

4.6 BIOLOGICAL RESOURCES

1. SUMMARY

The Vista Canyon project site occupies approximately 185 acres of land. The project's proposed development would result in the permanent conversion of, or temporary disturbance to, 117 acres of land. The impacted acreage consists of 35.7 acres of non-native annual grassland – ruderal habitat, 4.3 acres of coast live oak habitat, 0.7 acre of alkali rye habitat, 5.8 acres of chamise chaparral, 0.3 acre of mulefat scrub (including disturbed), 0.4 acre of Fremont cottonwood-willow riparian habitat, 6.3 acres of California sagebrush-buckwheat scrub, 1.7 acres of elderberry habitat, 26.8 acres of riparian scrub, 1.9 acres of mixed native and non-native habitat, 4.0 acres of big sagebrush scrub alliances, 8.0 acres of alluvial scrub (terrace), 0.5 acre of saltgrass habitat, 1.3 acres of yerba santa scrub, and 19.3 acres of disturbed land.

Significant impacts would occur with respect to herbaceous wetlands, river wash, alluvial scrub (terrace), arrow weed scrub, big sagebrush scrub, mulefat scrub, southern willow scrub, southern cottonwood-willow riparian forest, southern coast live oak riparian forest, coastal scrub and alliances/associations, coast live oak woodland, wildlife habitat, special-status birds and other non-avian special-status wildlife species, special-status plant species, and protected oaks. Significant indirect impacts would occur as a result of increased light and glare, increased non-native plant species, and increased human and domestic animal presence. Cumulative impacts include reducing total habitat area, limiting species diversity, restricting movement corridors, and overall loss of sensitive vegetation communities, wildlife habitat, and open area in the Santa Clarita Valley region.

With implementation of the proposed mitigation measures, the proposed project's direct, indirect, and cumulative impacts would be reduced to less than significant.

2. INVESTIGATIVE METHODS

a. Literature/Database Review

The May 2010 update of the California Natural Diversity Database¹ and the August 2008 California Native Plant Society² electronic database, for the Mint Canyon, California US Geological Survey (USGS) 7.5-minute quadrangle and surrounding eight quadrangle maps³ were reviewed to preliminarily identify special-status plant and animal species (those species considered rare, threatened, endangered, or

¹ California Department of Fish and Game. 2008. California Department of Fish and Game Natural Diversity Data Base © 2003, Version 3.1.0, Update May 1, 2010. Accessed June 2010.

² California Native Plant Society. 2010. California Native Plant Society Inventory of Rare and Endangered Plants, v7-10b, 4-10-10. Online: <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed June 2010.

³ The surrounding eight quadrangles include Green Valley, Sleepy Valley, Newhall, Oat Mountain, Warm Springs Mountain, Agua Dulce, San Fernando, and Sunland.

otherwise sensitive by various federal and state resource agencies) that have been known to historically occur in the vicinity of the project site. Other data sources reviewed and included in **Appendix 4.6** of this EIR are as follows:

- Biological Assessments prepared for the project site:
 - Biological Resources Assessment for 80-Acre Lost Canyon Property, Santa Clarita, California, prepared by Rincon Consultants, December 2005 (Biological Assessment, 2005);
 - *Biological Assessment*, Vista Canyon Ranch, Los Angeles County, California, prepared by Forde Biological Consultants and Dr. Edith Read, with review, critique, and contribution by Daniel S. Cooper (Cooper Ecological Monitoring), Dave Crawford (Compliance Biology), Ian Patrick Swift (Placerita Nature Center), and Ron Francis Jr. (Environmental Biology), August 2008 (*Biological Assessment*, 2008);
 - *Results of Focused Western Spadefoot Toad Surveys*, Backer Project, Los Angeles County, California, prepared by Dave Crawford, Compliance Biology, July 30, 2006 (*Spadefoot Survey*, 2006);
 - *Results of Focused California Gnatcatcher Surveys*, Backer Project, Los Angeles County, California, prepared by Dave Crawford, Compliance Biology, July 27, 2006 (*Gnatcatcher Survey*, 2006);
 - *Silvery Legless Lizard Survey*, Vista Canyon Ranch, Los Angeles County, California, prepared by Forde Biological Consultants, August 2006 (*Silvery Legless Lizard Survey*, 2006);
 - *Special Status Plant Survey of Lost Canyon Property*, Santa Clarita, Los Angeles County, California, prepared by Forde Biological Consultants, June 2006 (*Special Status Plant Survey*, 2006);
 - *Results of Arroyo Toad Surveys*, Backer Project, Los Angeles County, California, prepared by Dave Crawford, Compliance Biology, January 23, 2007 (*Arroyo Toad Survey*, 2007);
 - *Preliminary Oak Tree Report*, Vista Canyon Ranch, Los Angeles County, California, prepared by Forde Biological Consultants, January 2007 (*Preliminary Oak Tree Report*, 2007);
 - *Mammal Survey Summary Letter*, Vista Canyon Ranch, Los Angeles County; prepared by Dave Crawford, Compliance Biology, October 2007 (*Mammal Survey*, 2007);
 - *Survey for Special Status Plant Species*, JSB Property, Santa Clarita, Los Angeles County, California, prepared by Edith Read, November 2007 (*Special Status Plant Survey*, 2007);
 - *Delineation of Federal and State Jurisdiction*, City of Santa Clarita, prepared by Forde Biological Consultants, January 2006 (*Jurisdictional Delineation*, 2006);
 - *Coast Horned Lizard Survey*, Vista Canyon Ranch, Los Angeles County, California, prepared by Forde Biological Consultants, revised April 2008 (*Horned Lizard Survey*, 2008);
 - *Burrowing Owl Survey*, Vista Canyon Ranch, Los Angeles County, California, prepared by Forde Biological Consultants, revised April 2008 (*Burrowing Owl Survey*, 2008);

- *California Rapid Assessment Methodology Report*, Vista Canyon Ranch Property, Los Angeles County, prepared by Dudek, February 2009 (*CRAM Report, 2009*);
 - *Survey for Special Status Plant Species*, Vista Canyon, Santa Clarita, Los Angeles County, California, prepared by Edith Read, September 2009 (*Special Status Plant Survey, 2009*);
 - *Report on Winter Surveys of Special-Status Bird Species on Vista Canyon Property*, Los Angeles County, California, prepared by Peter H. Bloom and Chris A. Niemela, Bloom Biological, Inc., May 2009 (*Bloom Survey, 2009*);
 - *Western Spadefoot Toad Habitat Enhancement and Monitoring Plan*, Vista Canyon Project Site, County of Los Angeles, California, prepared by Dave Crawford, Compliance Biology, June 2010 (*Spadefoot Plan, 2009*);
 - *Conceptual Wetlands Mitigation & Monitoring Plan*, Vista Canyon, Los Angeles County, California, prepared by Dudek, May 2009 (*Wetlands Plan, 2009*);
 - *Slender Mariposa Lily Mitigation & Monitoring Plan*, Vista Canyon, Los Angeles County, California, prepared by Dudek, June 2009 (*Lily Plan, 2009*);
 - *Species Movement*, Vista Canyon Ranch, prepared by Forde Biological Consultants, September 2009 (*Species Movement Report, 2009*);
 - *City of Santa Clarita Vista Canyon Project Oak Tree Condition Status Update letter*; Richard Johnson & Associates, February 2010 (*Oak Tree Report Update, 2010*); and
 - *Vista Canyon Project Off Site Oak Tree Report*, City of Santa Clarita; Richard Johnson & Associates, February 2010 (*Off Site Oak Tree Report, 2010*).
- Distributional and habitat requirement information for common and special-status species available on the Internet and in print form.⁴

Sources used to determine the sensitivity status of biological resources are as follows:

- **Plants** – California Native Plant Society Inventory of Rare and Endangered Plants. v7-10b 04-10-10. Available at <http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>. Accessed June 2010.
- **Wildlife** – California Department of Fish and Game Special Animals List, July 2009. Available at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf>. Accessed June 2010.

⁴ Boyd, S. 1999. Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California. Rancho Santa Ana Botanic Garden Occasional Publications Number 5. Claremont, California.
California Department of Fish and Game. 2010. California Wildlife Habitat Relationships System, Biogeographic Data Branch, Life History Accounts and Range Maps. Available at <http://www.dfg.ca.gov/biogeodata/cwhr/cawildlife.aspx>. Accessed June 2010.
Nafis, Gary. 2010. California Reptiles and Amphibians. Available at <http://www.californiaherps.com/index.html>. Accessed June 2010.

- **Habitats**

- California Native Plant Society On-line Version of The Manual of California Vegetation, February 2000. Available at <http://davisherb.ucdavis.edu/cnpsActiveServer/index.html>. Accessed June 2010.
- California Department of Fish and Game List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database, September 2003. Available at <http://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>. Accessed June 2010.

b. Field Surveys

Biological field surveys were conducted by qualified biologists on the project site beginning in October 2005 (Rincon surveys) and continuing to July 2009. The surveys inventoried observable plant and animal species, mapped and characterized on-site habitats, and evaluated the potential of the site to support special-status species. Presence/absence surveys were conducted, including surveys for special-status plants, arroyo toad, western spadefoot, silvery legless lizard, coast horned lizard, burrowing owl, coastal California gnatcatcher, small mammals, and bats. Dates and personnel involved in the survey efforts are summarized in **Table 4.6-1, Surveys Conducted on the Vista Canyon Project Site**, below.

During all general and focused surveys, direct observations of reptiles, birds, and mammal species were recorded, as was wildlife sign, such as scat and tracks. In addition to species actually detected, expected use of the site by various wildlife species was evaluated from habitat analysis, combined with known habitat preferences of locally occurring wildlife species.

Nomenclature in this EIR is based on the following resources:

- **Plants:** The Jepson Manual (Hickman, 1993), as updated on the Jepson Online Interchange for California Floristics: <http://ucjeps.berkeley.edu/interchange.html>. Accessed June 2010.
- **Reptiles and Amphibians:** The Center for North American Herpetology Academic Portal to North American Herpetology: <http://www.cnah.org/index.asp>. Accessed June 2010.
- **Birds:** The American Ornithologists' Union Check-list of North American Birds: <http://www.aou.org/checklist/index.php3>. Accessed June 2010.
- **Mammals:** The Smithsonian National Museum of Natural History List of North American Mammals: <http://www.mnh.si.edu/mna/main.cfm>. Accessed June 2010.

**Table 4.6-1
Surveys Conducted on the Vista Canyon Project Site**

Taxonomic group	Surveyors	Survey dates/seasons
Waters/wetlands/streambed	Forde Biological Consultants	December 29, 2005 and January 7, 2006
Special-status plants	Dr. Edith Read	April 30 and May 21, 2006; April 1 and 29, 2007; March 11 to May 14, 2008; March 19, 20, and 30, April 23, and May 5, 2009
Arroyo toad*	Compliance Biology, Forde Biological Consultants	Commenced March 24, 2006; however, following discussions with the U.S. Fish and Wildlife Service, it was agreed that the habitat conditions (lack of perennial surface flows in this portion of the Santa Clara River, etc.), and the distance of the project site from known populations warranted cessation of the survey effort.
Western spadefoot	Compliance Biology, Forde Biological Consultants, Ron Francis Jr.	March 24 and 29, 2006; December 20 and 29, 2007; and January 9, 19, and 29, February 8, 18, 25, and 28, and March 6, 2008
Silvery legless lizard	Forde Biological Consultants	January 7 and August 1, 2006
Coast horned lizard	Forde Biological Consultants	July 14 and 17, August 1 and 8, 2006
Burrowing owl*	Forde Biological Consultants, Ron Francis Jr.	Breeding surveys: July 14 and 17, August 1 and 8, 2006 Winter surveys: December 29, 2007, January 8, 18, and 28, February 8, 18, 25, and 28, and March 6, 2008 General surveys: July 3 and 8, 2008
Coastal California gnatcatcher*	Compliance Biology	April 28, May 12 and 27, June 3, 18, and 25, 2006
Small mammals	Compliance Biology, Ron Francis Jr.	August 3 – 7, 2007
Bats	Forde Biological Consultants	August 3 – 7, 2007
Vegetation communities	Forde Biological Consultants	March, April, and May 2008
Wintering bird surveys	Bloom Biological	February – March 2009
Oak Tree Survey	Forde Biological Consultants; Richard Johnson & Associates	January 20, August 1, 2006 (Forde Biological Consultants); February 2009, February 2010, March 2010, and May 2010 (report dates/Richard Johnson & Associates)

*: surveys conducted per CDFG or US Fish and Wildlife Service (USFWS) protocols

3. EXISTING CONDITIONS

The Vista Canyon project site is located on the Mint Canyon 7.5-minute USGS quadrangle map in northern Los Angeles County. The site is located within unincorporated Los Angeles County, adjacent to the City of Santa Clarita, and is surrounded by development. The project site is situated south of State Route 14 (SR-14) and east of its overcrossing of the Santa Clara River, west of Sand Canyon Road, and north of the Metrolink railroad tracks (**Figure 4.6-1, Vista Canyon Project Site**). Most of the project site lies primarily on flat terraces above the active channel of the Santa Clara River. Historical impacts, along with the cumulative effects of more recent activities, including dumping, off-road vehicle activity (not sanctioned by the current owners of the property), and utility construction/maintenance, have significantly disturbed the remaining vegetation communities, and have resulted in a complex mix of native and non-native vegetation types on the project site.

The plant and wildlife resources that characterize the Vista Canyon project site are discussed below. Because wildlife often utilize a variety of vegetation communities, wildlife species observed or likely to occur on the project site are described separately. Special-status plant and wildlife species potentially present on the site, based on existing habitats and known geographical ranges, are discussed in the Special-Status Biological Resources section of this document.

a. Vegetation

Vegetation across the project site reflects a confluence of topographic, hydrologic, climatic, and human disturbance factors. The Santa Clara River Corridor occupies portions of the northern half of the project site, and much of the central portion of the project site is relatively flat and adjacent to the Santa Clara River Corridor (River Corridor). A small hill north of the river, locally referred to as Mitchell Hill, is an outlying fragment of the Sierra Pelona mountain system to the north, which has become isolated by roads and development. South of the river, two small hills represent fragments of the northwestern San Gabriel Mountain foothills. Elevations across the project site range from about 1,470 feet (~ 450 meters) to about 1,580 feet (~ 480 meters). Historical impacts, along with the cumulative effects of more recent activities, including dumping, off-road vehicle activity, and utility construction/maintenance, have significantly disturbed the remaining natural vegetation communities, and have resulted in a complex mix of native and non-native species. Another notable feature of the vegetation is the mosaic of species reflecting a transitional climate between coast and desert, which is expected in the eastern portion of the Santa Clarita Valley. For example, California sagebrush (*Artemisia californica*), typically associated with coastal scrub communities, is present with species typical of drier, desert climates, such as big sagebrush (*Artemisia tridentata*), sandpaper plant (*Petalonyx thurberi*), and white-stemmed rabbitbrush (*Chrysothamnus nauseosus* ssp. *albicaulis*). **Figure 4.6-2, Vegetation Types on the Vista Canyon Project Site**, includes a map depicting vegetation types present on the project site. **Appendix 4.6** includes a list of all plants observed.



SOURCE: Google Earth – March 2006, Impact Sciences, Inc. – June 2010

FIGURE 4.6-1

Vista Canyon Project Site



SOURCE: Edith Read, Ph.D. - May 2009

FIGURE 4.6-2

Vegetation Types on the Vista Canyon Project Site

The vegetation types described in this section are based on field observations from March, April, and May of 2006, 2007, 2008, and 2009. Vegetation classifications for California generally follow the system endorsed by the California Department of Fish and Game (CDFG).⁵ The “Series” classification of Sawyer and Keeler-Wolfe is used where such a designation appears to be accurate based on visual estimation of plant cover. However, because some on-site vegetation types do not fit standard classifications, the Sawyer and Keeler-Wolfe methodology was used to modify the names of vegetation types to accurately reflect field observations. The classifications described in this section are based on dominance of species in the tree, shrub, and herbaceous strata. Where appropriate for a given vegetation type, a cross-reference to the older California Natural Diversity Database (CNDDDB)/Holland community classification system of the CDFG is provided as a footnote.

(1) Tree-Dominated Vegetation Types

Cottonwood and Cottonwood-Willow Associations (3.9 acres) – A stand of mature cottonwoods (*Populus fremontii*) is present on the west end of the project site within the riparian scrub. Its understory is alluvial scrub with a species composition similar to the surrounding floodplain (see discussion of riparian scrub vegetation, next section). Cottonwoods are elsewhere associated with larger stands of willows (*Salix exigua*, *S. goodingii*, *S. laevigata*, and *S. lasiolepis*). These are described as Fremont cottonwood-willow riparian forest and Fremont cottonwood-riparian scrub in the *CRAM Report, 2009* (see **Appendix 4.6**).

These Fremont cottonwood-willow associations are late- or mid-successional, depending on the maturity of the vegetation. A late-successional Fremont cottonwood-willow association is present in the northeast quadrant of the project site adjacent to the riparian scrub. This association consists of mature cottonwoods and willows as well as a densely vegetated wetland understory, primarily cattails (*Typha domingensis*). With one exception, mid-successional Fremont cottonwood-willow associations tend to be concentrated along the northwest margin of the riparian scrub. These stands are associated with seasonally dry surface conditions, where relatively drought-tolerant mulefat adds diversity to the understory vegetation. One exception is a Fremont cottonwood-willow association above the floodplain adjacent to the eastern boundary of the project site and extending off site. Nuisance runoff from adjacent off-site residential properties supports this stand.

Coast Live Oak Associations (9.0 acres) – Coast live oak (*Quercus agrifolia*) is present in scattered groups and as isolated trees at various locations around the project site, primarily in the south and east. Three associations are distinguished here depending on whether the associated understory vegetation consists

⁵ Sawyer, J.O. and T. Keeler-Wolfe, 1995. *A Manual of California Vegetation*, California Native Plant Society.

primarily of herbaceous species, mixed sagebrush species, or California sagebrush. This is similarly referenced as coast live oak series in the *CRAM Report, 2009* (see **Appendix 4.6**).

(2) Shrub-Dominated Vegetation Types

Riparian Scrub (79.5 acres) – The riparian scrub is a mosaic of riparian and alluvial scrub vegetation types and does not fit any existing standard classification. This riparian scrub is distinguished from both the relatively low cover of herbaceous annual vegetation (compared to adjacent terraces) across portions of the northern half of the project site, and the adjacent uplands. The habitat is comprised of a complex mosaic of multiple braided channels and alluvial deposits, and is considered as one dynamic hydrogeomorphic unit. The channels vary in size and vegetative composition, ranging from narrow bands of mulefat to sparse stands of immature cottonwoods. The channels meander through small alluvial deposits dominated by upland alluvial scrub species such as scalebroom (*Lepidospartum squamatum*), buckwheat (*Eriogonum fasciculatum*), deerweed (*Lotus scoparius*), and chaparral yucca (*Yucca whipplei*). One mature sycamore (*Platanus racemosa*) was also observed. Invasive non-native perennials such as salt cedar (*Tamarix parviflora*) and giant reed (*Arundo donax*) also are present. Portions of this area are referenced as riparian scrub, alluvial scrub, and scalebroom series in the *CRAM Report, 2009* (see **Appendix 4.6**).

Big Sagebrush Associations (4.9 acres) – Three vegetation types dominated by big sagebrush are recognized, depending on shrub density and co-occurrence of other shrub species. A homogenous, relatively isolated stand of big sagebrush is present on the eastern side of the project site, on a high terrace adjacent to the active channel and the western terminus of Lost Canyon Road. Big sagebrush also is present on a low terrace adjacent to the riparian scrub in the central portion of the site. Shrub density and diversity in this community is relatively low and the understory consists primarily of non-native grasses and forbs. The species is present with scalebroom along a section of freeway berm northeast of the Lost Canyon Road entrance to the site. For the purpose of vegetation classification, big sagebrush is discussed at the species level, inclusive of two recognized subspecies *Artemisia tridentata* ssp. *parishii* and *A. t.* ssp. *tridentata*. Herbarium records indicate that the *parishii* subspecies is not restricted to the Santa Clara River Valley and its range overlaps that of the *tridentata* subspecies; both are likely represented on the project site. This is referenced as big sagebrush-buckwheat series in the *CRAM Report, 2009* (see **Appendix 4.6**).

California Sagebrush – California Buckwheat Series (6.3 acres) – California sagebrush and California buckwheat series occurs on two small hills in the southwestern portion of the project site, which are geologically part of the northwestern San Gabriel Mountains. These hills support a herbaceous understory, including branching phacelia (*Phacelia ramosissima*), cryptantha (*Cryptantha muricata*), chia (*Salvia columbariae*), Turkish rugging (*Chorizanthe staticoides*), and mariposa lily (*Calochortus clavatus* ssp.

gracilis). This is similarly referenced as California sagebrush-buckwheat series in the *CRAM Report, 2009* (see **Appendix 4.6**).

Chamise Series (7.2 acres) – Chamise (*Adenostoma fasciculatum*) is present as a dominant species on a hill in the northeastern quadrant of the project site. One isolated juniper (*Juniperus californica*) and one isolated mature coast live oak also occur on this hill. The understory flora is diverse, including an abundance of common tarplant (*Deinandra fasciculata*) and lomatium (*Lomatium utriculatum*), and scattered splendid mariposa lilies (*Calochortus splendens*). While this understory flora is diverse, this community overall is not considered equivalent to “Wildflower Field,” as recognized by the California Natural Diversity Database, due to the prominence of shrubby species. This is also referenced as chamise series in the *CRAM Report, 2009* (see **Appendix 4.6**).

Blue Elderberry – Mixed Sagebrush – Grassland (2.1 acres) – Blue elderberry is present in high density in the southeastern section of the project site, along a transition zone between mixed big sagebrush and grassland communities.

Mixed Sagebrush Native and Non-Native Associations (1.9 Acres) – Two associations of sagebrush are distinguished based on the co-occurrence of big sagebrush and California sagebrush with white-stemmed rabbitbrush. These associations are concentrated along the southern boundary of the project site. Shrub density is high and herbaceous understory is scarce, reducing the species diversity of these vegetation types.

Mulefat Series (0.3 acres) – Outside of the riparian scrub, mulefat is present as the sole dominant shrub in a small depression adjacent to the southern boundary of the project site. This is also referenced as mulefat series in the *CRAM Report, 2009* (see **Appendix 4.6**).

Alluvial Scrub (Terrace) Associations (8.1 acres) – Big saltbush (*Atriplex lentiformis*) and four-wing saltbush (*A. canescens*) occur in scattered stands, either as a sole dominant or in association with non-native grassland or wild rye (*Leymus condensatus*). This is referenced as saltbush or wild rye-saltbush scrub in the *CRAM Report, 2009* (see **Appendix 4.6**).

Yerba Santa Associations (1.3 acres) – Two yerba santa (*Eriodictyon crassifolium*) associations are distinguished. One association is co-dominant with California sagebrush on a small hill in the southern part of the project site. The second association includes scalebroom with non-native grasses on a terrace adjacent to the riparian scrub.

(3) Herb-Dominated Vegetation

Six types of vegetation dominated by herbaceous species are recognized, depending on the relative abundance of grasses and forbs. Most of the relative cover in these associations is provided by non-native species and referenced collectively as non-native annual grassland – ruderal series (37.3 acres). Herbaceous vegetation types include alkali rye series (0.1 acre), alkali rye series with emergent blue elderberry (0.6 acre), non-native herbaceous, non-native herbaceous with emergent blue elderberry, non-native herbaceous with emergent blue elderberry, willow and mulefat, and saltgrass series (0.5 acre). Exceptions to dominance of non-natives in herbaceous vegetation types are the saltgrass and alkali rye series. The saltgrass series is located in the central southern section of the project site and consists primarily of native saltgrass (*Distichlis spicata*), although taller non-native forbs such as mustard (*Brassica*, *Hirschfeldia* and *Sisymbrium* spp.) may appear seasonally dominant. The alkali rye (*Leymus triticoides*) series consists almost entirely of native alkali rye. The alkali rye vegetation type is present in two areas in the central southern area of the site, one of which also includes one emergent blue elderberry. Saltgrass and alkali rye are perennial grasses, which under natural conditions are indicative of locally high soil moisture, persisting into the late spring or early summer season, often due to a high clay content of the soil. These vegetation types are referenced as saltgrass series and non-native annual grassland-ruderal in the *CRAM Report, 2009* (see **Appendix 4.6**).

b. Common Wildlife Resources

For purposes of this discussion, the term “common wildlife” refers to animal species that are not otherwise designated special-status CDFG's Special Animals List, February 2008.

Despite alteration of natural conditions arising from historical and existing disturbance (e.g., unauthorized off-road vehicles, dumping, and permitted utility construction/maintenance, existing single-family home and ancillary storage area, etc.), the project site still supports a diversity of common wildlife. While some of these species may be entirely dependent on a single vegetation community, most require a variety of vegetation communities to provide the necessary shelter, water, food, and other life history requirements.

Fish – The Santa Clara River, as it flows through and adjacent to the project site, is dry most of the year with surface flows typically lasting only a few days following large storm events during the winter months. Nuisance flows from adjacent development near La Veda Avenue on the east feeds a low-flow channel that infrequently drains into portions of the active channel of the river on the project site. Since the initiation of biological surveys on this site in 2006, no common fish species have been observed in the river within or immediately adjacent to the project site.

Amphibians and Reptiles – Common amphibian and reptile species observed on the project site include Pacific chorus frog (*Pseudacris regilla*), California toad (*Anaxyrus boreas halophilus*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), side-blotched lizard (*Uta stansburiana*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Common amphibian and reptile species with a potential to occur include California chorus frog (*Pseudacris cadaverina*), blackbelly slender salamander (*Batrachoseps nigriventris*), California alligator lizard (*Elgaria multicarinata multicarinata*), Skilton's skink (*Eumeces skiltonianus skiltonianus*), California kingsnake (*Lampropeltis getula californiae*), red coachwhip (*Masticophis flagellum piceus*), California striped racer (*M. lateralis lateralis*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*).

Birds – The native and non-native vegetation provides forage and cover; and, road puddles, the seasonal, infrequent, low-flow channel and irrigation runoff emanating from La Veda Avenue provide a water source, making the project site attractive for resident, winter, and migrant birds. Biologists observed or otherwise detected a total of 87 native and 4 non-native bird species on the project site. A good number of the detections were simply birds flying over the project site or moving through the area during spring and fall migration. In addition, wintering bird field surveys were conducted by Bloom Biological between February 8 and March 15, 2009. Surveys were conducted during daylight hours by walking and/or driving through all habitat types within the project site. All birds detected were recorded. No special status avian species were observed on the property. Costa's hummingbird (*Calypte costae*) and great-tailed grackle (*Quiscalus mexicanus*) were species observed during the winter surveys and not previously noted during earlier surveys.

A list of all birds observed or otherwise detected during preparation of the *Biological Assessment 2008*, is included in the Wildlife List provided in **Appendix 4.6** of this EIR. The *Bloom Survey, 2009*, also contains a list of all birds observed on the project site.

Mammals – Common mammals observed or otherwise detected on the project site include California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), Virginia opossum (*Didelphis virginiana*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), and northern raccoon (*Procyon lotor*). Common mammals captured during trapping include California pocket mouse (*Chaetodipus californicus*), agile kangaroo rat (*Dipodomys agilis*), dusky-footed woodrat (*Neotoma fuscipes*), and deer mouse (*Peromyscus maniculatus*). Common bats detected using ANABAT equipment include Mexican free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), and California myotis (*Myotis californicus*). These bat species could utilize mature oak trees, and the railroad and Lost Canyon Highway 14 underpasses as roosts sites; however, based on the limited number of detections, the project site does not appear to support a significant bat roost.

Common mammals with potential to occur include common gray fox (*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), and long-tailed weasel (*Mustela frenata*). Western small-footed myotis (*Myotis ciliolabrum*), long-legged myotis (*Myotis volans*), and western pipistrelle (*Pipistrellus hesperus*) may occur from time to time, particularly during migration. Mountain lion (*Felis concolor*) are known to range throughout the San Gabriel Mountains and the Castaic Ranges; however due to significant nearby and on-site disturbances, surrounding development, and lack of dense cover, mountain lion are not expected to frequent the site or immediately adjacent areas, and no signs of mountain lion were detected on site during the biological surveys.

(1) Wildlife Habitat Linkages/Corridors/Regional Open Space

The *Species Movement Report, 2009*, prepared by Forde Biological Consultants (EIR, **Appendix 4.6**) evaluated the need for movement corridors through the project site. The *Species Movement Report, 2009*, supplemented the work begun by the California Wilderness Coalition, published in “Missing Linkages: Restoring Connectivity to the California Landscape.”⁶ This report identified linkages, potential linkages, and threats to linkages in each ecoregion in California.

In general, a linkage is a feature that connects at least two blocks of habitat. The assumed function of a linkage is to facilitate the movement of wildlife between blocks of fragmented open space areas. A “Landscape Linkage” is a large regional corridor between blocks of habitat meant to facilitate wildlife movement. This type of linkage may or may not be constricted, but is essential to maintain the connectivity function of a particular region. A “Connectivity Choke Point” is a narrow, often short, and impacted corridor between blocks of habitat. This type of linkage typically requires that wildlife move through a choke point structure. Choke point structures include culverts, underpasses, overpasses, or tunnels that were not specifically designed for movement, but incidentally provide movement opportunities through otherwise impenetrable barriers. A “Missing Link” is a highly impacted area that provides limited or no movement between blocks of habitat.

The project site is located in the northern portion of the “South Coast Ecoregion,” which encompasses the Sierra Madre Mountains and Tehachapi Mountains to the north, the Antelope Valley, Little San Bernardino Mountains, Coachella Valley, and Imperial Valley to the east, Baja California, Mexico to the south, and extends west to the Pacific Ocean. The Missing Linkages conference identified 69 potential or known linkages within the South Coast Ecoregion, including the Santa Clara River.

⁶ Penrod, K., R. Hunter, and M. Merrifield. 2001. Missing Linkages: Restoring Connectivity to the California Landscape, Conference Proceedings. Co-sponsored by the California Wilderness Coalition, The Nature Conservancy, U.S. Geological Survey, Center for Reproduction of Endangered Species, and California State Parks.

South Coast Wildlands, in partnership with numerous other agencies, used data provided by conference participants to designate “Regional Linkages” throughout the ecoregion. The regional linkages were developed based on the requirements of plants, invertebrates, amphibians, reptiles, birds, and mammals (small and large). There are no regional linkages on or adjacent to the project site; however, there are two regional linkages in the general vicinity.

The first regional linkage is the San Gabriel – Castaic Connector, a linkage connecting the Castaic Ranges of the Sierra Madre formation north of the project site to the San Gabriel Mountains, primarily to the southeast of the project site. Both mountains ranges are part of the Angeles National Forest. The nearest to the project site, this regional linkage reaches is approximately 2 miles east of the project site, and east of the existing Sand Canyon community. The regional linkage is described in the report entitled, “South Coast Missing Linkages Project: A Linkage Design for the San Gabriel – Castaic Connection,” prepared by South Coast Wildlands.⁷

The second regional linkage in the vicinity of the project site is the Santa Monica-Sierra Madre Connector, a chain of linkages that connects the Santa Monica Mountains to the distant southwest of the project site, the Simi Hills, the Santa Susana Mountains, and eventually the Sierra Madre (San Gabriel Mountains) south of the project site. This chain is located approximately 13 miles west and south of the project and is described in the report titled, “South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection,” prepared by South Coast Wildlands.⁸

The Santa Clara River runs east – west, traversing through the north portion of the project site. Within the project site, the river’s northern bank is approximately 200 feet from SR-14. The Santa Clara River connects the regional linkages described above. Where the Santa Clara River meets the regional linkages east of the project site, it has been included within them. The regional linkages and the Santa Clara River connect both portions of the Angeles National Forest and the open space that surrounds the City of Santa Clarita. South Coast Wildlands did not include the three choke point crossings identified by conference participants as part of the San Gabriel – Castaic Connection. The South Coast Wildlands report describing the San Gabriel – Castaic Connection includes an exhibit that depicts the Lost Canyon Road SR-14 Underpass as a “potential crossing structure,” meaning there may be potential for movement from the project site to the north, in addition to the Santa Clara River east-west linkage. The South Coast Wildlands report did identify the area immediately south of the project site as a linkage.

⁷ Penrod, K., C. Cabanero, P. Beier, C. Luke, W. Spencer, E. Rubin. 2004. South Coast Missing Linkages Project: A Linkage Design for the San Gabriel – Castaic Connection. Produced by South Coast Wildlands, Idyllwild, CA.

⁸ Penrod, K., C. Cabanero, P. Beier, C. Luke, W. Spencer, E. Rubin, R. Sauvajot, S. Riley, and D. Kamradt. 2006. South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection. Produced by South Coast Wildlands, Idyllwild, CA.

For wildlife to move east from the project site, it must move along the Santa Clara River. There are no other opportunities for wildlife to move east from the project site, as it is directly adjacent to the community of Sand Canyon and other existing residential and commercial development at SR-14 and Sand Canyon Road. The Sand Canyon Road Bridge spans the Santa Clara River and does not present a physical barrier. There are no other physical barriers that could preclude species movement from the project site east along the Santa Clara River. However, the existing bridge, homes, ranches, and commercial development create a connectivity choke point for terrestrial species. In many cases, this existing development forces terrestrial species into the active river channel, which most terrestrial species would not be able to use during infrequent major storm events. When dry or when average or smaller storm events occur, terrestrial species can move along the Santa Clara River toward the San Gabriel-Castaic Connection approximately 2 miles east of the project site. Upon reaching the San Gabriel-Castaic Connection, terrestrial species are able to move north or south throughout the Angeles National Forest.

For wildlife to move west from the project site, it must move along the Santa Clara River. Existing development blocks any other passage to the west. The numerous bridges that span the Santa Clara River do not present physical barriers and no other physical barriers preclude species movement from the project site west along the river. However, the bridges, homes, and commercial development along the river create connectivity choke points for terrestrial species, forcing them into the active river channel. Most terrestrial species would not be able to use the active river channel during infrequent major storm events. When dry or during smaller storm events, terrestrial species can move from the project site, along the Santa Clara River towards the South Fork of the Santa Clara River approximately 6.5 miles west, or toward San Francisquito Creek approximately 7 miles west, or under the I-5 approximately 8 miles west and toward the Santa Monica-Sierra Madre Connection, approximately 13 miles west. The South Fork of the Santa Clara River, San Francisquito Creek, and the Santa Monica-Sierra Madre Connection also connect the large blocks of habitat that surround the City of Santa Clarita.

Open areas adjacent to the Santa Clara River between I-5 and the project site are limited; residential and commercial development within the City of Santa Clarita dominate, offering very little opportunity for movement north and south away from the river. Where open areas exist, they provide opportunities for movement away from the river; however, these open areas dead-end into developed areas, forcing species to return to the river. For example, there is a large open area north of the Santa Clara River at Golden Valley Road; however, approved development on the north side of the River and recent development near the intersection of Plum Canyon Road and Santa Catarina Road will preclude further movement beyond the large open area. The utility corridor that extends north from this large open area is fenced where it meets Bouquet Canyon Road and Rosedell Drive. There is also a large open area south of the Santa Clara River near the intersection of Soledad Canyon Road and Bouquet Canyon Road; however,

to access this area, species must cross six lanes of traffic on Soledad Canyon Road and a band of commercial development surrounded by fences. This property (the Whittaker/Bermite site) is also approved for development (City of Santa Clarita, Jeff Hogan, Senior Planner, Pers. Comm.). Regardless, according to the Species Movement Report, 2009, species could not negotiate the six-lane Soledad Canyon Road, which is the primary east-west roadway in the Santa Clarita Valley, and the associated commercial development.

The only opportunities for movement away from the Santa Clara River between I-5 and the project site is via the South Fork of the Santa Clara River or San Francisquito Creek. Although numerous bridges cross the South Fork of the Santa Clara River and San Francisquito Creek, they do not present physical barriers to movement north and south away from the Santa Clara River. However, along the South Fork the bridges and bank protection design create connectivity choke points for terrestrial species forcing them into the active channel. Upland areas adjacent to San Francisquito Creek provide opportunities for movement outside its active channel and the bike trail may provide passage under bridges during major storms. As such, San Francisquito Creek appears better than the South Fork for movement.

Based on the *Species Movement Report, 2009*, Lost Canyon Road is fenced immediately on the west and commercial development is immediately east; and therefore, species using the Lost Canyon Road SR-14 Underpass to move north away from the project must first move a short distance along Lost Canyon Road. Upon reaching the end of Lost Canyon Road, species would find Soledad Canyon Road, a major highway. Beyond Soledad Canyon Road, there is a small open area to the northwest surrounded by residential development. To get to this area, species must cross four lanes of traffic on Soledad Canyon Road, which would be striped to six lanes in the future (City of Santa Clarita General Plan). If species are successful in crossing this road, they would find little in the way of cover or resources. The limited open areas are dominated by fuel-modified non-native grasses and are surrounded by development. Continuing northwest, species must move through a park, which also lacks cover. Species must then cross Sarita Avenue to reach a narrow open area located between single-family residences. This area is less than 20 feet (~ 6 meters) wide and about 800 feet (~ 244 meters) long. If species can negotiate the narrow area, they would reach a larger open area that is also surrounded by residential development. To reach an extensive block of habitat beyond this open area, species must move north, find ways through the residential developments, cross 4-lane Sierra Highway, and negotiate a linear belt of commercial development that is surrounded by fences and walls.

According to the *Species Movement Report, 2009*, most species are not expected to move through the Lost Canyon SR-14 Underpass; however, common urban adapted species, including raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*), may do so. The Lost Canyon Road SR-14

Underpass meets the definition of a missing link because it provides no function between blocks of habitat.

In comparison to the north side of the project site, the south side of the site is comparatively better at this time. There are vacant, undeveloped properties and designated open space areas located between the existing homes within Sand Canyon and Fair Oaks Ranch south of the project site. Although the Metrolink Railroad is located between the project site and the vacant properties and designated open space, it does not pose a barrier to movement. A commercial horse ranch located immediately south of the project site appears porous; however, horses and ever-present activity (ranch hands, residents, etc.) likely push species around either side of the active portions of the ranch.

At its narrowest point, the distance between the homes in Sand Canyon and Fair Oaks Ranch is approximately 700 feet (~ 213 meters). If the irrigated and landscaped slope of Fair Oaks Ranch is included, the distance is approximately 1000 feet (~ 305 meters). The distance between Fair Oaks Ranch and the commercial horse ranch is 140 feet (~ 43 meters). Within this area, the horse ranch is cut into a slope, the Metrolink rail line cuts through a small hill, and there is an unpaved road, and other areas that are devoid of vegetation. This development has created an island of native vegetation with steep, almost vertical, drop offs, that likely limits movement in this area. The area between the horse ranch and the fence lines of the single-family homes to the east in Sand Canyon is approximately 650 feet (~ 198 meters). The east side of the horse ranch is wider and superior, from an animal movement perspective, when compared to the west side described above. The area between the horse ranch and La Veda Avenue immediately to the east is only 600 feet (~ 183 meters).

The *Species Movement Report, 2009*, provides evidence indicating that coyote, bobcat (*Lynx rufus*), and mule deer (*Odocoileus hemionus*) cross the rail tracks at the eastern end of the project site, generally in the area proposed for Oak Park. Track studies conducted by Forde Biological Consultants in 2007 also indicate that raccoon and skunk cross the rail tracks. However, there was no evidence indicating that this area had been used by mountain lion (*Felis concolor*). Based on experience and knowledge of mountain lion behavior, adult mountain lions are not expected to use the undeveloped land and designated opens space south of the project site for movement. Between 2003 and 2009, Forde Biological Consultants conducted numerous surveys for other projects along the portion of the Santa Clarita River from Ventura County upstream to the location of the Golden Valley Bridge/Cross Valley Connector. During those times, Forde Biological Consultants did not detect mountain lion along or in any open areas adjacent to the Santa Clara River east of I-5. However, Forde Biological Consultants had detected numerous signs of mountain lion west of I-5, on either side of the Santa Clara River, and had observed individuals on two separate occasions. This evidence indicated that mountain lion avoid developed areas within the City of Santa Clarita. In fact, based on the *Species Movement Report, 2009*, telemetry studies have shown that

mountain lion typically avoid developed areas. Even so, male juvenile mountain lion, other large mammals, and common urban adapted species may not be deterred by development.

If species move from the Angeles National Forest northbound through the project site to the Santa Clara River, they can then move east from the project site along the Santa Clara River; however, doing so returns them back to the same block of habitat. That is, they return to the section of the Angeles National Forest that is south of SR-14. Species starting from the Angeles National Forest south of the project site and travelling east would face fewer restrictions on movement by following Angeles National Forest all the way to the San Gabriel-Castaic Connection, without detouring through the project site and development within the City of Santa Clarita along the Santa Clara River.

Alternatively, if species move from the Angeles National Forest northbound through the project site to the Santa Clara River, they could move west along the Santa Clara River. By moving west along the Santa Clara River, species can use the South Fork or San Francisquito Creek to move north or south into open space areas, including the Angeles National Forest when using San Francisquito Canyon, or they may continue west, eventually crossing under I-5 and toward the Santa Monica-Sierra Madre Connection. Although there are limited opportunities for movement of species through the project site, there are alternatives that offer higher chance for successful movement.

For example, if species move from the Angeles National Forest northbound through the project site to the Santa Clara River and then move west, they must travel approximately 10 miles to cross under the I-5; however, if species move west from the Angeles National Forest, without travelling north through the project site, wildlife need only travel 5 miles or less to cross the I-5. Not only is the latter route shorter, but also more open with little to no development.

The project applicant has proposed to maintain and enhance the River Corridor through the project site. From the project site, movement can occur east or west along the Santa Clara River. The value of the Santa Clara River is clear; species can move the entire length of the river and would only be precluded from doing so during infrequent major storm events. However, the Species Movement Report, 2009, concluded that in determining the value to species movement of the north/south movement corridor from the river through the project site, edge effects must be considered.

Edge effects are the result of two or more contrasting environments on an ecosystem. Noise, lights, pets, people, and vehicles are major human factors contributing to edge effects. For example, many species move at night and will avoid areas that have artificial night lighting. Noise disturbance caused by intense human activity also tends to discourage species movement through areas surrounded by development.

On the project site, Forde Biological Consultants has observed off-road vehicle use, camping (homeless), gatherings, other unauthorized activities, and illegal dumping, which intensifies at night. All of these unauthorized uses are common on vacant, undeveloped land surrounded by development. South of the project site, edge effects on species movement result from development in Fair Oaks Ranch, development within Sand Canyon, and the commercial horse ranch located between the two. Upon completion, Fair Oaks Ranch is expected to consist of approximately 1,800 residential units. The Sand Canyon community will also continue to develop over time. The edge effects associated with noise and light alone in these two communities likely preclude adult mountain lions from using the vacant land and designated open space south of the project site to move between the Angeles National Forest and the Santa Clara River; as discussed, adult mountain lions avoid developed areas. Although Forde Biological Consultants does not expect adult mountain lions to use the area south of the project site, male juveniles have a low potential to move through it when forced out of their natal area by adults.

Another consideration is the potential for development of the vacant lots and construction of California's High Speed Rail south of the project site. Most of the vacant land within Sand Canyon south of the project site is under private ownership and will likely be developed consistent with zoning standards in the future, unless a public agency or conservation organization acquires the properties. Most of this land, zoned A-1-2, permits residential development. This existing zoning designation may also increase the density of development in Sand Canyon through the subdividing of existing developed parcels. According to the "South Coast Missing Linkages Project – Linkage Design for the San Gabriel – Castaic Connection" report, California's High Speed Rail may be constructed south of the project site using the existing Metrolink Railroad right-of-way. According to the report, fences would be installed where rails occur above ground. Construction of this High Speed Rail line would preclude movement between the Santa Clara River and the Angeles National Forest via the project site.

The conclusion reached in the *Species Movement Report, 2009*, is that from the project site, species are not expected to move north. The Lost Canyon Road SR-14 Underpass is a missing link with little or no wildlife movement function. Although existing development along the Santa Clara River create chokepoints in some areas, wildlife can negotiate the length of the river, moving east or west, and eventually reach the Angeles National Forest and other open space that surround the City of Santa Clarita. Evidence suggests that deer, raccoon, skunk, bobcat, and coyote currently move south from the Santa Clara River through the project site to Angeles National Forest and vice versa. Based on the amount of species documented in the *Biological Assessment, 2008*, movement of other species undoubtedly occurs; however, edge effects associated with Fair Oaks Ranch are as yet to fully unfold and future development in Sand Canyon could also limit north/south movement. Currently, species moving between the Santa Clara River and the Angeles National Forest via the project site, are more likely to move through the area

on the east side of commercial horse ranch rather than the area on its west side.

The only substantial areas within the City of Santa Clarita that allow for movement away from the Santa Clara River are the South Fork and San Francisquito Creek. In the past, land owners, primarily Newhall Land, have been required to set aside open areas adjacent to the Santa Clara River as upland buffers with the intent that they would facilitate movement along the Santa Clara River and provide areas of refuge during major storms. This development pattern is also evident along San Francisquito Creek.

According to the *Species Movement Report, 2009*, decision makers often set aside linkages without identifying the specific blocks of habitat to be connected and often without regional perspective. Given the proximity of the project site to the San Gabriel-Castaic Connection to the east, the existing function of the Santa Clara River, the South Fork, and San Francisquito Creek, encouraging species movement around developed portions of the City of Santa Clarita is preferred rather than movement through the developed portions. Species should only be encouraged to move through the City of Santa Clarita via the Santa Clara River, the South Fork of the Santa Clara River, and San Francisquito Creek. The efforts by South Coast Wildlands and the City of Santa Clarita to foster the preservation of the regional linkages, and the fact that the Santa Clara River connects two regional linkages, wildlife may benefit more in having project open space set aside adjacent to the Santa Clara River as presently proposed by the project applicant than would open space areas designed along the southern or eastern project boundaries.

Open space set aside for north/south movement between the Santa Clara River and the Angeles National Forest within the project site, would best be achieved using the east side of the project site, east of the commercial horse ranch. This area is wider and has more cover than the west side of the commercial horse ranch and it is currently utilized to some degree by certain common species. Monica Bond of the Center for Biological Diversity has suggested that linkages must be as broad as possible, with a minimum width of 1,000 feet.⁹ Bentrup suggests a minimum width of 100 feet for plants, invertebrates, reptiles, amphibians, and for birds that use habitat edges, a minimum width of 200 feet for small mammals and birds that use habitat interiors, and a minimum width of 330 feet for large mammals. Other reports recommend movement corridors less than 200 feet in width (see *Species Movement Report, 2009* [Appendix 4.6]).

According to the *Species Movement Report, 2009*, wide corridors, both upland and riparian, provide greater habitat area with reduced edge effects, while generally promoting more opportunities for species movement. As discussed, the narrowest point between the horse ranch and La Veda Avenue is approximately 600 feet. The proposed project includes Oak Park, which is to be located near the east side

9 Bond, M., 2003 Principles of Wildlife Corridor Design. The Center for Biological Diversity.

of the project site. If current function is to be maintained, Oak Park should be at or near the 600 feet in width, and be aligned with the open area between the horse ranch and Sand Canyon. However, as indicated above, a smaller corridor width of approximately 300 to 400 feet could accommodate the expected species on the project site.

In addition to a typical neighborhood park, Oak Park should include appropriate habitat types (oak woodland, coastal sage, and grassland), and be designed so that the majority of movement occurs through its center and that features be included that preclude or minimize human and pet interaction with its center. These habitat features also should be designed so that they deflect movement of large mammals back to the center of Oak Park. An acceptable crossing under Lost Canyon Road should be incorporated into the corridor to provide direct access to the Santa Clara River.

c. Special-Status Biological Resources

The following is a discussion of special-status plant and animal species observed and potentially present on the Vista Canyon site. Results and conclusions are based on habitat types present on the project site, a review of the CNDDDB (2010) and CNPS (2010) databases and other pertinent literature, known geographic ranges of these species, and data collected during general and focused field surveys. Also included in this section is a discussion of vegetation communities on the project site that are considered unique, of relatively limited distribution, under the jurisdiction of federal or state resource agencies, or of particular value to wildlife.

Special-status plant and animal species are those appearing on the Special Vascular Plants, Bryophytes, and Lichens List, and the Special Animals List, both compiled by CDFG and published April 2010, and July 2009, respectively.

Special-status plants are species, subspecies, or varieties that fall into one or more of the following categories:¹⁰

- Officially listed by California or the federal government as Endangered, Threatened, or Rare;
- A candidate for state or federal listing as Endangered, Threatened, or Rare;
- Taxa which meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the *California Environmental Quality Act (CEQA) Guidelines*; table entries for these taxa may indicate “none” under listing status, but note that all CNPS List 1 and 2 and some List 3 plants may fall under Section 15380 of the *State CEQA Guidelines*;

¹⁰ California Department of Fish and Game, Natural Diversity Database. April 2010. Special Vascular Plants, Bryophytes, and Lichens List.

- A Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service Sensitive Species;
- Taxa listed in the California Native Plant Society's Inventory of Rare and Endangered Plants of California;
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation;
- Populations in California that may be peripheral to the major portion of a taxon's range but are threatened with extirpation in California; and
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats, etc.).

Special-status animals are taxa that fall into one or more of the following categories:¹¹

- Officially listed or proposed for listing under the state Endangered Species Act (CESA) or federal Endangered Species Acts (federal ESA);
- State or federal candidate for possible listing;
- Taxa that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the *State CEQA Guidelines*;
- Taxa considered by the Department to be a Species of Special Concern (SSC);
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring;
- Populations in California that may be on the periphery of a taxon's range, but are threatened with extirpation in California;
- Taxa closely associated with a habitat that is declining in California at an alarming rate (e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.); and
- Taxa designated as a special-status, sensitive, or declining species by other state or federal agencies, or non-governmental organizations (NGOs).

Special-status species appearing on the project site are illustrated on **Figure 4.6-3**.

¹¹ California Department of Fish and Game, Natural Diversity Database. July 2009. Special Animals List.

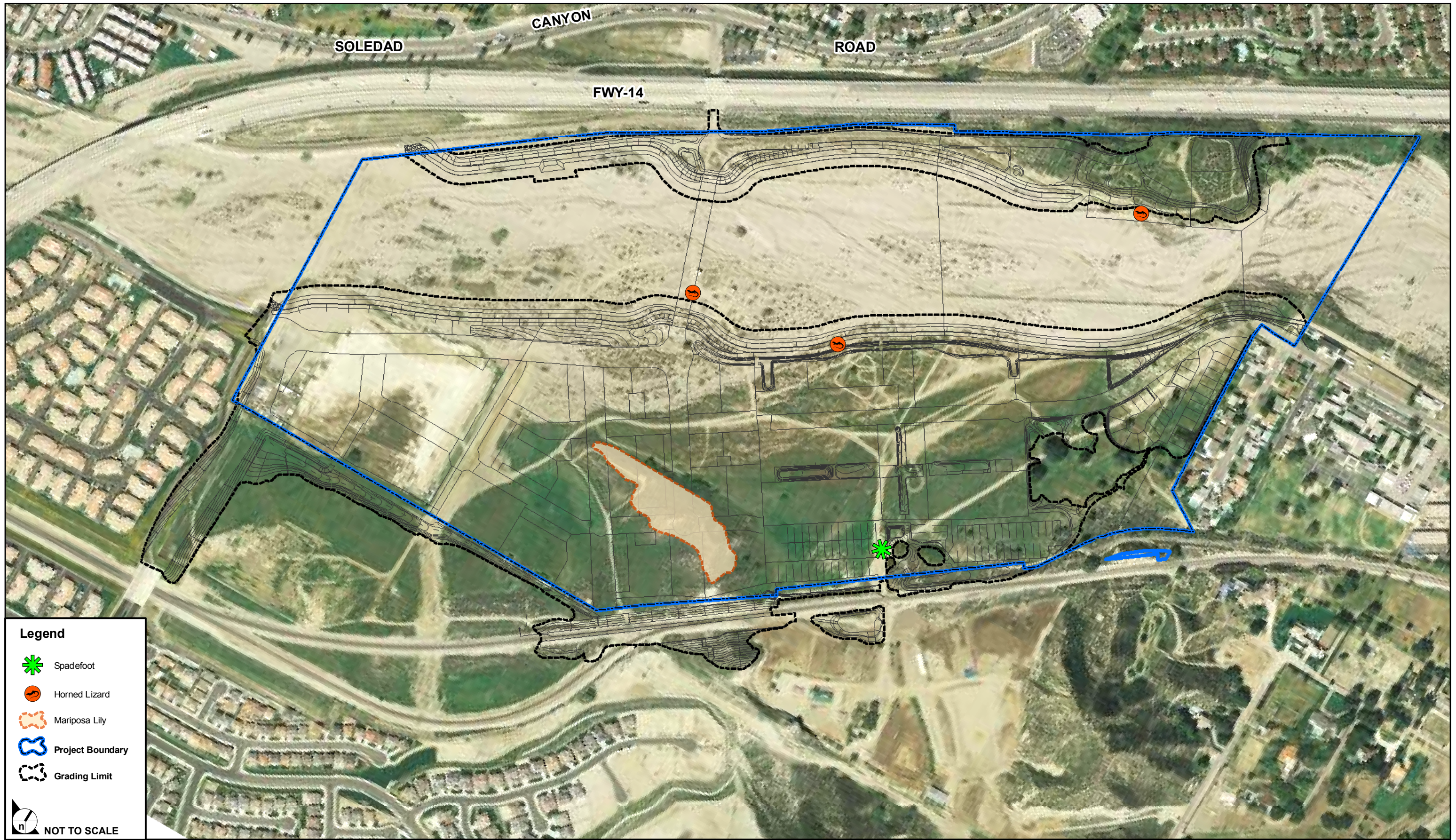
(1) Special-Status Plants

This section relies on the Special Vascular Plants, Bryophytes and Lichens list and the Endangered, Threatened and Rare Plants list, both produced by CDFG, and the Proposed and Candidate Species list produced by the Sacramento Fish and Wildlife Office for special-status species determinations.¹² Special-status plant species include those protected by CESA, federal ESA, and those listed on the CNPS Inventory of Rare and Endangered Plants.¹³

Impact Sciences and Forde Biological Consultants reviewed the CDFG California Natural Diversity Database and the CNPS Inventory of Rare and Endangered Plants by searching the U.S. Geological Service's 7.5-minute Agua Dulce, Green Valley, Mint Canyon, Newhall, Oat Mountain, San Fernando, Sleepy Valley, Sunland, and Warm Springs Mountain quadrangles, to identify special-status species known to occur or that may occur at or near the project site.¹⁴ Literature pertaining to habitat requirements of special-status plant species potentially present on or near the project site was also reviewed.

A search of the databases did not reveal collections or reports of special-status plant species on the project site;¹⁵ however, 17 species have been recorded as present within the region covered by the nine regional quadrangles. Undoubtedly, a number of detections are not reported on the CNDDDB or the CNPS Inventory of Rare and Endangered Plants and it is likely that populations of some special-status plant species have not yet been detected within a particular quadrangle or set of quadrangles. In light of this fact, Impact Sciences and Forde Biological Consultants considered a number of species known to occur in the region but not currently documented within the nine-quadrangle region. Based on geographic location, substrate, elevation, habitat type, and habitat quality, the majority of the special-status plant species records returned by the CNDDDB and the CNPS databases and others considered are not expected to occur or only have low potential to occur. **Table 4.6-2, Special-Status Plant Species Known From or With Potential to be Present in the Vista Canyon Project Area** summarizes species that are not expected or only have a low potential to occur. Special-status plant species present, those expected to occur, and those with moderate to high potential to occur, are discussed below.

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- ¹² CA. Fish & Game, Special Vascular Plants, Bryophytes and Lichens, April 2010.
CA. Fish & Game, Endangered, Threatened and Rare Plants, April 2010. Reports. Available at http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.
U.S. Fish & Wildlife Office, Proposed & Candidate Species, Threatened & Endangered Species System, June 2010. Available at http://ecos.fws.gov/tess_public/.
- ¹³ CA. Fish & Game Code §§ 3511, 4700, 5050, & 5515; CA. Fish & Game Code §§ 2050-2097; 16 U.S.C. §§ 1531-1544.
- ¹⁴ California Department of Fish & Game, Wildlife & Habitat Data Analysis Branch, California Natural Diversity Database, 2008.
California Native Plant Society, 2010, Inventory of Rare and Endangered Plants (v7-10b 4-10-10 at <http://www.cnps.org/inventory>).
- ¹⁵ The occurrence of western spadefoot on the project site is now documented in the CNDDDB (March, 2009).



SOURCE: Impact Sciences, Inc. – June 2010

FIGURE 4.6-3

Special-Status Species Locations

Peirson's morning-glory (*Calystegia peirsonii*); CNPS List 4.2 – Individuals of a taxon belonging to the genus *Calystegia* were detected by Impact Sciences biologists within California sagebrush-buckwheat habitat on the western hill in the southern portion of the project site in May 2008. These plants appeared to be intermediate between Peirson's morning glory and south coast morning glory (*C. macrostegia* ssp. *intermedia*) and were assigned to the species *C. peirsonii*, based on bract and leaf characteristics. Boyd regards Peirson's morning glory as being common within the Liebre Mountains,¹⁶ and *The Jepson Manual* indicates that Peirson's morning glory intergrades with south coast morning glory,¹⁷ which is known from the area although it is considered to be locally uncommon. Although the plants in question are intermediate in character between the special-status and common species, due to the potential for constraints to development arising from the sensitivity ranking of Peirson's morning glory, the population of *Calystegia* plants on site is presumed to be the special-status species, although it is acknowledged that this is a conservative presumption because the plants are neither clearly the special status species (*Calystegia peirsonii*) nor the common species (*C. macrostegia*).

Slender mariposa lily (*Calochortus clavatus* ssp. *gracilis*); CNPS List 1B.2 – Slender mariposa lily is a summer-deciduous herb that grows from a perennial bulb. Yellow flowers, club-shaped hairs on the petals, and a dark band above the nectary generally distinguish the subspecies. A population of at least 150 individuals of slender mariposa lily is present on the east and west slopes of a small hill in the southern section of the site.

Plummer's mariposa lily (*Calochortus plummerae*); CNPS List 1B.2 – Like slender mariposa lily, Plummer's mariposa lily is a summer-deciduous herb that grows from a perennial bulb. The California Natural Diversity Database includes 103 records, of which 37 are in Los Angeles County, and one is from the project region (Newhall). Habitat associations of the species are similar to slender mariposa lily, but the species was not detected on the project site in surveys conducted between 2006 and 2009. However, there is a high potential for occurrence on the project site.

¹⁶ Boyd, S. 1999. *Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California*. Rancho Santa Ana Botanic Garden Occasional Publications Number 5. Claremont, California.

¹⁷ Hickman, J.C. 1993. *The Jepson Manual, Higher Plants of California*. University of California Press, Berkeley, California.

Table 4.6-2
Special-Status Plant Species Known From or With Potential to be Present in the Vista Canyon Project Area

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
Dicots						
Braunton's milk-vetch <i>Astragalus brauntonii</i>	FE	–	1B.1	Substrates variously described as “recent burns or disturbed areas; in stiff gravelly clay soils overlying granite or limestone” (CNDDDB); “recent burns or disturbed areas, usually sandstone with carbonate layers” (CNPS); and “restricted to limestone outcroppings” (Fotheringham and Keeley) ¹⁸ . Chaparral, coastal scrub, valley and foothill grassland communities between 4 and 640 m msl.	Perennial herb January–August	None – carbonate substrates are not present on the project site.
Nevin's barberry <i>Berberis nevinii</i>	FE	SE	1B.1	Steep north-facing slopes and low-grade sandy washes in chaparral, cismontane woodland, and coastal and riparian scrub communities between 295 and 825 m msl. Plants in San Francisquito Canyon are introduced.	Perennial evergreen shrub March–June	None – although appropriate habitat is present, the project site is outside of the species natural range and this conspicuous perennial shrub would have been detectable if present.
Round-leaved filaree <i>California macrophylla</i>	–	–	1B.1	Clay soils in cismontane woodland, valley and foothill grassland communities between 15 and 1200 m msl.	Annual herb March–May	None – appropriate soils are not present on the project site.
Peirson's morning-glory <i>Calystegia peirsonii</i>	–	–	4.2	Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley, and foothill grassland communities between 30 and 1500 m msl.	Rhizomatous herb April–June	Presumed present – plants of intermediate characteristics between this and <i>C. macrostegia</i> ssp. <i>intermedia</i> were observed within scrub communities in the southern portion of the project site.

¹⁸ Fotheringham, C. J.; Keeley, Jon E. 1998. Ecology and distribution of Braunton's milkvetch (*Astragalus brauntonii*) and Lyon's pentachaeta (*Pentachaeta lyonii*). Unpublished report prepared for California Department of Fish and Game, Region 5.

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
Southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i> (A synonym of <i>Hemizonia parryi</i> ssp. <i>australis</i> in <i>The Jepson Manual</i>)	–	–	1B.1	Vernally mesic habitats in marshes and swamp margins, valley and foothill grassland, and vernal pool communities between 0 and 427 m msl. Often in disturbed sites near the coast; also in alkaline soils, sometimes with saltgrass (<i>Distichlis spicata</i>).	Annual herb May– November	None – appropriate habitat is present in mulefat scrub vegetation in the southern portion of the site; however, the site is outside the species known range.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	FC	SE	1B.1	Sandy soils in coastal scrub and valley and foothill grassland communities between 150 and 1220 m msl.	Annual herb April–July	Low – some appropriate habitat is present in scrub communities on site. However, the species was not observed during the course of surveys conducted in spring, 2006, 2007, 2008, and 2009.
White-bracted spineflower <i>Chorizanthe xanti</i> var. <i>leucotheca</i>	–	–	1B.2	Sandy or gravelly substrates in Mojave Desert scrub and pinyon juniper woodland communities between 300 and 1200 m msl.	Annual herb April–June	None – the site is likely to be outside of the species range; The Ritter Ranch population recorded with CNDDDB is not known to be documented by voucher and may be mistakenly identified ¹⁹ .
Santa Susana tarplant <i>Deinandra minthornii</i> [State-listed as <i>Hemizonia minthornii</i> ; see this name in <i>The Jepson Manual</i> .]	–	Rare	1B.2	Sandstone outcrops and crevices in chaparral and coastal scrub communities between 280 and 760 m msl.	Perennial deciduous shrub July– November	None – sandstone outcrops are not present, and the site is outside the species geographic range.

¹⁹ Boyd, Steve. Rancho Santa Ana Botanic Garden. Email communication, dated December 26, 2007.

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
Slender-horned spineflower <i>Dodecahema leptoceras</i>	FE	SE	1B.1	Sandy soils in flood-deposited terraces and washes in alluvial scrub communities between 200 and 760 m msl	Annual herb April–June	Low – the species is known from the Santa Clara River, upstream and of the project site and historically in Mint Canyon. Not observed during the course of 2006, 2007, 2008, and 2009 surveys, this species is not expected to occupy the project site.
San Gabriel bedstraw <i>Galium grande</i>	–	–	1B.2	Open chaparral and low, open oak forest; on rocky slopes between 425 and 1500 m msl. Probably under collected due to inaccessible habitats.	Perennial deciduous shrub January–July	None – appropriate habitat is not available and the project site is outside the species geographic range.
Los Angeles sunflower <i>Helianthus nuttallii</i> ssp. <i>parishii</i>	–	–	1A	Presumed extinct. Coastal, salt, and freshwater marshes and swamps between 5 and 1675 m msl. Historically known from Southern California; last seen in 1937.	Perennial rhizomatous herb August–October	None – appropriate habitat is not available on site.
Ross’s pitcher sage <i>Lepechinia rossii</i>	–	–	1B.2	Soils derived from fine-grained, reddish sedimentary rock in chaparral communities between 305 and 790 m msl.	Perennial shrub May–September	None – appropriate habitat is not available on the project site.
Davidson’s bushmallow <i>Malacothamnus davidsonii</i>	–	–	1B.2	Sandy washes within cismontane woodland, coastal scrub, riparian woodland, and chaparral between 180 and 855 m msl.	Perennial deciduous shrub June–January	None – the site is outside the species range.

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
Moran's navarretia <i>Navarretia fossalis</i>	FT	–	1B.1	Vernal pools, chenopod scrub, marshes, swamps, and playas on San Diego hardpan and San Diego claypan soils between 30 and 1300 m msl.	Annual herb April–June	None – marginal habitat may be available in seasonal pools on the project site; however, these are frequently disturbed by off-highway vehicle (OHV) use and generally lack vegetation. The species was not detected during the course of surveys conducted on site.
Short-joint beavertail <i>Opuntia basilaris</i> var. <i>brachyclada</i>	–	–	1B.2	Sandy soil or coarse granitic loam within chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon juniper woodland and riparian woodland communities between 425 and 1800 m msl.	Perennial stem succulent April–June	Low – an individual plant of intermediate characteristics between this variety and <i>O. basilaris</i> var. <i>basilaris</i> was detected in scrub vegetation in the southern portion of the site. This variety occurs at higher elevations than the project site and is thought not to be present in the Santa Clarita Valley.
Chaparral ragwort <i>Senecio aphanactis</i>	–	–	2.2	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub habitats between 15 and 800 m msl.	Annual herb January–April	Low – appropriate habitat is present associated with mulefat and saltgrass dominated habitats in the southern portion of the site. This species was not detected during the course of surveys conducted on the project site. The species has not been detected in the project vicinity since 1901.
Mason's neststraw <i>Stylocline masonii</i>	–	–	1B.1	Sandy habitats within chenopod scrub and pinyon juniper woodland communities between 100 and 1200 m msl.	Annual herb March–May	None – The population of <i>Stylocline</i> on site has been identified as <i>S. gnaphaloides</i> .

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
Greata's aster <i>Symphotrichum greatae</i> [Treated as <i>Aster greatae</i> in <i>The Jepson Manual</i> .]	–	–	1B.3	Mesic habitats in broadleaved upland forest, chaparral, cismontane woodland, riparian woodland and lower montane coniferous forest communities between 300 and 2010 m msl.	Perennial rhizomatous herb June–October	None – habitats on site are generally too xeric to support this species.
Monocots						
Mt. Pinos onion <i>Allium howellii</i> var. <i>clokeyi</i>	–	–	1B.3	Great Basin scrub, and pinyon and juniper woodland communities between 1300 and 1850 m msl.	Perennial bulbiferous herb April–June	None – The project site is outside the species range.
Slender mariposa lily <i>Calochortus clavatus</i> var. <i>gracilis</i>	–	–	1B.2	Shaded foothill canyons, often on grassy slopes within chaparral and coastal scrub communities between 360 and 1000 m msl.	Perennial bulbiferous herb March–June	Present – detected on site in scrub vegetation in the southern portion of the project site.
Plummer's mariposa lily <i>Calochortus plummerae</i>	–	–	1B.2	Rocky and sandy sites, usually of granitic or alluvial material in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest communities between 100 and 1700 m msl.	Perennial bulbiferous herb May–July	High – appropriate habitat is present but the species was not detected during the course of surveys conducted on site despite the noted presence of several other <i>Calochortus</i> taxa, which were blooming at the time.
California Orcutt grass <i>Orcuttia californica</i>	FE	SE	1B.1	Vernal pools between 15 and 660 m msl.	Annual herb April–August	None – marginal habitat may be available in seasonal pools on the project site; however, these are frequently disturbed by OHV use and generally lack vegetation. The species was not detected during the course of surveys conducted on site.

Common name Scientific name	Federal status	State status	CNPS list	Habitat requirements	Growth form Blooming period	Potential to be present on site
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Status abbreviations

M msl = meters above mean sea level

Federal

FE: Federally listed as Endangered

FT: Federally listed as Threatened

FC: Federal candidate species

State

SE: State-listed as Endangered

CNPS lists

1A: Plants presumed extinct in California

1B: Plants rare, threatened, or endangered in California and elsewhere

2: Plants rare, threatened, or endangered in California, but more common elsewhere

4: Plants of limited distribution – a watch list

CNPS threat rank extensions

0.1: Seriously threatened in California

0.2: Fairly threatened in California

0.3: Not very threatened in California

(2) Special-Status Wildlife

Impact Sciences and Forde Biological Consultants reviewed the CNDDDB by querying the nine-quadrangle region containing the project site for wildlife species known to occur on or near the property and to identify those that may occur. Literature was also reviewed pertaining to habitat requirements of special-status wildlife species potentially occurring on or near the property and detailed regional bird accounts prepared by CEM.²⁰ The database revealed that there are no records of special-status wildlife species occurring on the property itself; however, 26 special-status wildlife species have been recorded within the region, inclusive of the nine USGS quadrangles. Undoubtedly, a number of detections have not been reported to the CNDDDB and others may occur, but have not yet been detected, within a particular area identified within a quadrangle or set of quadrangles. In consideration of this fact, an additional 14 special-status species known to occur in the region are included as potentially occurring. Based on geographic location, habitat type, and habitat quality, and lack of water, the majority of the special-status wildlife species returned by the database are not expected to occur, have a low potential to occur, or are not expected to occur during the season of concern (primarily the nesting season). These species are summarized in **Table 4.6-3, Special-Status Animal Species Known From or With Potential to be Present in the Vista Canyon Area** (later in this section). Special-status wildlife species that are present, expected to occur, have a moderate to high potential to occur, have been observed at the property but are not expected to occur during the season of concern, and those for which species-specific surveys were conducted, are discussed in detail below.

(a) Amphibians

Arroyo toad (*Anaxyrus californicus*); Federal ESA Endangered, California Species of Special Concern – Arroyo toad is not expected to occur; however, Forde Biological Consultants was unable to correspond with USFWS personnel before the onset of the protocol survey season in 2006. As such, focused surveys were initiated pending consultation with the USFWS. Surveys commenced on March 24, 2006 and no arroyo toads were detected. Several days after the initial survey, USFWS agreed that no further surveys were warranted since the habitat was not considered suitable and no arroyo toads had been identified in the immediate vicinity of the property (*Arroyo Toad Survey, 2007*).²¹

Western spadefoot (*Spea hammondi*); Bureau of Land Management Sensitive, California Species of Special Concern – Western spadefoot ranges throughout the Central Valley and adjacent foothills, and

²⁰ Forde Biological Consultants. August 2008. Biological Assessment, Vista Canyon Ranch, Los Angeles County, California.

²¹ Forde Biological Consultants. August 2008. Biological Assessment, Vista Canyon Ranch, Los Angeles County, California.

through the Coast Ranges and coastal plain from Point Conception south to the Mexican border. Elevations of occurrence extend from near sea level to 1363 m (4460 ft) in the southern Sierra foothills. It relies on temporary rain pools in a variety of vegetation types for its reproductive habitat. It spends most of the year in burrows up to 0.9 m (36 in) underground. Individuals have been reported to use mammal burrows. Surface movement by adults is primarily associated with rains or during nights of high humidity and they rarely stray far from their natal pools. Ponds must lack predators and persist for at least three weeks for successful reproduction. Recently metamorphosed juveniles seek refuge in drying mud cracks, under boards and other surface objects in the immediate vicinities of breeding ponds for up to several days after transformation.

No specific survey guidelines and protocols are developed, therefore, the survey methodology used by Forde Biological Consultants and Compliance Biology was based on previous experience and knowledge of the species' life history. Day and night surveys for western spadefoot were conducted on March 24 and March 29, 2006. Eight puddles were investigated in and adjacent to the roads in the central portion of the property south of the river. On March 29, 2006, an adult was observed immediately adjacent to a large puddle located in the middle of a dirt road. Subsequently, Ron Francis Jr. or Forde Biological Consultants visited the property approximately every 10 days, between December 20, 2007 and March 6, 2008, to determine the number of puddles used by western spadefoot toad, and to determine presence or absence of any other special-status semi-aquatic species, including fairy shrimp. On January 29, 2008, egg clusters and tadpoles of western spadefoot were observed in the same puddle that the adult was observed two years previous. Biologists did not observe egg clusters or tadpoles in any other puddle. No other special-status semi-aquatic species, including fairy shrimp, were observed at any time.²²

(b) Reptiles

Silvery legless lizard (*Amniella pulchra pulchra*); USDA Forest Service Sensitive, California Species of Special Concern – Silvery legless lizard is common in suitable habitats in the Coast Ranges from the vicinity of Antioch, Contra Costa County, south to the Mexican border.²³ They occur sparsely throughout the rest of their range, which includes the San Joaquin Valley from San Joaquin County to Kern County, the west slope of the southern Sierra, the Tehachapi Mountains west of the desert, and the mountains and coastal plain of Southern California. An isolated desert population is known to occur at Whitewater Canyon in Riverside County. Elevation ranges from near sea level to about 1800 m (6000 ft) in the Sierra

²² Fairy shrimp are known to occur in tire ruts and road puddles; however, such occurrences are typically associated with nearby vernal pools. There are no vernal pools on the property and none are known to occur nearby.

²³ Jennings, M. R. and M. P. Hayes, 1994. Amphibian and Reptile Species of Special Concern in California, CA. Fish & Game, Rancho Cordova.

Nevada Mountains. They occur in several communities, and require substrates of sandy or loose organic soils or plenty of leaf litter.

No specific survey guidelines and protocols are developed; therefore, survey methodology was based on previous experience and life history of the species. On January 7, 2006 and August 1, 2006, Forde Biological Consultants conducted a survey using a grass rake with flexible tines to rake through the leaf litter soil interface under the oak trees. Other upland habitats and the damp areas within the Santa Clara River were not surveyed due to the potential for habitat destruction. No silvery legless lizard individuals were observed within the leaf litter soil interface under the oak trees. Due to the behavior of this species, it is typically very difficult to detect; therefore, surveys may be unreliable for determining absence. Nevertheless, results indicate that if present, they are likely low in number.

Coast horned lizard (*Phrynosoma blainvillii*); Bureau of Land Management Sensitive, USDA Forest Service Sensitive, California Species of Special Concern – Coast horned lizard is uncommon to common in suitable habitats within alluvial scrub, valley foothill hardwood, conifer, pine-cypress, juniper, and annual grassland communities. It is known from the Sierra Nevada foothills from Butte County to Kern County and throughout the central and Southern California coastal plain and mountains. Elevation range of the species extends up to 4000 ft (~1200 m) in the Sierra Nevada foothills and up to 6000 ft (~1800 m) in the mountains of Southern California. The distribution of two previously recognized subspecies, *P. c. blainvillii* and *P. c. frontale*, overlap the property.

Forde Biological Consultants conducted surveys for this species within and south of the Santa Clara River on July 14 and July 17, 2006 and north of the Santa Clara River with Compliance Biology on August 1 and August 8, 2006. They detected a coast horned lizard north of the Santa Clarita River during the survey on August 1, 2006 near the base of Mitchell Hill. Dr. Edith Read also observed a coast horned lizard on April 17, 2008 within the River Corridor toward the west side of the property and Forde Biological Consultants observed an individual near the same location on April 20, 2008.

(c) Birds

Burrowing owl (*Athene cunicularia*); USDA Forest Service Bird of Conservation Concern, Bureau of Land Management Sensitive, California Species of Special Concern – Burrow sites of burrowing owl are considered sensitive by CDFG. Populations are generally distributed as scattered colonies and isolated pairs throughout the interior western United States reaching the coast locally from central California to the Mexican border.²⁴ Burrowing owl is migratory in the northern part of its range, and in the southwestern states, particularly California. In California, this owl may also be resident, breeding,

²⁴ American Ornithologists' Union. 1998, Checklist of North American Birds. Seventh Edition. Washington, D.C. 829 pp. Sibley, D.A. 2000. National Audubon Society The Sibley Guide to Birds. Chanticleer Press, Inc., New York.

and wintering in the same areas, often at the same burrows, which are generally created by the California ground squirrel. However, they may also use those created by large carnivores including coyote and can excavate their own burrows in soft earth. They can also use structures such as small culverts, pipes, and drains.²⁵ These burrows serve as both roosting and nesting sites. In California, they typically nest from February into December, with peak nesting from March to August. They take a wide variety of prey items including small mammals, arthropods, amphibians, reptiles and birds.

The burrowing owl is probably a rare year-round resident in the Santa Clarita area, where it appears to be confined to steep, eroding banks and other sandy areas along river channels. On December 30, 2007, Daniel S. Cooper observed an individual at Castaic Creek, south of Commerce Center Drive.²⁶ J. O'Rourke reported the occurrence of an individual apparently wintering at Bouquet Canyon near Seco Drive and Central Park in Saugus in early 2007.²⁷ On March 1, 2006, Forde Biological Consultants' David Crawford and Ron Francis Jr. observed an individual immediately north of Copper Hill Road near San Francisquito Creek.²⁸ Another individual was observed at a burrow site along the Santa Clara River east of the Soledad Canyon Road crossing on February 9, 2005.²⁹ Western burrowing owl was not detected on the property during general surveys conducted March to July 2008 or during winter and nesting season surveys conducted during July and August, 2006; December, 2007; January, February and March, 2008; and February and March 2009. Nevertheless, there is potential for this species to utilize the site prior to development or subsequent to certain types of development, when appropriate habitat attributes (e.g., cavities or burrows of appropriate size, low-growing vegetation, or barren ground) continue to be manifest. Nesting habitat is considered to be absent from the project site.³⁰

Yellow warbler (*Dendroica petechia brewsteri*); California Species of Special Concern – Yellow warbler is considered sensitive during the breeding season. In California, they are locally common summer residents in the northern third of the state and locally uncommon to fairly common in the south. In California, they nest almost exclusively in mature lowland and foothill riparian woodlands dominated by large cottonwoods, alders, willows, or other large trees and shrubs.³¹

²⁵ Forde Biological Consultants. August 2008. Biological Assessment, Vista Canyon Ranch, Los Angeles County, California.

²⁶ Forde Biological Consultants. August 2008. Biological Assessment, Vista Canyon Ranch, Los Angeles County, California.

²⁷ O'Rourke, J. Burrowing Owl Spotted in Area. Los Angeles Daily News. Feb. 9, 2007.

²⁸ Forde Biological Consultants. August 2008. Biological Assessment, Vista Canyon Ranch, Los Angeles County, California.

²⁹ Record(s) in California Natural Diversity Database.

³⁰ Bloom, P.H. and C. A. Niemela,. 2009. Report on Winter Surveys of Special-Status Bird Species on Vista Canyon Property, Los Angeles County, California.

³¹ Garrett, K. and J. Dunn, 1981. *Birds of Southern California: Status and Distribution*. Audubon Society. Los Angeles, CA.

In the spring and early summer of 2007, 98 yellow warbler territories were detected along the Santa Clara River and its adjacent floodplains from Bouquet Canyon Road Bridge downstream to the County line (~13-miles),³² west of the project site. All but six territories were west of I-5. Additional territories are present upstream of the VCR property, along Soledad Canyon. Based on these results, the Santa Clara River may support the largest population of yellow warblers in Los Angeles County. Forde Biological Consultants observed a yellow warbler at the VCR property on May 14, 2006, in the cottonwood trees within the Santa Clara River. However, the property lacks suitable nesting habitat, and mid-May is their peak migration period through Southern California.³³ No territorial males or any other sign indicative of nesting or attempting to do so has been observed at the property, and the individual observed at the property is presumed to have been a transient. No breeding habitat exists on the project site.³⁴

White-tailed kite (*Elanus leucurus*); CDFG Fully Protected – White-tailed kite is widespread in the neotropics; however, its U.S. range is limited to western Oregon, central and southwestern California, and the Gulf Coast.³⁵ Because white-tailed kite numbers vary tremendously from year to year, they may be common in areas slightly marginal to their core distribution during good years, with several pairs nesting and wintering, but then may become scarce for several years, contracting back to their core range. They forage for rodents in grassland and wetland vegetation. Dense groves or clumps of trees adjacent to grassland are preferred for nesting. There appears to be little preference given to selection of tree species for nesting³⁶. In the Santa Clarita Valley, white-tailed kites typically concentrate nesting west of I-5, in the natural areas of the Santa Clara River and surrounding uplands and along San Francisquito Canyon, but during exceptional years, pairs nest more widely³⁷.

In 2005, Forde Biological Consultants, David Crawford, and Ron Francis Jr. observed a white-tailed kite nest on the Santa Clara River east of I-5 about 1.5 miles upstream of Bouquet Canyon Road Bridge, and observed a pair copulating near the same location between February 14 and March 2, 2006. When Forde Biological Consultants and Ron Francis Jr. conducted surveys in 2007 and early 2008, they did not

³² Bloom, P. and C. Niemela, 2007. Results of Annual Riparian Bird Surveys on the Santa Clara River Portion of Newhall Land and Farming Company Property.

³³ Garrett, K. and J. Dunn, 1981. *Birds of Southern California: Status and Distribution*. Los Angeles Audubon Society. Los Angeles, CA.

³⁴ Bloom, P.H. and C. A. Niemela, 2009. Report on Winter Surveys of Special-Status Bird Species on Vista Canyon Property, Los Angeles County, California.

³⁵ American Ornithologists' Union, 1998, Checklist of North American Birds, Seventh Edition, Washington, D.C. 829 pp.

Sibley, D. A. 2000. National Audubon Society The Sibley Guide to Birds. Chanticleer Press Incorporated, New York.

³⁶ Gallagher, S. 1997. Atlas of breeding birds, Orange County, California, Sea and Sage Audubon Press, Irvine, CA.

³⁷ Bloom, P. and C. Niemela, 2007. Results of Annual Riparian Bird Surveys on the Santa Clara River Portion of Newhall Land and Farming Company Property.

observe any nests along the Santa Clara River between the I-5 and the proposed Golden Valley Connector. On May 18, 2007, Ian Swift observed two white-tailed kite nests along the Santa Clara River approximately 1 mile and 1.5 miles east of the project site. Although white-tailed kites have not been detected at the property, they forage widely within their range, especially in winter, and in this region focus their activities along the Santa Clara River, its tributaries, and the grassy, scrub- and savannah-covered hills at lower elevations around the valley. For this reason, white-tailed kites are expected to occupy the property occasionally, particularly during winter when individuals are widespread. The fact that in 2007, a pair nested in a large coast live oak, amid a weedy field just east of the project site, suggests nesting potential, at least during irruption years; however, no nests were observed during surveys.

Loggerhead shrike (*Lanius ludovicianus*); US Fish and Wildlife Service Bird of Conservation Concern, California Species of Special Concern (nesting) – In California, the loggerhead shrike occurs widely but locally, in sparsely vegetated portions of the lowlands, including the Central Valley and deserts, as well as the northeastern plateau. Since the late 1980s, year-round populations west of the deserts in Southern California have been reduced to the point where they no longer breed over most of this region.³⁸ In coastal Southern California, the habitat requirements of the shrike are generally simple, described as “a scraggly open field—a couple acres will do—with an occasional bush or fencepost to use as a lookout perch.”³⁹ They seem to prefer vegetation that has been somewhat disturbed, either naturally by flooding or fire, or by humans, provided adequate perches are present. Birds typically select an isolated spiny shrub for a nest.⁴⁰

In Los Angeles County, loggerhead shrikes were considered an “abundant resident of the lowlands and mesas [lower San Gabriel Mountain foothills].” However, fewer than three pairs are believed to reside on the coastal slope today.⁴¹ Therefore, the Santa Clara River valley is probably critical to the survival of the loggerhead shrike in Los Angeles County west of the deserts, though the species is scarce and probably declining even here. The Los Angeles Breeding Bird Atlas found shrikes on five of 11 atlas blocks in the eastern Santa Clarita area in the 1990s, including one close to the property on May 23, 1999, near the Santa Clara River and Sand Canyon Road. Forde Biological Consultants, David Crawford, and Ron Francis Jr. observed a loggerhead shrike at the Wagoner property further to the east in Bee Canyon, and two individuals were detected on December 27, 2006 during the Santa Clara River Christmas Bird Count in

³⁸ Garrett, K.L. and McCaskie, G., 2004. State of the region: Southern Pacific Coast. *North American Birds* 58:600-604.

³⁹ Summarized by Gallagher (1997) for Orange County birds during the 1990s.

⁴⁰ Unitt, P. 2004. San Diego County Bird Atlas. *Proceedings of the San Diego Society of Natural History* #39.

⁴¹ Grinnell, J. 1998. *Birds of the Pacific Slope of Los Angeles County*. Pasadena Academy of Sciences, California; per K. Garrett, in Unitt 2004.

the east sub-region, which includes the project site (D.S. Cooper, unpublished data). All of these individuals were observed in weedy fields along the Santa Clara River and its tributaries. Although the loggerhead shrike has not been detected at the property, including wintering bird surveys in 2009, suitable habitat is present.

Summer tanager (*Piranga rubra*); California Species of Special Concern (nesting) – The summer tanager is a highly migratory species which breeds in the eastern and southwestern United States and winters in Mexico, Central America, and South America.⁴² The western populations occur in riparian woodlands dominated by large willows and cottonwoods mainly at lower elevations.⁴³ In California, it occurs in small numbers in the Colorado River Valley and as widely separated populations in Southern California desert oases and riparian corridors, with the largest populations near Weldon on the south fork of the Kern River and along the Mojave River near Victorville.⁴⁴ Daniel S. Cooper has observed a small breeding group of summer tanagers along Soledad Canyon (fewer than five pairs present each year), and another group is along Big Rock Creek in the southern Antelope Valley to the east.⁴⁵ These are the only two known nesting locales for this species in Los Angeles County. The total population of this species in California is likely less than 100 pairs.

Forde Biological Consultants observed an adult male on the project site on June 14, 2006. The individual may have been a late-migrating individual or possibly a failed post-breeding bird from the Soledad Canyon population. The limited riparian vegetation at the site and in the surrounding residential areas appears unlikely to fulfill the reproductive requirements of this species. While it appears that the property is within the current breeding range of this species, it lacks suitable nesting habitat.

Coastal California gnatcatcher (*Polioptila californica californica*); Federal ESA Threatened, California Species of Special Concern, USBC, AWL, ABC – The California gnatcatcher is a federally threatened species and is recognized as a Species of Special Concern by the CDFG. It is a resident of scrub dominated plant communities from southern Ventura County south and eastward through Los Angeles, Orange,

⁴² American Ornithologists' Union, 1998. Checklist of North American Birds. Seventh Edition. Washington, D.C. 829 pp.

Sibley, D.A. 2000. *National Audubon Society: The Sibley Guide to Birds*. Chanticleer Press, Inc., New York.

⁴³ Rosenberg et al. 1982, 1991; cited by Robinson, W.D. 1996. Summer Tanager. The Birds of North America Online (A. Poole, Ed.) Ithaca: Cornell Laboratory of Ornithology; Retrieved from The Birds of North America Online database. Available at <http://bna.birds.cornell.edu>.

⁴⁴ Unitt, P., 2008. Summer Tanager (*Piranga rubra*). In: California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. (W.D. Shuford and T. Gardali, eds.) Studies in Western Birds 1. Western Field Ornithologists, Camarillo, California, and CA. Dept. of Fish and Game, Sacramento.

⁴⁵ Los Angeles County Breeding Bird Atlas, K.L. Garrett, LACM, unpublished data.

Riverside, San Bernardino, and San Diego Counties, California, into Baja California, Mexico. It is strongly associated with sage scrub in its various successional stages. Plant structure in gnatcatcher territories is often described as low growing with moderate gaps in the shrub canopy. It generally avoids dense or high stands of sage scrub habitat and steep slopes.

Due to existing disturbance and the limited extent of suitable habitat on the project site this species is not expected to occur. However, the USFWS typically requires focused surveys in even the most marginal of habitats within the project region. Therefore, Forde Biological Consultants considered it prudent to conduct surveys using the USFWS protocol referenced above. Compliance Biology conducted surveys on April 28, May 12, May 27, June 3, June 18, and June 25, 2006 under the authority of Endangered Species Recovery Permit TE- 821229-5. Compliance Biology did not observe or detect California gnatcatchers during the protocol survey or during any other surveys conducted at the property. During the course of the surveys, the project applicant purchased the Mitchell Hill property, which expanded the project boundary. Mitchell Hill is dominated by chamise chaparral. Due to the proximity of Mitchell Hill to the Antelope Valley Freeway and its isolation from other suitable habitat, and its distance from known populations, Compliance Biology concluded that protocol surveys for California gnatcatcher on Mitchell Hill were not warranted.

(d) Mammals

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); California Species of Special Concern

– San Diego black-tailed jackrabbit utilizes herbaceous and desert shrub areas and open, early stages of forest and chaparral habitats. It prefers grasses and forbs but it will eat almost any available vegetation. The black-tailed jackrabbit is the most common hare in California. However, this particular subspecies is considered declining in the region as a result of habitat loss. Several of the biological surveys documented the presence of scat that was attributable to San Diego black-tailed jackrabbit. On May 12, 2008, Forde Biological Consultants observed a single San Diego black-tailed jackrabbit on the property. The fact that biologists only observed one San Diego black-tailed jackrabbit between December 2005 and July 2008 indicates that numbers on the property are low.

**Table 4.6-3
Special-Status Animal Species Known From or With Potential to be Present in the Vista Canyon Area**

Common name <i>Scientific name</i>	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Insects					
Monarch butterfly (wintering sites) <i>Danaus plexippus</i>	–	–	Special Animals List	Roosts located in wind-protected tree groves (eucalyptus, Monterey cypress), with nectar and water sources nearby. Winter Roost sites extend along the coast from northern Mendocino County to Baja California, Mexico.	None – the nearest recorded roosting site is in the San Fernando Valley, several miles southwest of the project site. Monarch wintering sites are used repeatedly from generation to generation, and the lack of historical use by monarchs of sites within the Santa Clarita Valley makes it highly unlikely that future use will occur.
Fish					
Santa Ana sucker <i>Catostomus santaanae</i>	FT, FSS	CSC	–	Habitat generalist, but prefer sand/rubble/boulder bottoms, cool, clear water and algae; native range is restricted to basins of the Los Angeles, San Gabriel and Santa Ana Rivers.	Presumed infrequently present – this species is known from the Santa Clara River and may be present on site any time water is flowing in the river. However, because there is no permanent water flow in this stretch of the river, the occurrence would be only after a large storm event.
Unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE, FSS	SE, DFG	–	Cool, clear water with abundant vegetation in weedy pools, backwaters and among emergent vegetation at the stream edge in small Southern California streams.	Presumed infrequently present – this species is known from the Santa Clara River and may be present on site any time water is flowing in the river. However, because there is no permanent water flow in this stretch of the river, the occurrence would be only after a large storm event.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Fish (continued)					
Arroyo chub <i>Gila orcuttii</i>	FSS	CSC	–	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates. Native populations are restricted to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita Rivers, and to Malibu and San Juan Creeks.	Presumed infrequently present – this species is known from the Santa Clara River and may be present on site any time water is flowing in the river. However, because there is no permanent water flow in this stretch of the river, the occurrence would be only after a large storm event.
Santa Ana speckled dace <i>Rhinichthys osculus</i> ssp. 3	FSS	CSC	–	Requires permanent flowing streams with summer water temperatures of 17 to 20 degrees C. Usually inhabits shallow cobble and gravel riffles. Occurs in the headwaters of the Santa Ana and San Gabriel Rivers.	Presumed infrequently present – this species is known from the Santa Clara River and may be present on site any time water is flowing in the river. However, because there is no permanent water flow in this stretch of the river, the occurrence would be only after a large storm event.
Amphibians					
Arroyo toad <i>Anaxyrus californicus</i>	FE	CSC	–	Rivers, washes or intermittent streams with sandy banks, willows, cottonwoods and sycamores within valley-foothill, desert riparian and desert wash communities in semi-arid regions; loose gravelly areas of streams in drier parts of range.	None – the species has been recorded both upstream and downstream of the project site; there is a low probability of the species migrating through the site due to lack of sufficient water flow in the Santa Clara River. Habitats on the project site are not considered suitable for breeding, and the USFWS has indicated that focused surveys on the project site are not required for this species.
California red-legged frog <i>Rana draytonii</i>	FT	CSC	–	Requires 11 to 20 weeks of permanent water for larval development; must have access to estivation habitat. Occurs in lowlands and foothills in or near permanent sources of deep water with dense shrubby or emergent riparian vegetation.	None – on-site habitats do not retain water long enough for the life-history requirements of this species.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Amphibians (continued)					
Sierra Madre yellow-legged frog <i>Rana muscosa</i>	FE, FSS	CSC	–	Always encountered within a few ft. of water. Tadpoles may require 2 to 4 years to complete their aquatic development. Federal listing refers to populations in the San Gabriel, San Jacinto, and San Bernardino Mountains only.	None – the site lacks any permanent water features and is below the known elevational range of the species.
Western spadefoot <i>Spea hammondi</i>	BLMS	CSC	–	Vernal pools and other areas of seasonally ponded water, primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Present – this species has been observed on site by Forde Biological Consultants, Compliance Biology, and Impact Sciences biologists.
Reptiles					
Southwestern pond turtle <i>Actinemys marmorata pallida</i>	BLMS, FSS	CSC	–	Requires basking sites such as partially submerged logs, vegetation mats, or open mud banks and needs suitable nesting sites in permanent or near permanent bodies of water in many habitat types below 2,000 m msl.	Low – permanent or near permanent water features are not present on the site.
Silvery legless lizard <i>Anniella pulchra pulchra</i>	FSS	CSC	–	Leaf litter associated with sandy or loose loamy soil of high moisture content under sparse vegetation or oaks.	Moderate to High – habitat is present within oak woodland and riparian communities on site though it was not detected during on-site surveys.
Coastal western whiptail <i>Aspidoscelis tigris stejnegeri</i>	–	–	Special Animals List	Various habitats in firm, sandy or rocky soils within sparse vegetation, open areas, woodlands and riparian communities of deserts and semi-arid areas	Moderate – suitable habitat is present throughout the site though it has not been detected during on-site surveys.
Rosy boa <i>Charina trivirgata</i>	BLMS, FSS	–	–	Habitats with a mix of brushy cover and rocky soil such as coastal canyons and hillsides, desert canyons, washes and mountains in desert and chaparral from the coast to the Mojave and Colorado Deserts	Moderate – suitable habitat is present throughout the site though it has not been detected during on-site surveys.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Reptiles (continued)					
San Diego banded gecko <i>Coleonyx variegatus abbotti</i>	–	–	Special Animals List	Granite or rocky outcrops in coastal scrub and chaparral habitats	Moderate – suitable habitat is present in rocky areas along the northern bluffs of the Santa Clara River, near the old graveyard location, though it has not been detected during on-site surveys.
San Bernardino ringneck snake <i>Diadophis punctatus modestus</i>	FSS	–	–	Surface litter or herbaceous vegetation in open, relatively rocky areas, often in somewhat moist areas near intermittent streams.	Moderate – suitable habitat is present throughout the site, especially within and adjacent to oak-dominated and mesic habitats, though it has not been detected during on-site surveys.
Coast horned lizard <i>Phrynosoma blainvillii</i>	BLMS, FSS	CSC	–	Prefers friable, rocky, or shallow sandy soils in scrub and chaparral habitats in arid and semi-arid regions. Requires the presence of native ants for prey.	Present – observed by Forde Biological Consultants in August 2006. Suitable habitat and prey is present throughout the site.
Coast patch-nosed snake <i>Salvadora hexalepis virgulata</i>	–	CSC	–	A low shrub structure of minimum density. Presumed to take refuge and perhaps overwinter in burrows or woodrat nests. Preys on whiptail lizards (<i>Aspidoscelis</i>).	Moderate – suitable habitat is present in scrub communities throughout the site, and prey is highly likely to occur as well, though it has not been detected during on-site surveys.
Two-striped garter snake <i>Thamnophis hammondi</i>	BLMS, FSS	CSC	–	Highly aquatic species found in or near permanent fresh water, often along streams with rocky beds and riparian growth within coastal regions from the vicinity of Salinas to northwest Baja California below about 2,300 m msl	None – riparian communities on site lack permanent water needed by this species.

Common name <i>Scientific name</i>	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds					
Cooper's hawk (nesting) <i>Accipiter cooperi</i>	–	DFG:WL	–	Nests in open forests, groves, or trees along rivers, or low scrub of treeless areas. The wooded area is often near the edge of a field or water opening.	Present – observed during the course of wintering surveys conducted on site; suitable nesting and foraging habitat is present in and around woodland communities on site.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	–	DFG:WL	–	Frequents relatively steep, often rocky hillsides with grass and forb patches. Resident in Southern California coastal sage scrub and mixed chaparral.	Present – observed by Forde Biological Consultants during spring 2009. ⁴⁶ Suitable habitat is present in scrub communities throughout the site.
Grasshopper sparrow (nesting) <i>Anmodramus savannarum</i>	–	CSC	–	Dry, dense grasslands, especially those with grasses, tall forbs, and scattered shrubs for singing perches. In Southern California, occurs mainly on hillsides and mesas in coastal districts, but has bred up to 1,500 m (5,000 ft) in the San Jacinto Mountains. Also known from Pete's Valley, Lassen County, and Shasta Valley, Siskiyou County. Secretive in winter; may occur more regularly than indicated by infrequent records, chiefly in coastal Southern California.	Low – suitable, but marginal, habitat is present in grassland, ruderal and sparse scrub communities on site however not detected in any of the surveys conducted on site.
Bell's sage sparrow (nesting) <i>Amphispiza belli belli</i>	BCC	DFG:WL	–	Nests on the ground beneath shrubs or in shrubs 6 to 18 inches above the ground within chaparral communities dominated by fairly dense stands of chamise or in coastal scrub in southern part of the range.	Low – marginally suitable habitat is present in chamise chaparral and scrub communities on site.
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	BCC, BLMS	CSC, DFG, CDF	–	Nests and winters in cliff walls, large trees, and rolling foothill and mountain areas supporting sage-juniper and desert vegetation.	None – not enough foraging or nesting habitat occurs on site.

⁴⁶ Email communication from Andrew McGinn Forde to Joe Decruyenaere, dated March 30, 2009.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
Great egret (rookery) <i>Ardea alba</i>	–	CDF	–	Colonial nester in large trees. Rookery sites located near marshes, tide flats, irrigated pastures, and margins of rivers and lakes.	None – the site lacks habitats that would support a rookery or nesting. However, an individual of this species was recorded by Compliance Biology as foraging on the site in 2006.
Great blue heron (rookery) <i>Ardea herodias</i>	–	CDF	–	Colonial nester in tall trees, Cliffs, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	None – the site lacks habitats that would support a rookery, but individual great blue herons have been observed foraging on site while surface water is present.
Long-eared owl (nesting) <i>Asio otus</i>	–	CSC	–	Riparian bottomlands grown to tall willows and cottonwoods, also belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows, hawks or magpies for breeding.	None – the long-eared owl is a relatively sensitive and intolerant of human disturbance and the species is not known to nest within 0.25 mile of residential areas in Southern California.
Burrowing owl (burrow sites) <i>Athene cunicularia</i>	BCC, BLMS	CSC	–	Open, dry grassland and desert habitats throughout California, or scrublands characterized by low-growing, widely spaced vegetation. Dependant upon burrowing mammals, especially California ground squirrel.	None no nesting habitat on-site, but might occur while migrating or while wintering.
Oak titmouse (nesting) <i>Baeolophus inornatus</i>	–	–	ABC, AWL, USBC	Primarily associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California, from the Mexican border to Humboldt County.	Present – observed during the course of surveys conducted on site.
Ferruginous hawk (wintering) <i>Buteo regalis</i>	BCC, BLMS	DFG:WL	AWL	Open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon/juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph cycles.	None – ferruginous hawks migrate through and over winter in the site region, but the species was not observed during winter surveys

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	FSS, BCC	ST	USBC, AWL, ABC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas and agricultural or ranch fields. Requires adjacent suitable foraging areas such as grasslands or agricultural fields supporting rodent populations.	Low – Swainson's hawks are known to migrate through interior Southern California in fall and spring, and may forage on or over the project site. Nesting is not known from the Santa Clarita Valley, and is not expected to occur on site.
Costa's hummingbird (nesting) <i>Calypte costae</i>	–	–	USBC, AWL, ABC	Various herbaceous and woody plants provide flower nectar; also takes small insects and spiders. In winter, exotic shrubs such as bottlebrush may be important. Mostly shrubs, but also trees, provide cover. Nests are placed in a wide variety of trees, cacti, shrubs, woody forbs, and sometimes vines, sometimes located close to water sources, but more often well away from water.	High – suitable nesting and foraging habitat is present throughout the site. The species was observed during winter bird surveys but nesting on the project site has not been observed.
Lawrence's goldfinch (nesting) <i>Carduelis lawrencei</i>	BCC	–	USBC, AWL, ABC	Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water. Nearby herbaceous habitats are used for feeding.	Present – observed during the course of surveys conducted on site; suitable habitat is present associated with oak communities on site.
Lark sparrow (nesting) <i>Chondestes grammacus</i>	–	–	Special Animals List	A common to fairly common resident in lowlands and foothills throughout much of California. Nest usually built on ground in herbage shaded by a tussock or small shrub.	High – Suitable nesting habitat is present on the project site. A pair of lark sparrows was observed once during the course of coastal California gnatcatcher surveys in 2006. Based on the unrepeated observation, this pair was presumed not to be nesting on site; however, the species is non-migratory in the region and is assumed to breed within the immediate area of the project site.
Northern harrier (nesting) <i>Circus cyaneus</i>	–	CSC	–	Nests on the ground, sometimes under shrubs; Forages over a variety of open habitats.	None – suitable foraging habitat is present throughout most of the site; nesting habitat is not present on site and no longer known to nest in the surrounding area.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
Western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	BCC, FSS	SE	–	Nests in riparian jungles of willow, often mixed with cottonwood, with an understory of blackberry, nettles, or wild grape.	None – riparian habitats on site are too open to support this species.
Yellow warbler (nesting) <i>Dendroica petechia brewsteri</i>	–	–	SSC	Riparian plant associations, preferably of willow, cottonwood, aspen, sycamore, and alder for nesting and foraging. Also nests in montane shrubbery of open conifer forests.	Present – one individual was observed on site in the 2006 survey; however, the species is not expected to nest on the property. Riparian vegetation is limited and is not expected to fulfill requirements of the species.
Snowy egret (rookery) <i>Egretta thula</i>	–	–	USBC	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	None – the site lacks habitats that would support a rookery, but individual snowy egrets have been observed foraging on site.
White-tailed kite (nesting) <i>Elanus leucurus</i>	–	DFG	–	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to close to isolated, dense-topped trees for nesting and perching.	Moderate – not detected during on-site surveys but project site has foraging habitat in the form of non-native grasslands and coastal sage scrub.
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	FE, FSS (full species)	SE (full species)	USBC, AWL, ABC (all include full species)	Makes short sallies for flying insects from exposed perches in willow thickets or from low perches in adjacent meadows; occasionally eats berries and seeds. Dense willow thickets are required for nesting and roosting. Low, exposed branches are used for singing posts and hunting perches. Nesting site usually near languid stream, standing water, or seep. Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters.	None – riparian communities on site are not extensive or dense enough to support this species.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
California horned lark <i>Eremophila alpestris actia</i>	–	DFG:WL	–	Mostly eats insects, snails, and spiders during breeding season; adds grass and forb seeds and other plant matter to diet at other seasons. Walks along ground, searching for food. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover. Builds grass-lined cup-shaped nest in depression on ground in the open. Frequents grasslands and other open habitats with low, sparse vegetation.	Present – have been detected on site. Suitable habitat is present in grassland, ruderal and sparse scrub communities on site; horned lark has been observed during the course of surveys conducted on site.
Merlin <i>Falco columbarius</i>	–	DFG:WL	–	Seacoast, tidal estuaries, open woodlands, savannas, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Low – not detected during on-site surveys. Oak habitats on site provide suitable nesting and foraging habitat.
Prairie falcon (nesting) <i>Falco mexicanus</i>	BCC	DFG:WL	–	Breeds on cliffs in dry, open terrain and forages far afield, even to marshlands and ocean shores.	Low – the site lacks nesting habitat, but prairie falcons may occasionally forage over the project site. This species was observed by Impact Sciences biologists within Vasquez Canyon, approximately 3 to 4 miles north of the project site.
California condor <i>Gymnogyps californianus</i>	FE	SE, CDF, DFG	USBC, AWL, ABC	Nets in deep canyons containing clefts in rocky walls of mountain ranges of moderate altitude. Forages up to 100 miles from nest sites over vast expanses of open savanna, grasslands, and foothill habitats.	Low – California condors have been recorded at Bear Divide, 5 miles south of the project site. These animals were not nesting, and recent records do not indicate that nesting occurs within the San Gabriel Mountains. However, they are likely to fly over the project site occasionally but would not be expected to land given the lack of cattle ranching and large animal carcasses.
Yellow-breasted chat (nesting) <i>Icteria virens</i>	–	CSC	–	Summer resident in riparian thickets of willow and other brushy tangles such as blackberry and wild grape near water courses. Forages and nests within 10 ft. of the ground.	Low – occasional migrant. Suitable breeding habitat is not present on site.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
Loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	BCC	CSC	–	Found in broken woodlands, savanna, pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low – this species is becoming rare in the region; however, suitable habitat is present throughout the project site.
Black-crowned night heron (rookery) <i>Nycticorax nycticorax</i>	BLMS	–	–	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Low – the site lacks habitats that would support a rookery, but individual black-crowned night herons are likely to forage on site while surface water is present or while relatively mesic conditions prevail, such as during winter and early spring.
Summer tanager <i>Piranga rubra</i>	–	SSC	–	Breeds in mature, desert riparian habitat dominated by cottonwoods and willows. Eats insects, spiders, and small fruits. Gleans from foliage and bark, and hawks flying insects. Eats many bees and wasps; often takes larvae from hives and nests. Cottonwoods and willows, especially older, dense stands along rivers and streams, provide nesting, feeding, and other cover.	Present – an individual was observed once during surveys in 2006. However, the species is not expected to nest on the property due to marginal habitat on site.
Coastal California gnatcatcher <i>Polioptila californica californica</i>	FT	CSC	USBC, AWL, ABC	Obligate permanent resident of coastal sage and alluvial scrub habitats below 800 m msl in Southern California.	None – Compliance biology conducted California gnatcatcher surveys in 2006 but the species was not found on site. Subsequent focused surveys for California gnatcatcher were not required by USFWS for the project site due to lack of suitable habitat and proximity to existing development.

Common name <i>Scientific name</i>	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Birds (continued)					
Allen's Hummingbird <i>Selasphorus sasin</i>	–	–	AWL, USBC	A common summer resident (January to July) and migrant along most of the California coast. Breeders are most common in coastal scrub, valley foothill hardwood, and valley foothill riparian habitats, but also are common in closed-cone pine-cypress, urban, and redwood habitats. Occurs in a variety of woodland and scrub habitats as a migrant. Although mostly coastal in migration, fairly common in southern mountains in summer and fall migration, and a few occur regularly in the Sierra Nevada. Very rare in fall, and rare to uncommon in spring, on the Farallon Islands. The subspecies <i>S. s. sedentarius</i> is a common resident of the Channel Islands (except San Nicolas and Santa Barbara islands, where it is an occasional visitant), and of the Palos Verdes Peninsula, Los Angeles Co. Cover is provided by shrubs and trees near foraging areas. Breeds in sparse and open woodlands, coastal redwoods, and sparse to dense scrub habitats. Widespread on the Channel Islands. Distribution highly dependent on abundance of nectar sources.	Present – observed during the course of surveys conducted on site.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE, BCC	SE	USBC, AWL, ABC	Summer resident of Southern California in low riparian habitats in the vicinity of water or in dry river bottoms below 2000 ft. Nests are placed along margins of bushes or on twigs projecting into pathways, usually on willow, mulefat or mesquite.	None – riparian vegetation is limited within the project site and is not expected to fulfill requirements of the species.
Gray vireo <i>Vireo vicinior</i>	BCC, BLMS	CSC	USBC, AWL, ABC	Dry chaparral, west of desert, in chamise-dominated habitats; mountains of Mojave desert, associated with Juniper and <i>Artemisia</i> . Forage, nest, and sing in areas formed by a continuous growth of twigs, 1 to 5 ft. above ground.	Moderate – while suitable habitat is present on the project site, this species has not been observed on the project site.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Mammals					
Pallid bat <i>Antrozous pallidus</i>	FSS, BLMS	CSC	WBWG High	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in small colonies of 12 to 100 bats within rock crevices, caves, mineshafts, under bridges, in buildings, and tree hollows. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low – not detected during surveys on site, limited roosting and foraging habitat on and adjacent to the site. May fly over the site during migration.
Townsend's big-eared bat <i>Chorynorhinus townsendii</i>	FSS, BLMS	CSC	WBWG High	Caves and buildings in desert scrub, pine and pinyon juniper habitats throughout the western U.S.	Low – Not detected during on-site surveys. Limited roosting and foraging habitat on and adjacent to the site. May fly over the site during migration.
Spotted bat <i>Euderma maculatum</i>	BLMS	CSC	WBWG High	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Needs rock crevices in cliffs or caves for roosting.	None – suitable roosting habitat is not present on site.
Western mastiff bat <i>Eumops perotis californicus</i>	BLMS	CSC	WBWG High	Roosts in crevices in cliff faces, high buildings, trees and tunnels within many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	Low – limited roosting and foraging habitat on and adjacent to the site. Not detected during on-site surveys. May fly over the site during migration.
Western red bat <i>Lasiurus blossevillii</i>	FSS	–	WBWG High	Roosts primarily in trees 2 to 40 ft. above the ground, from sea level to mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Low – limited roosting and foraging habitat on and adjacent to the site. Not detected during on-site surveys. May fly over the site during migration.
Hoary bat <i>Lasiurus cinereus</i>	–	–	WBWG Med.	Roosts among evergreen branches throughout the continental U.S.	None – suitable roosting habitat is not present on site. Not detected during on-site surveys.
Western yellow bat <i>Lasiurus xanthinus</i>	–	–	WBWG High	Found in valley foothill riparian, desert riparian, desert wash, and desert palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Low – suitable roosting habitat may be present within riparian trees on site, but these are generally sparse and lack useful cavities. Not detected during on-site surveys.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Mammals (continued)					
San Diego black-tailed jackrabbit <i>Lepus californica bennettii</i>	–	CSC	–	Shrub habitats and intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges.	Present – several of the biological surveys documented the presences of scat that was attributable to San Diego black-tailed jackrabbit. A single San Diego black-tailed jackrabbit was observed in a survey conducted in 2008. The fact that biologists have observed only one San Diego black-tailed jackrabbit in surveys from 2005 to 2008 indicates that the numbers on the project site are low.
Western small-footed myotis <i>Myotis ciliolabrum</i>	BLMS	–	WBWG Med.	Prefers open stands in forests and woodlands; required drinking water; feeds on a wide variety of small flying insects across a wide range of habitats, mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines and crevices.	Low – not detected during on-site biological surveys - may occur from time to time, particularly during migration.
Long-eared myotis <i>Myotis evotis</i>	BLMS	–	WBWG Med.	Nursery colonies in buildings, crevices, spaces under bark and snags. Caves used primarily as night roosts. Found in all brush, woodland and forest habitats from sea level to about 300 m msl. Prefers coniferous woodlands and forests.	Low – not detected during on-site biological surveys. Some marginal, but suitable roosting habitat, is present on site.
Fringed myotis <i>Myotis thysanodes</i>	BLMS	–	WBWG High	Irregular to common in a wide variety of habitats; records range in elevation from sea level to 2,850 m. Optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer, generally at 1,300 to 2,200 m (4,000 to 7,000 ft). Feeds over water, over open habitats, and by gleaning from foliage. Cover: Roosts in caves, mines, buildings, and crevices. Separate day and night roosts may be used	Low – not detected during on-site biological surveys -roosting habitats on site are marginal for this species.
Cave myotis <i>Myotis volans</i>	BLMS	CSC	WBWG Med.	Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings. Most common above 1,200 m msl. Trees are important day roosts; caves and mines are night roosts.	Low – not detected during on-site biological surveys -may occur from time to time, particularly during migration.

Common name Scientific name	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site
Mammals (continued)					
Yuma myotis <i>Myotis yumaensis</i>	BLMS	–	WBWG Low-Med.	Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings, or crevices. Optimal habitats are open forests and woodlands with sources of water over which to feed.	None – water availability on site is ephemeral and not suitable for this species' habitat requirements.
Lodgepole chipmunk <i>Neotamias speciosus speciosus</i>	–	–	Special Animals List	Usually found in open canopy forests, lodgepole pine forests in the San Bernardino Mountains and chinquapin slopes on the San Jacinto Mountains.	None – the site does not support any of the montane habitats suitable for this species.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	–	CSC	–	Moderate to dense canopies in coastal scrub of Southern California from San Diego County to San Luis Obispo County. Particularly abundant in rock outcrops, rocky cliffs and slopes.	Low – suitable habitat for this species is present throughout the site, though it was not detected during trapping surveys conducted on site.
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	–	CSC	–	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropod prey, especially scorpions and orthopterans.	Low – suitable habitat for this species is present in scrub habitats throughout the site, though it was not detected during trapping surveys conducted on site.
American badger <i>Taxidea taxus</i>	–	CSC	–	Drier, open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low – some suitable habitat is present, however no burrows or other signs indicative of presence detected on site.

Common name <i>Scientific name</i>	Federal status	State status	Other lists	Habitat requirements	Potential to utilize the project site																					
Mammals (continued)																										
Ringtail (Ring-tailed cat) <i>Bassariscus astutus</i>	-	-	CDFG (FP)	Occurs in various riparian habitats, and in brush stands of most forest and shrub habitats, at low to middle elevations. Ideal habitat consists of a mixture of forest and shrub land in close association with rocky areas or riparian habitats.	None – no suitable habitat present on or adjacent to the site.																					
<p><i>Status abbreviations</i></p> <table> <tr> <td><u>Federal</u></td> <td><u>State</u></td> <td><u>Other</u></td> </tr> <tr> <td>FE: Federally listed as Endangered</td> <td>SE: state-listed as Endangered</td> <td>AWL: Audubon Watchlist</td> </tr> <tr> <td>FT: Federally listed as Threatened</td> <td>ST: state-listed as Threatened</td> <td>ABC: American Bird Conservancy Green List</td> </tr> <tr> <td>BLMS: Bureau of Land Management Sensitive Species</td> <td>CDF: California Department of Forestry and Fire Protection Sensitive</td> <td>USBC: United States Bird Conservation Watch List</td> </tr> <tr> <td>FSS: USDA Forest Service Sensitive</td> <td>CSC: California Special Concern Species</td> <td>WBWG: Western Bat Working Group: High, Medium and Low priority</td> </tr> <tr> <td>BCC: Fish and Wildlife Service Birds of Conservation Concern</td> <td>DFG: California Department of Fish and Game Fully Protected</td> <td></td> </tr> <tr> <td></td> <td>DFG:WL Watch List</td> <td></td> </tr> </table>						<u>Federal</u>	<u>State</u>	<u>Other</u>	FE: Federally listed as Endangered	SE: state-listed as Endangered	AWL: Audubon Watchlist	FT: Federally listed as Threatened	ST: state-listed as Threatened	ABC: American Bird Conservancy Green List	BLMS: Bureau of Land Management Sensitive Species	CDF: California Department of Forestry and Fire Protection Sensitive	USBC: United States Bird Conservation Watch List	FSS: USDA Forest Service Sensitive	CSC: California Special Concern Species	WBWG: Western Bat Working Group: High, Medium and Low priority	BCC: Fish and Wildlife Service Birds of Conservation Concern	DFG: California Department of Fish and Game Fully Protected			DFG:WL Watch List	
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(3) Nesting birds

The Migratory Bird Treaty Act protects the majority of migratory birds breeding in the US regardless of their official status. The Act specifically states that it is illegal “for anyone to take...any migratory bird...nests, or eggs.”⁴⁷ “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.⁴⁸ The California Fish & Game Code protects the nests and eggs of all birds and specifically states, “that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird.”⁴⁹ The Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”⁵⁰

Most on-site habitats provide nesting substrate for one or more bird species. Forde Biological Consultants' Daniel S. Cooper, and Ron Francis Jr. confirmed that red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), acorn woodpecker (*Melanerpes formicivorus*), western kingbird (*Tyrannus verticalis*), California horned lark (*Eremophila alpestris actia*), oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), western bluebird (*Sialia mexicana*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), phainopepla (*Phainopepla nitens*), California towhee (*Pipilo crissalis*), blue grosbeak (*Passerina caerulea*), Bullock's oriole (*Icterus bullockii*), and house finch (*Carpodacus mexicanus*) nest on the property.⁵¹

Species expected to nest at the property and those with moderate to high potential to nest at the property include American kestrel (*Falco sparverius*), greater roadrunner (*Geococcyx californianus*), barn owl (*Tyto alba*), great horned owl (*Bubo virginianus*), lesser nighthawk (*Chordeiles acutipennis*), common poorwill (*Phalaenoptilus nuttallii*), black-chinned hummingbird (*Archilochus alexandri*), northern flicker (*Colaptes auratus*), Nuttall's woodpecker (*Picoides nuttallii*), downy woodpecker (*Picoides pubescens*), black phoebe (*Sayornis nigricans*), ashthroated flycatcher (*Myiarchus cinerascens*), Cassin's kingbird (*Tyrannus vociferans*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), tree swallow (*Tachycineta bicolor*), violet-green swallow (*Tachycineta thalassina*), cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), northern rough-winged swallow (*Stelgidopteryx serripennis*), wrentit

⁴⁷ 16 U.S.C. §§ 703-712, Migratory Bird Treaty Act of 1918 as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986 and 1989.

⁴⁸ 50 C.F.R. § 10.12.

⁴⁹ CA. Fish & Game Code § 3503.

⁵⁰ CA. Fish & Game Code § 86.

⁵¹ Observation of territorial males, certain behavior, adults carrying nest material, eggshell fragments, food, or fecal sacs, presence of newly fledged young and detection of begging and other types of calls are acceptable evidence of nesting.

(*Chamaea fasciata*), common bushtit (*Psaltriparus minimus*), house wren (*Troglodytes aedon*), blue-gray gnatcatcher (*Polioptila caerulea*), American robin (*Turdus migratorius*), common yellowthroat (*Geothlypis trichas*), spotted towhee (*Pipilo maculates*), song sparrow (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), black-headed grosbeak (*Pheucticus melanocephalus*), lazuli bunting (*Passerina amoena*), western meadowlark (*Sturnella neglecta*), American goldfinch (*Carduelis tristis*), lesser goldfinch (*Carduelis psaltria*), and Lawrence's goldfinch (*Carduelis lawrencei*). Brown-headed cowbirds (*Molothrus ater*) may be present, as they lay their eggs in the nests of other species including a number of the species observed or otherwise detected at the property.

The CDFG defines the breeding season in Southern California as occurring between March 1 and September 15. However, some of the species known to nest on the property, and others expected or with potential to nest on the property, nest outside this timeframe. For example, Anna's hummingbird nests mid-December to mid-August. Barn owl nests January through November. Bewick's wren nests mid-February through early August. California thrasher nests early December into early August. Common bushtit nests February into early August. Great-horned owls nest mid-January through June. Mourning dove nests January into late September. Northern mockingbird nests mid-February into late September. Phainopepla nest late February into July.

(4) Sensitive Vegetation Communities

A total of 18 plant communities (and alliances/associations) and one existing land use area were identified and characterized as occurring on the project site during the field investigations. These are shown below in **Table 4.6-4, Existing Vegetation Communities, Floristic Alliances, and Associations and Land Cover Types in Project Area**. Eight of the 18 plant communities (and associated alliances/associations⁵²) correspond with the *Vegetation Classification and Mapping Program, List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003). These 8 communities (and alliances/associations) include the following:

52 Alliances are named for constant dominants or codominants in the uppermost canopy layer. When a group concept contains two layers of vegetation (e.g. Tall temperate grassland with sparse broad-leaved evergreen shrubs), the alliance is named after species in the dominant stratum, while the association name includes species from the dominant and upper-most strata.

Associations are named with species from the alliance name, and have additional species that represent dominants or indicators from any layer of the vegetation. When an association has several layers, an attempt is made to include species that are dominants or indicators from at least the two most dominant layers. Indicator species are those species, other than dominants, which have been chosen to distinguish an association or alliance from others like it, or to indicate specific environmental conditions that have a controlling influence on vegetation in the community. However, the indicator species are seldom limited to controlling influence on vegetation in the community. Descriptive terms such as wetland, mesic, serpentine, etc., are used sparingly, when species composition for a type is not known well enough to provide full representation using species alone.

Table 4.6-4, below, includes, where applicable, the codes corresponding to the CDFG (2003) system. The vegetation communities occurring on the project site are discussed below. The vegetation communities have been mapped on the project site as shown on **Figure 4.6-2, Vegetation Types on the Vista Canyon Project Site**, above. A list of all plant species observed on the project site is included in **Appendix 4. 6**.

**Table 4.6-4
Existing Vegetation Communities, Floristic Alliances,
and Associations and Land Cover Types in Project Area**

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
Scrub and Chaparral (30.000.00)	Coastal Scrub (32.000.00)	California buckwheat scrub (32.040.00)	California buckwheat - big sagebrush scrub (32.040.03)	2.9
		California sagebrush–California buckwheat scrub (32.110.00)	Not mapped to association level	6.3
		Mixed sagebrush native and non-native	Not mapped to association level	1.9
		Yerba santa series	Not mapped to association level	1.3
	Great Basin Scrub (35.000.00)	Big sagebrush scrub (35.110.00)	Big sagebrush (35.110.02)	2.0
	Chenopod Scrub (36.000.00)	Alluvial scrub (terrace) and Dwarf scrub (36.300.00)	Not mapped to association level	8.1
	Chaparral with Chamise with or without codominant shrubs (37.100.00)	Chamise chaparral (37.101.00)	Not mapped to association level	7.2
Grass and Herb Dominated Communities (40.000.00)	Native Grassland (41.000.00)	Creeping Ryegrass Grassland (41.080.00)	Not mapped to association level	0.7
		Saltgrass (41.200.00)	Not mapped to association level	0.5
	Non-Native Annual Grassland – Ruderal (42.000.00)	California annual grassland (42.040.00)	Not mapped to association level	37.3

General Physiognomic and Physical Location	General Habitat Type	Floristic Alliance	Association	Acreage
Riparian and Bottomland Habitat (60.000.00)	Riparian Forest and Woodland (61.000.00)	Fremont cottonwood riparian forest and woodland (61.130.00)	Southern cottonwood-willow riparian (61.130.02)	3.9
	Low to High Elevation Riparian Scrub (63.000.00)	Blue elderberry – mixed sagebrush (63.400.00)	Not mapped to association level	2.1
		Mulefat scrub (63.510.00)	Not mapped to association level	0.3
	Other Riparian/Wetland	Riparian scrub	Not mapped to association level	79.5
Broad Leafed Upland Tree Dominated (70.000.00)	Oak Woodland and Forest (71.000.00)	Coast live oak forest and woodland (71.060.00)	Coast live oak woodland (71.060.19))	9.0
Man-Made Land Cover Types		Disturbed land	N/A	19.8
		Total		185

Note: Species identification numbers refer to California Natural Diversity Database (CNDDDB) vegetation classifications for that species. Total acreage rounded.

(5) Scrub and Chaparral (30.000.00)

There are 29.7 acres of scrub and chaparral (including alliances and associations) on the project site. Of this acreage, 6.3 acres are mapped as the California sagebrush-California buckwheat scrub alliance. This alliance occurs on the southern hill, north of the Metrolink railroad tracks. Big sagebrush scrub occurs as 2.0 acres mixed with California sagebrush and 2.9 acres of California buckwheat-big sagebrush scrub. These communities are scattered south of the Santa Clara River, outside of the floodplain. The 1.3 acres of the yerba santa series occurs adjacent to the California buckwheat-big sagebrush scrub in the center of the project site. In addition, there are 1.9 acres of mixed sagebrush consisting of both native and non-native species and adjacent to disturbed areas to the southwest of the project site and near the bike path north of the Santa Clara River. Alluvial Scrub (terrace) occupies 8.1 acres directly adjacent to the chamise vegetation on Mitchell Hill. Chamise chaparral is present in the northeast hill on the project site and occupies 7.2 acres.

Dominant native species found in these vegetation communities include California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*), big sagebrush (*Artemisia tridentata* ssp. *parishii*), chamise (*Adenostoma fasciculatum*), yerba santa (*Eriodictyon crassifolium*), saltbush (*Atriplex lentiformis* and *A. canescens*). Other common plants include deerweed (*Lotus scoparius*) and giant wild-rye (*Leymus condensatus*).

Of these vegetation communities, the big sagebrush associations are considered sensitive plant communities by CDFG.

(6) Grass and Herb Dominated Communities (40.000.00)

There are 38.5 acres of grass and herb-dominated communities (including alliances and associations) on the project site. Of this acreage, 37.3 acres are mapped as non-native annual grassland-ruderal alliance. This community occurs on much of the project site south of the Santa Clara River. Smaller stands of native grassland habitats include the saltgrass and alkali rye (as creeping ryegrass grassland) series, covering 0.5 and 0.7 acre, respectively. These habitats occur toward the center of the southern property boundary. The dominant species are the non-native forbs such as mustard (*Brassica*, *Hirschfeldia* and *Sisymbrium* species), and the native saltgrass (*Distichlis spicata*) and alkali rye (*Leymus triticoides*).

Of these vegetation communities, the creeping ryegrass grassland (alkali rye) association is considered a sensitive plant community by CDFG.

(7) Riparian and Bottomland Habitat (60.000.00)

The on-site riparian and bottomland habitats are dominated by the 79.5 acres of riparian scrub within the River Corridor. In addition, there are 3.9 acres of southern cottonwood-willow riparian woodland located in the northeast corner of the project site. A blue elderberry – mixed sagebrush habitat comprising 2.1 acres occurs in the southeastern portion of the project site. There is also 0.3 acre of mulefat scrub in the south central portion of the project site. The dominant species are scalebroom (*Lepidospartum squamatum*), Fremont cottonwood (*Populus fremontii*), willow species (*Salix exigua*, *S. goodingii*, *S. laevigata*, and *S. lasiolepis*), blue elderberry (*Sambucus mexicana*), and mulefat (*Baccharis pilularis*). The non-native and invasive giant reed (*Arundo donax*) is present in the riparian scrub.

Of these vegetation communities, the southern cottonwood-willow riparian association is considered a sensitive vegetation community by CDFG.

(8) Broad Leafed Upland Tree Dominated (70.000.00)

The only broad-leafed upland tree dominated community is the coast live oak woodland, which occurs over 9.0 acres along the eastern property boundary and in a few small stands on the slopes of the southern hill, just north of the railroad track. The dominant species is coast live oak (*Quercus agrifolia*).

The CDFG does not consider this to be a sensitive vegetation community.

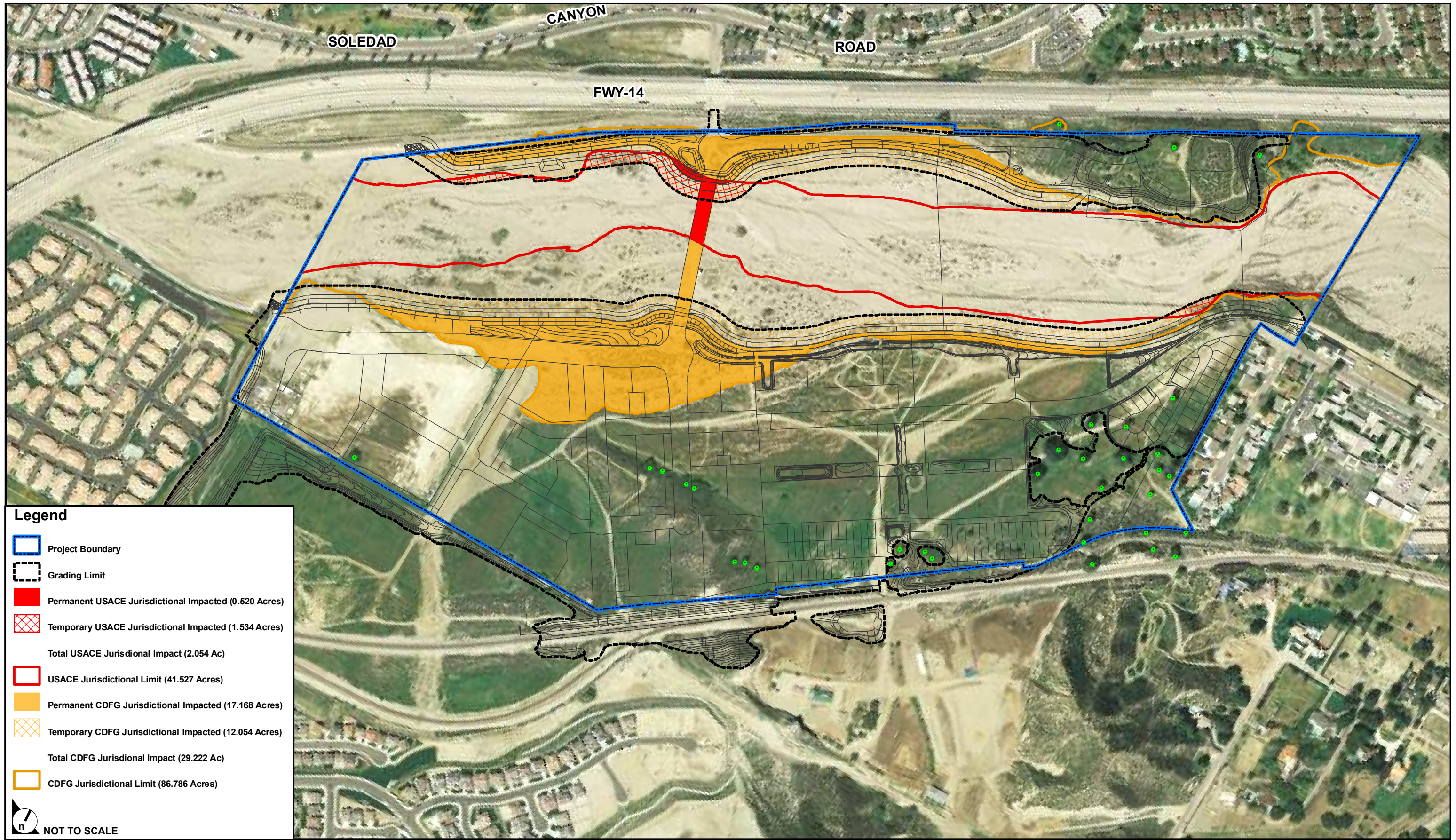
d. Jurisdictional Waters, Streambeds and Riparian Resources

The filling or modification of streams, wetlands, and waterways is regulated under several federal and state statutes. For the proposed project, future discretionary approvals relative to these issues are required pursuant to section 404 of the federal Clean Water Act and section 1600 *et seq.*, of the California Fish and Game Code.

A reach of the Santa Clara River traverses through the project site. On December 29, 2005, and January 7, 2006, Forde Biological Consultants delineated US Army Corps of Engineers (USACE) jurisdiction and determined the ordinary high water mark using drift lines, watermarks, sediment deposits, and shelving as indicators. Forde Biological Consultants also delineated CDFG jurisdiction using the tops of each bank and contiguous riparian vegetation. Because river wash and sandy alluvial land are subject to frequent and regular fluvial processes, the Natural Resources Conservation Service (NRCS) considers them hydric.⁵³ Forde Biological Consultants confirmed the presence of river wash and sandy alluvial land consisting of erratically stratified layers of sand, gravel, stone, and cobble with little or no organic matter. Based on the above evidence, areas within the river meet hydrology and hydric soil criteria; therefore, areas dominated by hydrophytes are considered wetlands.

Using this as the baseline, Forde Biological Consultants identified areas dominated by hydrophytic vegetation above the ordinary high water mark within the Santa Clara River as adjacent wetlands. In a letter dated September 18, 2006, Dr. Aaron Allen, USACE, agreed with the delineation, determining USACE jurisdiction. The adjacent wetland identified above the ordinary high water mark closest to the terminus of Lost Canyon Road is fed by irrigation runoff emanating from La Veda Avenue, which supports sparse patches of mulefat (*Baccharis salicifolia*). **Figure 4.6-4** depicts the USACE's and CDFG's streambed delineation limits relative to the project site.

⁵³ National Hydric Soils List by State, January 2008. Located at <http://soils.usda.gov/use/hydric/lists/state.html>



SOURCE: Impact Sciences, Inc. – June 2010

FIGURE 4.6-4

CDFG and USACE Jurisdictional Areas



In addition to occupying areas within the Santa Clara River, mulefat occurs in a small depression on the east side of the hill near the southern boundary of the property. Curly dock (*Rumex crispus*) is also present near this depression. Although the “National List of Plant Species that Occur in Wetlands” lists these species as FACW (facultative wetland plant) – regional indicators, neither standing water nor saturated soils, were observed in this area; however, marks indicating water flow were evident. The marks emanate from the railroad underpass and have been since determined to be a byproduct of routine cleaning of the adjacent horse ranch. Test pits revealed the associated soil was a loam with little to no organic content, no gleyed or low-chroma colors, and no sulfidic odor. Thus, it was determined that the area does not meet the definition of a wetland. Other areas, including a saltgrass-dominated area (FACW) and two alkali rye dominated areas (*Leymus triticoides* – FAC+) also lack hydric soils and have been determined not to comprise USACE jurisdiction.

4. IMPACT ANALYSIS

a. Methodology

Direct impacts of a proposed project on biological resources can take several forms, but typically involve the loss, modification, or disturbance of natural habitat (i.e., plant communities or other naturally occurring areas), which, in turn, directly affects plant and wildlife species dependent on that habitat. To determine areas of expected impact on biological resources, proposed grading plans were evaluated and compared with vegetation and wildlife maps. The level of significance of potential impacts on habitat areas is determined by an evaluation of the overall biological value of a habitat area with respect to significance threshold criteria (described below). The relative value of each of the plant communities present on site is measured by such factors as its disturbance history, biological diversity, importance to particular plant and wildlife species, uniqueness or sensitivity status, as well as the surrounding environment and the presence of special-status resources. The significance of impacts with respect to direct impacts on individuals or populations of plant and animal species takes into consideration the number of individual plants or animals potentially affected, how common or uncommon the species is both on the project site and from a regional perspective, and the sensitivity status if the species is considered of special-status by resource agencies. These factors are evaluated based on the results of on-site biological surveys and studies, results of literature and database reviews, discussions with biological experts, and established and recognized ecological and biodiversity theory and assumptions. It should be noted that this portion of the EIR addresses the direct and indirect biological impacts of the proposed project resulting from the conversion of land to development-related land uses. Impacts generated by the hydraulic and hydrological changes to the River Corridor resulting from installation of buried bank stabilization and a bridge across the Santa Clara River are addressed in this EIR, **Section 4.20, Santa Clara River Corridor Analysis**.

b. Significance Criteria

(1) State CEQA Guidelines

Significant impacts on biological resources posed by the proposed project were determined from criteria stated in the *State CEQA Guidelines*. Appendix G, states that a project's impact on biological resources would be significant if such impacts resulted in any of the following:

- Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFG or USFWS.
- Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.
- Substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (This criterion is addressed separately in this EIR, **Section 4.20, Santa Clara River Corridor Analysis.**)
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.⁵⁴ (The wildlife movement corridor component of this criterion is addressed separately in this EIR, **Section 4.20, Santa Clara River Corridor Analysis.**)
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan. (As to this last criterion, the project site is not encompassed within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan; and, therefore, this criterion is not discussed any further.)

Section 15065(a) of the *State CEQA Guidelines* also states that a project may have a significant effect on the environment when the project has the potential for any of the following:

- Substantially degrade the quality of the environment;
- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife population to drop below self-sustaining levels;

⁵⁴ Please note that neither the project site nor the vicinity includes any "native wildlife nursery sites" that require analysis under Appendix G of the State CEQA Guidelines; therefore, this particular criteria is not addressed further in this section.

- Threaten to eliminate a plant or animal community; or
- Reduce the number or restrict the range of an Endangered, Rare, or Threatened species.

The above *State CEQA Guidelines* that relate to substantial adverse effects on, or substantial interference with, special-status aquatic species, riparian habitat, and jurisdictional resources, including wetlands, are addressed separately in **Section 4.20**, above, of this EIR.

(2) City CEQA Guidelines

The City of Santa Clarita Local CEQA Guidelines (Resolution 05-38) adopted on April 26, 2005, also serve as the basis for identifying thresholds to determine the significance of the environmental effects of a project on this resource area, and have been included for analysis. As to the thresholds of significance, a project could have a potentially significant impact on biological resources if it would result in any of the following:

- Removal of any heritage oak tree, as defined in Unified Development Code 17.17.090, removal of more than five oak trees for a project on a site that has an existing single-family residence, or the removal of more than three oak trees, proposed as part of any other project.
- Disturbance of, or encroachment into, any river, river tributary, riparian habitat, stream or similar waterway identified on a United States Geological Survey map as a “blue-line” watercourse, or any waterway otherwise identified as a significant resource by the City of Santa Clarita.
- Disturbance of any habitat known or suspected to contain a plant or animal species listed as endangered on such federal and/or state lists.
- Disturbance to any Significant Ecological Area (SEA) as identified by the City of Santa Clarita. (This criterion is addressed separately in this EIR, **Section 4.20, Santa Clara River Corridor Analysis**.)

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Impacts are sometimes locally important but not significant according to CEQA because, although they would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide, or region-wide, basis.

c. Direct Impacts

The following section focuses on the direct effects of implementation of the proposed project on vegetation communities, common and special-status plant and wildlife species, and movement corridors. Because most biological resources, particularly plants and wildlife, are dependent upon the condition, extent, and character of specific ecosystems and habitat types, impacts on these resources are generally discussed in terms of the effect of project-related activities on natural habitat areas, (i.e., on vegetation communities). However, direct impacts with respect to specific plant and wildlife resources (e.g., active nests, dens, and individual plants and animals) are also evaluated and discussed when impacts on these

resources, in and of themselves, could be considered significant or conflict with local, state, and federal statutes or regulations.

The principal direct impact of implementation of the proposed project is to convert approximately 117 acres of the project site (about 64 percent) from an undeveloped to a developed condition. The acreage and percentage of each of the vegetation/habitat types expected to be disturbed on the site as a result of project implementation are provided in **Table 4.6-5, Vista Canyon Habitat Acreages and Impacts**, and are described below.

**Table 4.6-5
Vista Canyon Habitat Acreages and Impacts**

Vegetation Type	Existing Area (acres)	Project Impact Permanent Area (acres)	Project Impact Area Temporary (acres)	Undisturbed Area (acres)	Proportion Disturbed (%)
Coast live oak	9.0	4.3	0.0	4.7	48
Fremont cottonwood-willow riparian	3.9	0.2	0.2	3.6	10
Big sagebrush-buckwheat	2.9	1.8	0.4	0.7	76
California sagebrush-buckwheat	6.3	6.3	0.0	0.0	100
Chamise	7.2	5.8	0.0	1.4	81
Elderberry	2.1	1.7	0.0	0.4	81
Riparian scrub	79.5	14.5	12.3	52.7	34
Mixed native and non-native	1.9	1.6	0.3	0.0	100
Sagebrush	2.0	1.8	0.0	0.2	90
Mulefat	0.3	0.3	0.0	0.0	100
Alkali rye	0.7	0.7	0.0	0.0	100
Saltgrass	0.5	0.5	0.0	0.0	100
Alluvial scrub (terrace)	8.1	8.0	0.0	0.1	99
Non-native annual grassland-ruderal	37.3	35.6	0.1	1.5	95
Yerba santa	1.3	1.3	0.0	0.0	100
Disturbed	22.0	18.8	0.5	2.7	88
TOTAL	184.9	103.2	13.8	65.7	64

(1) Impacts on Vegetation Communities

Coast live oak associations – Impacts to 4.3 acres of the 9.0 acres of coast live oak associations would occur with the implementation of the proposed project. This loss represents about 48 percent of the coast live oak associations on the project site.

Coast live oak associations provide habitat for a variety of common and special-status wildlife species. Although not considered a sensitive habitat type by CDFG, it can be important to a number of special-status bird species known to occur in this region for foraging, perching, and nesting, including Cooper's hawk, Lawrence's goldfinch, white-tailed kite, and merlin, and is also known to support several special-status reptile and mammal species, including silvery legless lizard, San Bernardino ringneck snake, pallid bat, western mastiff bat, western red bat, western yellow bat, western small-footed myotis, long-eared myotis, fringed myotis, cave myotis, and Yuma myotis. Because they support several special-status animal taxa, the loss of coast live oak associations on site is considered a significant impact, absent mitigation. With implementation of **Mitigation Measures 4.6-34 to 4.6-62**, the impact would be reduced to less than significant. The loss of individual oak trees (trees numbered 4, 25, 26, 27, 28, 29, 30, 31, 32, and 54) and encroachments (trees numbered 1, 3, 33, 34, 38, 47, 50, 52, 53, and 71) are addressed later in this section.

Cottonwood associations – Permanent impacts to 0.2 acre and temporary impacts to 0.2 acre of the 3.9 acres of cottonwood associations, including Fremont cottonwood-willow riparian woodland would occur with the implementation of the proposed project. This loss represents about 10 percent of the cottonwood associations on the project site. This is considered a sensitive habitat by CDFG and the vegetation can be important to a number of special-status bird species known to occur in this region for foraging, perching, and nesting, including, among others, Lawrence's goldfinch. Therefore, the loss of cottonwood associations on site is considered a significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-2**, the impact would be reduced to less than significant. (See also, **Section 4.20, Santa Clara River Corridor Analysis**, of this EIR.)

Big sagebrush associations – Implementation of the proposed project would result in permanent impacts to 3.6 acres and temporary impacts to 0.4 acre of the 4.9 acres of the CDFG sensitive community big sagebrush associations. This total represents approximately 73 percent of the total big sagebrush associations present on the project site.

Big sagebrush associations on the site provide habitat for a variety of plant and animal species, including Pierson's morning glory and several special-status animal species. These species would not be limited to big sagebrush associations on site, however, and specific potential impacts to these special-status animal

species are discussed later in this section. Although a small area would be affected, and Pierson's morning glory is considered common in the region, the loss of 3.6 acres of big sagebrush associations on-site is considered a significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-1**, the impact would be reduced to less than significant. (See also, **Section 4.20, Santa Clara River Corridor Analysis**, of this EIR.)

California sagebrush – California buckwheat series – Implementation of the proposed project would result in impacts to 6.3 acres (100%) of this habitat type present on the site. The California sagebrush – California buckwheat series is not a CDFG sensitive community but provides habitat for a variety of plant and animal species, including slender mariposa lily. Potentially occurring special-status animal species would not be limited to California sagebrush – California buckwheat series on site, and specific potential impacts to these special-status animal species are discussed later in this section. Nevertheless, the loss of 6.3 acres of California sagebrush – California buckwheat series present on the project site is not considered a significant impact, and, therefore, no mitigation is identified or required. (Impacts to the slender mariposa lily are mitigated to less than significant levels under **Mitigation Measure 4.6-1**.)

Chamise series – Implementation of the proposed project would impact 5.8 acres of the 7.2 acres of this habitat to a developed condition (81 percent). One isolated mature coast live oak is present within this community on site and would be encroached upon by implementation of the proposed project. Additionally, the diverse understory may support a number of special-status plant and animal species, including Plummer's mariposa lily and several reptile, mammal and bird species. These species would not be limited to chamise series on site, however, and specific potential impacts to these special-status plant and animal species are discussed later in this section. Because the resources it provides to special-status animal species are not exclusive to this series, the loss of 5.8 acres of this plant community is not considered a significant impact; therefore, no mitigation is identified or required.

Elderberry series – Implementation of the proposed project would impact 1.7 acres of the existing 2.1 acres (100 percent) of this habitat to a developed condition. This habitat may support special-status animal species, including patchnose snake, San Diego desert woodrat, San Diego black-tailed jackrabbit dens, and several bird species. These species would not be limited to elderberry associations on site, however, and specific potential impacts to these special-status animal species are discussed later in this section. Because of the small area affected, and because the resources it provides to special-status animal species are not exclusive to this association, the loss of 1.7 acres of this plant community is not considered a significant impact; therefore, no mitigation is identified or required.

Riparian scrub – Implementation of the proposed project would permanently impact 14.5 acres and temporary impacts of 12.3 acres of the 79.5 acres of this habitat (34 percent).

This community is within the jurisdiction of USACE and CDFG, and impacts to such resources would require permits from each agency. This habitat infrequently supports populations of Santa Ana sucker, unarmored threespine stickleback, and arroyo chub, while surface water is flowing in the Santa Clara River. However, these species are infrequent and, therefore, no significant impact would occur to these species with implementation of the proposed project. The hydrology analysis illustrates minor, localized changes in velocity and water surface elevation to sensitive riverwash or riparian scrub. Permanent impacts to 14.5 acres, and temporary impacts to 12.3 acres, of riparian scrub may substantially affect special-status and wildlife movement opportunities, and such impacts are considered significant, absent mitigation. With implementation of **Mitigation Measure 4.6-2**, the impact would be reduced to less than significant. (See also, **Section 4.20, Santa Clara River Corridor Analysis**, of this EIR.)

Mixed native and non-native series – Implementation of the proposed project will result in permanent impacts to 1.6 acres and temporary impacts to 0.3 acre of the 1.9 acres of mixed native and non-native associations. This total represents 100 percent of the total habitat present on the site. Mixed native and non-native association on the site provides habitat for a variety of plant and animal species including coast horned lizard. However, the loss of 1.9 acres of this habitat type is not considered a significant impact; therefore, no mitigation is identified or required.

Mulefat series – All of the mulefat scrub vegetation that is present on the project site (0.3 acre) will be impacted as a result of project implementation. No special-status plants or wildlife were observed on the site associated with this habitat type. Due to its proximity to the pools found to support a population of western spadefoot, there is a possibility that aestivating individuals of this species may find shelter in this community. Western spadefoot would not be limited to mulefat scrub on site, however, and specific potential impacts to this species are discussed later in this section. Because of the small area affected, and because the resources it provides to special-status animal species are not exclusive to this association, the loss of 0.3 acre of mulefat series on site is not considered a significant impact; therefore, no mitigation is identified or required.

Alkali rye series – All of the alkali rye vegetation that is present on the project site (0.7 acre) would be permanently impacted due to project implementation. No special-status plants or wildlife were observed on the site associated with this habitat type, and only aestivating individuals of western spadefoot may find shelter in this habitat. The values it provides to common and special-status wildlife species are primary those associated with a low cover of herbaceous vegetation and as a source of seasonally abundant insect prey for transient animals. These values could be provided by a number of other habitat types, including annual grassland, which is prevalent in the region, and as such are not irreplaceable. However, CDFG classifies this vegetation community (under creeping ryegrass grassland) as sensitive.

Thus, the loss of 0.7 acre of alkali rye series on site is considered a significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-1**, the impact would be reduced to less than significant.

Saltgrass – All of the saltgrass vegetation that is present on the project site (0.5 acre) will be permanently impacted due to project implementation. No special-status plants or wildlife were observed on the site associated with this habitat type, and none are expected to utilize this vegetation exclusively based on life history requirements. The values it provides to common and special-status wildlife species are primary those associated with a low cover of herbaceous vegetation and as a source of seasonally abundant insect prey for transient animals. These values could be provided by a number of other habitat types, including annual grassland, which is prevalent in the region, and as such are not particularly irreplaceable. Thus, the loss of 0.5 acre of saltgrass series on site is considered a less than significant impact; therefore, no mitigation is identified or required.

Alluvial scrub (terrace) – Implementation of the proposed project would impact 8.0 acres of the 8.1 acres of this vegetation type on site (99 percent). This community on site is to the south of the riparian scrub and directly adjacent to the chamise vegetation on Mitchell Hill and could provide shelter or forage for transient animals moving along the northern edge of the Santa Clara River. However, the alluvial scrub (terrace) south of the riparian scrub and on Mitchell Hill is not expected to provide a valuable role relative to the majority of natural vegetation. Nevertheless, the permanent loss of 8.0 acres of this vegetation type is considered a significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-2**, the impact would be reduced to less than significant.

Non-native annual grassland-ruderal series – Implementation of the proposed project would permanently impact 35.6 acres and temporarily impact 0.1 acre of the 37.3 acres of this vegetation type on site. This represents approximately 9 percent of this vegetation type on the site. Although not considered a sensitive vegetation type, annual grassland provides foraging opportunities for a wide variety of common and special-status bird species, and on site this community may support aestivating western spadefoot toads and western whiptail lizards. The population of western spadefoot observed on the property utilizes rain pools or depressions that form in a dirt road within the area mapped as Non-native herbaceous, and the loss of this breeding pool would be a result of implementation of the proposed project. These species would not be limited to annual grassland-ruderal associations on site, however, and specific potential impacts to these special-status animal species are discussed later in this section. Because this association is common in the region, and because the resources it provides to special-status animal species are not exclusive to this association, the permanent loss of 35.6 acres of annual grassland-ruderal associations on site is not considered a significant impact; therefore, no mitigation is identified or required.

Yerba santa series – Implementation of the proposed project will result in permanent impacts to all 1.3 acres of yerba santa associations. The yerba santa association on site provides habitat for a variety of plant and animal species including coast horned lizard. However, the loss of 1.3 acres of this habitat type is not considered a significant impact; therefore, no mitigation is identified or required.

Disturbed – Implementation of the proposed project would permanently impact 18.8 acres and temporarily impact 0.5 acre of the 19.8 acres of disturbed land on the project site (95 percent). Because the resources provides little to support special-status animal species, and because the vast majority of disturbed land on the site offers negligible biological resource value, the loss of these habitat types is not considered a significant impact; therefore, no mitigation is identified or required. Impacts to western spadefoot are discussed in the section addressing impacts to special-status wildlife.

(2) Common Wildlife

Construction activity and grading operations of the proposed project could temporarily disturb common wildlife species on the site. Some species would be expected to relocate to other areas of similar habitat within the local area. However, wildlife that emigrate from the site are vulnerable to mortality by predation, potential conflicts with people and vehicle traffic, and unsuccessful competition for food and territory. In addition, species of low mobility (particularly amphibians and reptiles) could be eliminated during site preparation and construction.

Replacement of existing vegetation with structures and ornamental landscaping would eliminate natural communities on developed portions of the site and result in a reduction in native wildlife species diversity. A number of animal species would be replaced with a fauna composed of species more tolerant of, or even dependant upon, urban settings.

Because of the relatively common nature of wildlife species that would be displaced or lost as a result of project implementation, current fish or wildlife populations on or adjacent to the project site are not expected to decline below self-sustaining levels. Therefore, no significant impacts on common wildlife reptile, amphibian, or mammal species are expected to occur.

The Migratory Bird Treaty Act and the California Fish and Game Code prohibit the take (defined as destroy, harm, harass, etc.) of bird nests with eggs or young, and a number of bird species could be adversely affected as a result of implementation of the proposed project. The proposed project includes removal of mature trees from the project site. Construction-related activities could result in the direct loss of active nests or the abandonment of active nests by adult birds during that year's nesting season. Depending on the number and extent of bird nests on the site that may be disturbed or removed, the loss

of active nests of common bird species would be a potentially significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-7**, the impact would be reduced to less than significant.

(3) Special-Status Plant and Wildlife Resources

The following describes the proposed project impacts on plant and wildlife special-status resources.

(a) Special-Status Plant Species Observed On Site

Peirson's morning-glory (*Calystegia peirsonii*); CNPS List 4.2 – Individuals of a taxon belonging to the genus *Calystegia* were detected by Impact Sciences biologists within scrub communities in the southern portion of the project site in May 2008. These plants appeared to be intermediate between Peirson's morning glory and south coast morning glory (*C. macrostegia* ssp. *intermedia*) and were assigned to the species *C. peirsonii*, based on bract and leaf characteristics. The implementation of the proposed project would result in the loss of all individuals of this taxon on the site. CNPS considers this species to be of limited distribution, and fairly threatened in California; thus, it is included on the CDFG Special Plant List. Nevertheless, the City of Santa Clarita does not consider List 4 plants to be sensitive, and the taxon is considered common in the region.

Because CNPS List 4 plants are not considered by the City of Santa Clarita to meet the definition of "rare" pursuant to CEQA, and because the taxon is otherwise considered common in the region, the loss of these plants is not considered a significant impact; therefore, no mitigation is identified or required.

Slender mariposa lily (*Calochortus clavatus* ssp. *gracilis*); CNPS List 1B.2 – A population of at least 150 individuals of slender mariposa lily is present on the east and west slopes of a small hill in the southern section of the site. The implementation of the proposed project would result in the loss of this population. CNPS considers this species rare and fairly threatened in California. Because of the sensitivity status of this species, and because it would meet the definition of "rare" pursuant to CEQA, the loss of this population would be considered a significant impact, absent mitigation. With implementation of **Mitigation Measure 4.6-1**, the identified impacts to the on-site population of slender mariposa lily would be reduced to less than significant.

(b) Special-Status Plant Species Not Observed But With Potential to be Present On Site

Plummer's mariposa lily (*Calochortus plummerae*); CNPS List 1B.2 - Plummer's mariposa lily potentially may be present within habitats to be impacted by development of the proposed project. If present on site, impacts to this species would be significant absent mitigation. If discovered as part of the pre-

construction surveys, the applicant would be required to prepare a relocation plan as required by **Mitigation Measure 4.6-1**.

(c) **Oak Trees**

City of Santa Clarita Ordinance No. 89-10, as well as the Oak Tree Preservation and Protection Guidelines developed by the City, provide for the protection of oak trees within the City limits. This ordinance establishes that it shall be the policy of the City to require the preservation of healthy oak trees and that removal, cutting, pruning, relocation, damage, or encroachment into the protected zone of any oak trees measuring 6 inches or larger in circumference (measured 4.5 feet above the natural grade) on public or private property can only be done in accordance with a valid oak tree permit issued by the City. Application for the permit must include an oak tree survey, map, and report that describes the location and condition of oak trees on the site, proposed impacts, and measures to mitigate the impacts. Oak tree reports were prepared for the project site. The operative 2010 reports are summarized in this EIR and included in **Appendix 4.6** of this EIR.

The City has established requirements for the protection of oak trees that are 2 inches in diameter or greater as measured at 4.5 feet above natural grade. The City requires a permit for cutting, moving, removal, or encroachment into the protective zone (drip zone plus 5 feet) of such trees. The oak tree map found in **Appendix 4.6, Vista Canyon Oak Tree Report and Tree Appraisal, City of Santa Clarita, California** depicts the oak trees proposed to be preserved, removed, relocated and those trees that may be encroached upon by project grading. A more detailed discussion of the oak trees on the site and expected impacts to these trees is found in the 2010 oak tree reports found in **Appendix 4.6** of this EIR.

On site, the project would result in the removal of 10 (four of which are heritage size) of the 41 oak trees located on the project site. One of the non-heritage trees proposed for removal would be relocated within the project site. The request would also permit the encroachment into the protected zone of 10 oak trees. Pruning or trimming of seven of these 10 oak trees would also be permitted under the oak tree permit. A total of 31 oak trees located on the project site, including 17 heritage-sized oak trees, would not be removed by the project.

Impacts to the two oak trees located off site would differ depending upon the intersection design option selected for Lost Canyon Road/Sand Canyon Road. Under the Sand Canyon Road/Lost Canyon Road intersection design options 1-3, the requested oak tree permit would allow for encroachment into the protected zone of two oak trees. Encroachment for one tree is needed for the construction of a trail along Lost Canyon Road, east of the project site, and encroachment for the Sand Canyon Road tree is required by improvements to the intersection of Lost Canyon Road and Sand Canyon Road. Trimming or pruning

would also be permitted on the tree along Lost Canyon Road to provide for trail clearance requirements. Under the fourth intersection design option (standard signalized intersection), the heritage oak tree located along Sand Canyon Road would be removed. Removal of the tree would permit the construction of a signalized intersection conforming to all of the City's standard design criteria. Trimming of the oak tree along Lost Canyon Road would be permitted under this design option as well.

In total, the project's oak tree permit could permit the removal of up to 11 oak trees (five of which are heritage), the encroachment into the protected zone of up to 12 oak trees, including the trimming or pruning of up to eight of the 12 oak trees. Because of the sensitivity status of oak trees in the City of Santa Clarita, the removal of up to 11 oak trees, and potential adverse impacts within the protected zone of 12 oak trees is considered a significant impact, absent mitigation. With implementation of **Mitigation Measures 4.6-34** through **4.6-48**, the impact would be reduced to less than significant. In addition, the applicant intends to relocate one of the oak trees proposed for removal.

(d) Special-Status Wildlife

The potential direct impacts on special-status wildlife species present, or potentially present on the project site are discussed below in terms of the actual loss of active nests, dens, and individual animals. Impacts with respect to the loss of nesting or foraging habitat of special-status wildlife species are addressed under Vegetation Communities, above.

During construction and site preparation activities, some special-status species of high mobility such as Cooper's hawk, Southern California rufous-crowned sparrow, Lawrence's goldfinch, lark sparrow, and San Diego black-tailed jackrabbit that have been detected within habitat proposed for conversion are expected to disperse to remaining undisturbed habitats on site, or immediately adjacent off site. However, construction and site preparation activities could result in the direct loss of active bird nests, including eggs, young, or incubating adults, and a variety of other less mobile special-status species, including Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, western spadefoot, silvery legless lizard, coastal western whiptail, rosy boa, San Diego banded gecko, San Bernardino ringneck snake, coast horned lizard, coast patch-nosed snake, burrowing owl, horned lark, pallid bat, western mastiff bat, western red bat, western yellow bat, western small-footed myotis, long-eared myotis, fringed myotis, cave myotis, yuma myotis, San Diego desert woodrat, southern grasshopper mouse, and American badger.

Santa Ana sucker, unarmored threespine stickleback, arroyo chub, western spadefoot, and burrowing owl are dependant on habitat attributes that are naturally rare or declining in the region (e.g., clean surface water that is present seasonally or free of non-native predators, and adequate burrow sites), and

local populations of these species are subsequently limited so that their loss from the project site would negatively affect the sustainability of their local populations.

Depending on the number and extent of individuals of other special-status species or their denning or nesting sites on the site that may be disturbed or removed through project implementation, their loss would be considered a substantial effect on these special-status species and, therefore, a significant impact, absent mitigation. Mitigation measures to minimize direct mortality of individual animals and their nesting or denning sites during the construction phase of the project are described in the mitigation measures below under **Mitigation Measures 4.6-2** through **4.6-7**.

(4) Wildlife Movement Corridors

The project reach of the Santa Clara River is dry, except for infrequent storms in the winter months. In addition, the project's proposed development would preserve, restore, and enhance the River Corridor within the project reach. As a result, the proposed project would not interfere with the movement of any native or migratory fish or semi-aquatic species.

Based on the *Species Movement Report, 2009*, wildlife movement within the project reach of the River Corridor can occur east or west along the river, and the value of the river is clear; species can move the entire length of the river and some terrestrial species would only be precluded from doing so during infrequent major storm events. The project proposes to maintain, restore, and enhance the River Corridor within through the project site; and, therefore, the existing east-west River Corridor wildlife movement area would not be significantly impacted due to project implementation. (See also **Section 4.20, Santa Clara River Corridor Analysis**, of this EIR.)

The *Species Movement Report, 2009*, also evaluated the need for a north-south species movement corridor through the site. Based on that evaluation, from the project site, species are not expected to move north because the Lost Canyon Road SR-14 Underpass is a significant constraint. If open space is to be set aside for north-south movement between the Santa Clara River and the Angeles Forest within the project site, the open space should be located on the east side of the project site, east of the commercial horse ranch. This area is wider and has more cover than the west side of the commercial horse ranch; it is currently utilized by certain common species.

The proposed project includes Oak Park, which is to be located near the east side of the project site. This proposed park could accommodate north/south animal movement if designed appropriately. The Oak Park should be aligned with the open area between the horse ranch and Sand Canyon; with a minimum corridor width of approximately 300 to 400 feet that would accommodate movement of common, expected species documented on site. While the preclusion of a northerly movement corridor within the

project is not considered a significant impact, primarily due to constraints associated with the project site being surrounded by existing and potential future development, the *Species Movement Report, 2009*, indicates that an approximate 300 to 400-foot-wide northerly movement corridor along the east side of the project site could provide for north-south movement of species.

d. Indirect Impacts

Indirect impacts on biological resources would occur within River Corridor habitat areas after completion of the proposed project. It is expected that implementation of the proposed project would result in indirect impacts to biological resources in the following ways:

- Increased human and domestic animal presence in the River Corridor area and noise associated with this presence;
- Increase in populations of non-native plant and animal species;
- Increased light and glare;
- Stormwater runoff; and
- Construction activities.

Indirect impacts associated with the proposed project are not quantifiable but are reasonably foreseeable. As such, the discussion that follows identifies the types of indirect impacts and their relative magnitude so that decision makers and the general public are aware of the indirect impact potential associated with implementation of the proposed project.

(1) Increased Human and Domestic Animal Presence

Implementation of the proposed project would increase human and domestic animal presence in the River Corridor area. Increased recreational and other human activity around sensitive habitats within the River Corridor could displace a number of wildlife species, increase the amount of refuse and pollutants, compact soils, and trample ground-dwelling flora and fauna.

Off-road vehicle/bike use in the River Corridor also can be expected to increase in proportion to population increases in the area. With no physical constraints in place to contain people, pets, and equestrians on designated trails or to exclude off-road vehicles/bikes, additional recreational use increases the likelihood of intrusion into sensitive habitat areas, trampling of habitats, noise disturbances to wildlife (especially if within the breeding season of birds and raptors), which can result in nest abandonment, and introduction of non-native plant species. Depending upon the season and location, this additional use also can cause increased erosion, siltation, and disruption of the hydrologic regime of

the Santa Clara River, possibly resulting in disturbance of downstream breeding ponds for special-status fish species. Wildlife using the riparian ecosystem as movement corridors also may be disturbed and inadvertently flushed from hiding places, causing animals to avoid the area and potentially decrease use of the area as a movement corridor.

Increased occupancy of the project site by domestic animals can disturb nesting or roosting sites and disrupt the normal foraging activities of wildlife in adjacent habitat areas. Should this activity occur frequently, and over a long period of time, these disturbances may have a long-term effect on the behavior of both common and special-status animals and can result in their extirpation from the area. Feral and pet domestic cats can cause substantial damage to the species composition of natural areas through predation, including populations of special-status species. Increased urban edge effect can lead to higher numbers of cowbirds adjacent to and within riparian areas, leading to higher levels of nest parasitism of songbirds including common and sensitive bird species.

While it is acknowledged that the Santa Clara River already receives a certain amount of existing equestrian and off-road vehicle use, as well as domestic animal use, an increase in these uses as a result of project implementation, taken together, could substantially effect the quality of these areas as wildlife habitat, would potentially interfere with the movement of wildlife, and would potentially reduce the population of wildlife species, including special-status bird and wildlife species. Therefore, the increased use of the River Corridor by humans and domestic animals is considered a potentially significant impact, absent mitigation. With implementation of **Mitigation Measures 4.6-8** (signage), **4.6-9** (protective fencing), **4.6-10** (access limitations), **4.6-11** (prohibitions), and **4.6-12** (interpretative signage), the identified impacts would be reduced to less than significant.

(2) Increase in Populations of Non-Native Species

After project completion, a number of non-native plant and wildlife species (e.g., tamarisk, giant cane, salt cedar, Argentine ants, European starlings, house sparrows, red foxes, etc.) that are more adapted to urban environments are expected to increase in population and potentially displace native species because of their ability to compete more effectively for resources. Non-native invasive plant species tend to be more adaptable to urban settings and adjacent open space areas and can out-compete native plants for available resources. Because of the adjacency of the project site to existing residential development and unauthorized disturbances, the site currently supports existing populations of non-native species on site. However, due to the presence on site of special-status species, notably coast horned lizard, the proposed project may substantially increase the on-site population of non-native plants and wildlife in the remaining open spaces in the project site area to the detriment of their primary prey, native ants. Therefore, impacts on the remaining natural areas as a result of potential increases in non-native plants

and wildlife resulting from project implementation are potentially significant, absent mitigation. With implementation of Mitigation Measures 4.6-13 (restoration specialist oversight of planting), 4.6-14 (weed control), and 4.6-15 (waste/recycling receptacles), the identified impacts would be reduced to less than significant.

(3) Increased Light and Glare

The development of a residential/mixed-use community would increase the number of nighttime light and glare sources on the project site over current levels. Nighttime illumination is known to adversely affect some species of animals in natural areas. Nighttime light can disturb breeding and foraging behavior and can potentially alter breeding cycles of birds, mammals, and nocturnal invertebrates. Light could deter some animal species, especially the larger mammals, from using the Santa Clara River as a wildlife movement corridor. If uncontrolled, such light could adversely impact the composition and behavior of the animal species that occur in these areas. Because of the potential disruption to breeding and foraging behavior of wildlife species remaining on, adjacent to, and in proximity to the project site, increased nighttime lighting and glare is considered a potentially significant impact, absent mitigation. With implementation of Mitigation Measure 4.6-16 (light and glare restrictions), the identified impacts would be reduced to less than significant.

(4) Stormwater Runoff

Excessive irrigation of landscaped areas, especially when combined with the use of chemicals, could lead to runoff that contains pesticides, herbicides, nitrates, and other contaminants. Any runoff that flows into the River Corridor that contains high levels of nutrients, particularly fertilizers and waste products such as nitrogen and phosphorous, can result in eutrophication (excessive nutrient availability and resultant alterations in oxygen availability and other adverse water quality effects) during infrequent periods when flow is present in the River Corridor. This in turn may favor the population growth of non-native invasive species to the detriment of native species populations.

Paved surfaces also could contribute runoff into the River Corridor during infrequent storm events. Depending on the magnitude and frequency of storm events and the overall level of the water quality, this runoff can cause increased eutrophication, long-term buildup of toxic compounds and heavy metals, and other adverse effects to biological resources associated with aquatic systems.

Since the use of chemicals and the extent of excessive irrigation for landscaping within common and residential areas cannot be determined prior to project implementation, impacts related to stormwater and irrigation runoff could substantially affect special-status species potentially present downstream from the project site, substantially diminish habitat for fish, wildlife, or plants, and substantially degrade

the quality of the environment. Therefore, these impacts are considered potentially significant, absent mitigation.

The project design features (PDFs) for surface water quality and hydrologic impacts include site design, source control, treatment control, and hydromodification control best management practices (BMPs) that would be incorporated into the project and are considered a part of the project for impact analysis. Effective management of wet and dry weather runoff water quality begins with limiting increases in runoff pollutants and flows at the source. Site design and source control BMPs are practices designed to minimize surface runoff and the introduction of pollutants into runoff. Treatment control BMPs are designed to remove pollutants once they have been mobilized by rainfall and runoff. Hydromodification control BMPs are designed to control increases in post-development runoff flows and/or volumes. In addition, these PDFs will allow compliance with the standard urban stormwater mitigation plan requirements and implement the project low impact develop BMPs. These features would reduce the project impacts to water quality to less than significant. Details of the project design features are provided in this EIR, **Section 4.8.1, Water Quality**. Thus, no further mitigation is required.

(5) Construction Activities

Construction and grading activities associated with project implementation that are proposed adjacent to or within the River Corridor could adversely affect sensitive vegetation and wildlife within portions of the ecosystem not directly affected and are depicted in **Figure 4.6-5, Site Vegetation Types-Grading Impacts**. These activities can result in the following impacts:

- Displacement and disturbance of certain species of wildlife from noise and human activity that could result in possible nest or den abandonment during the breeding season of both common and special-status species;
- Siltation and erosion into creek and river drainages that could adversely affect fish spawning and movement;
- Excessive dust accumulation on vegetation that could result in the degradation or loss of some plant species; and
- Soil compaction around remaining trees.

Because these activities could substantially degrade biological resources within the ecosystem and possibly reduce the number of special-status species, these impacts, while temporary, are considered potentially significant, absent mitigation. With implementation of **Mitigation Measures 4.6-17 through 4.6-33**, below, the identified impacts would be reduced to less than significant.

5. MITIGATION MEASURES ALREADY INCORPORATED INTO THE PROJECT

The proposed project has not incorporated any mitigation measures into its design.

6. MITIGATION MEASURES RECOMMENDED BY THIS EIR

The following discussion describes measures proposed to avoid, minimize, or reduce significant or potentially significant impacts on sensitive biological resources within the project site and its vicinity. These measures, if successfully implemented, would reduce the degree of these impacts to less than significant. The mitigation measures are designed to ensure compliance with state and federal statutes and regulations regarding special-status plant and animal species.

a. Sensitive Vegetation Types, Wildlife Habitat, and Special Status Plant Species

4.6-1 The applicant shall mitigate for alkali rye at a ratio of 0.5:1 through on-site habitat restoration. Prior to the issuance of a grading permit for the project, the applicant shall provide to the City Community Development Department for review and approval a detailed mitigation and monitoring plan for the restoration of alkali rye. The mitigation plan shall encompass comparable general habitat attributes and acreage of useable wildlife habitat on the subject property (approximately 0.35 acre), and include documentation to monitor the success of the restoration through performance standards over a five-year period. The proposed mitigation site would be in natural areas within or adjacent to the Oak Park or other suitable open space areas within the project site.

The applicant shall implement the *Lily Plan, 2009*, that includes salvaging and re-establishment of slender mariposa population on the mitigation site designated in the plan.

If discovered during pre-construction surveys, the applicant shall prepare and implement a Plummer's mariposa lily mitigation plan that would include salvaging and re-establishment of Plummer's mariposa population on an on-site mitigation site designated in the plan.

4.6-2 The applicant shall mitigate for the loss of riparian scrub and big sagebrush scrub through implementation of the *Wetlands Plan, 2009* to the satisfaction of the City's Community Development Department.

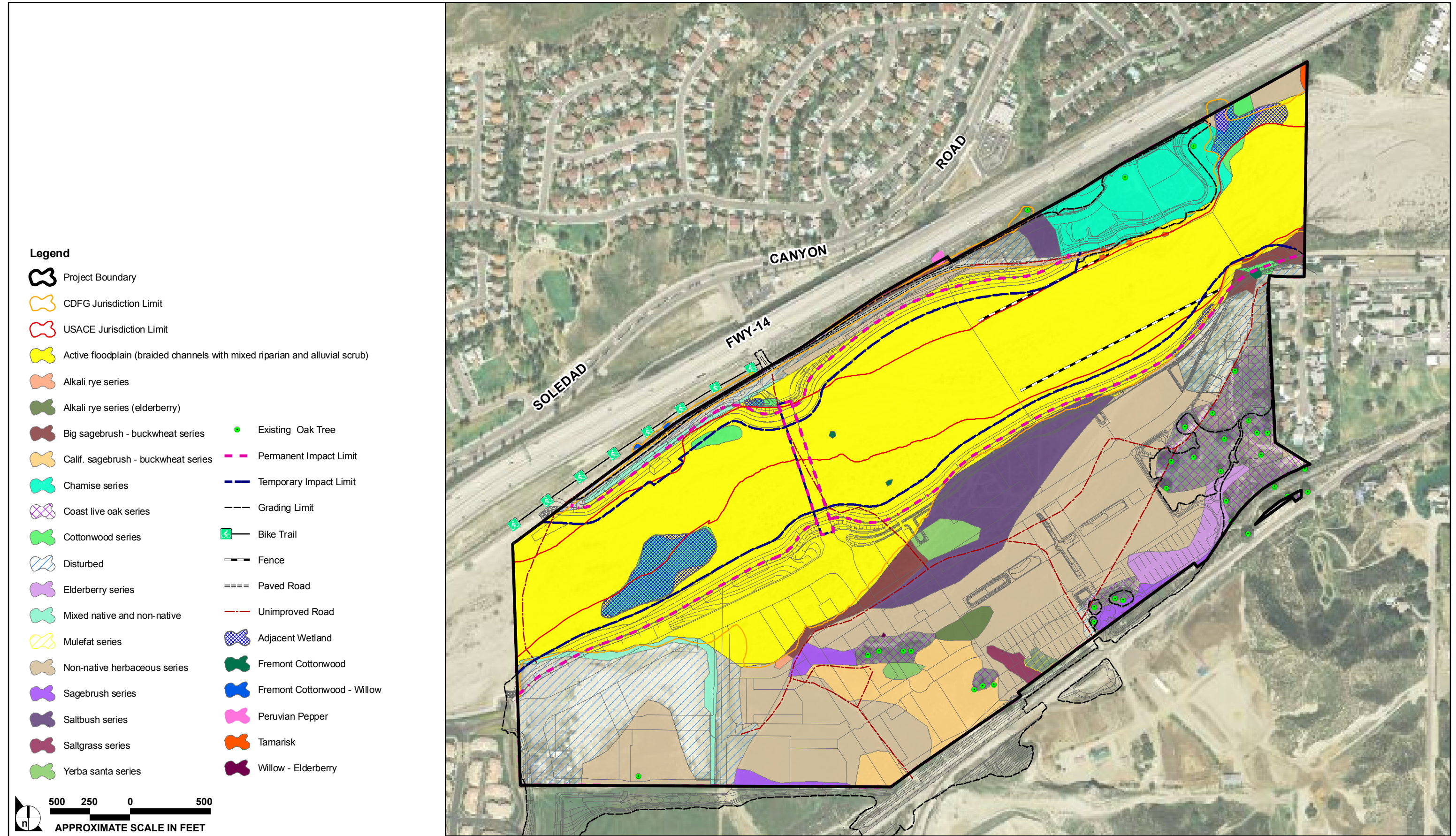


FIGURE 4.6-5

Site Vegetation Types – Grading Impacts

b. Special-Status Wildlife

(1) Special-Status Fish Species

4.6-3 All stream flows traversing a construction site or temporary access road shall be diverted around the site and under access roads (using a temporary culverts or crossings that allow fish passage). A temporary diversion channel shall be constructed using the least damaging method possible, such as blading a narrow pilot channel through an open sandy river bottom. The removal of wetland and riparian vegetation to construct the channel shall be avoided to the greatest extent possible. The temporary channel shall be connected to a natural channel downstream of the construction site prior to diverting the stream. The integrity of the channel and diversion shall be maintained throughout the construction period. The original stream channel alignment shall be restored after construction, provided suitable conditions are present at the work site after construction. Any temporary stream diversion plan shall be consistent with the USACE and CDFG permits required for project implementation.

4.6-4 A qualified biologist shall be present when any stream diversion takes place, and shall patrol the areas both within, upstream, and downstream of the stream diversion work area. Under no circumstances shall the unarmored threespine stickleback be collected or relocated, unless USFWS personnel or their agents implement this measure or authorized by USACE in a subsequent Clean Water Act section 404 permit or streambed alteration agreement issued by CDFG.

(2) Special-Status Amphibian Species

4.6-5 Prior to issuance of a grading permit, the applicant shall employ a qualified biologist to implement the *Spadefoot Plan, 2009*, with review and oversight provided by the City Planning Department.

(3) Special-Status Reptiles and Mammals

4.6-6 Thirty days prior to grading activities, a qualified biologist shall conduct a survey within appropriate habitat areas to capture and relocate individual silvery legless lizard, coastal western whiptail, rosy boa, San Diego banded gecko, San Bernardino ringneck snake, coast horned lizard, coast patch-nosed snake, and San Diego black-tailed jackrabbit in order to avoid or minimize take of these sensitive species. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. Results of the surveys and relocation efforts shall be provided to the City with a copy to CDFG. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

c. Common and Special-Status Bird Nests

4.6-7 Beginning 30 or more days prior to the removal of any suitable riparian habitat that will occur during the riparian bird breeding and nesting season of March 15th through September 1st, the applicant shall arrange for weekly bird surveys to detect the above riparian bird species in the habitats to be removed, and any other such habitat within 300

feet of the construction work areas. The surveys shall be conducted by a qualified biologist using CDFG or USFWS survey protocols. The surveys shall continue on a weekly basis, with the last survey being conducted no more than seven days prior to the initiation of construction work.

If an active nest is found, clearing and construction within 300 feet of the nest shall be postponed until the nest is vacated and juveniles have fledged, and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest site shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the ecological sensitivity of the area.

Results of the surveys, including surveys to locate nests, shall be provided to the USACE and CDFG. The results shall include a description of any nests located and measures to be implemented to avoid nest sites.

d. Indirect impacts

(1) Increased Human and Domestic Animal Presence

4.6-8 Signage shall be installed along the River Corridor indicating that no pets of any kind are allowed within the preserved River Corridor.

4.6-9 Fencing of sufficient height and design (i.e., ranch-rail) shall be constructed between the edge of developed areas and the River Corridor to deter humans and pets from entering habitat areas within the River Corridor.

Locally indigenous native shrubs shall be planted along the fence to further deter access. Final fence design shall be approved by the City Planning Department. Fencing shall not be placed within the USACE or CDFG jurisdictional areas of the site.

The potentially palette of local indigenous native plant species to be used along the fence include the following, observed on site during the course of biological surveys: California juniper, blue elderberry, four-wing saltbush, quailbush, skunk bush, California sagebrush, Great Basin sagebrush, coyote bush, mulefat, white-stem rabbitbrush, thick-leaf yerba santa, bladderpod, cane cholla, coastal prickly pear, coast live oak, golden currant, chaparral currant, black sage, western sycamore, California buckwheat, thick-leaf ceanothus, wedgeleaf ceanothus, chamise, Fremont's cottonwood, Gooding's willow, arroyo willow, and Whipple's yucca.

4.6-10 Human access into the River Corridor shall only occur in designated locations (i.e., existing and future trails). All motorized vehicles and off-trail bike riding shall be prohibited from entering the preserved River Corridor with the exception of authorized emergency or maintenance vehicles, and signs shall be posted along the River Corridor prohibiting such uses.

4.6-11 Prohibitions against human, domestic animal, and motorized vehicle/bike entry into the River Corridor shall be established by ordinance or recorded CC&Rs.

4.6-12 Interpretative signs shall be constructed and placed in appropriate areas, as determined by a qualified biologist, that explain the sensitivity of natural habitats and the need to minimize impacts on these natural areas. The signs will state that the River Corridor is a protected natural area and that all pedestrians must remain on designated trails, all pets are to be restrained on a leash, and that it is illegal to harm, remove, or collect native plants and animals. The project applicant shall be responsible for installation of interpretive signs and fencing along the River Corridor.

(2) Increase in Populations of Non-Native Plant and Animal Species

4.6-13 A qualified restoration specialist shall ensure that the proposed landscape plants will not naturalize and cause maintenance or vegetation community degradation in open-space areas of the project site. Container plants to be installed within public areas shall be inspected by a qualified restoration specialist for the presence of disease, weeds, and pests, including Argentine ants. Plants with pests, weeds, or diseases shall be rejected. In addition, landscape plants shall not be on the Cal-IPC California Invasive Plant Inventory (<http://www.cal-ipc.org/ip/inventory/index.php>). Except as required for fuel modification, irrigation of perimeter landscaping adjacent to the River Corridor with native plant communities shall be limited to temporary irrigation (i.e., until plants become established).

4.6-14 The applicant shall be responsible for weeding all restoration/enhancement sites to prevent an infestation of perennial non-native invasive weeds. All perennial, non-native invasive weed species (e.g., arundo, pampas grass, fennel, perennial pepperweed, castor bean, tamarisk, etc.) shall be controlled for a period of five years after the initial vegetation community restoration, or until the five-year success criteria described in the *Wetlands Plan, 2009*, are met. The cover of annual, non-native plant species at the mitigation sites shall not exceed the requirements of the *Wetlands Plan, 2009*, at any time during the period of documenting successful restoration.

4.6-15 Waste and recycling receptacles that discourage foraging by wildlife species adapted to urban environments shall be installed in common areas and parks throughout the project site.

(3) Lighting and Glare

4.6-16 All bridge, street, residential, and parking lot lighting shall be downcast luminaries or directional lighting with light patterns directed away from the River Corridor. CC&Rs shall require that exterior lighting within the residential areas adjacent to the River Corridor be limited to low luminosity.

(4) Construction Activities

4.6-17 The following guidelines shall be followed to minimize impacts on remaining biological resources on site as a result of construction and grading activities and to ensure that potential impacts on these resources will remain less than significant:

A qualified biologist shall be retained as a construction monitor to ensure that incidental construction impacts on biological resources are avoided, or minimized, and to conduct pre-grading field surveys for special-status plant and wildlife species that may be destroyed as a result of construction or site preparation activities. Responsibilities of the construction monitor include the following:

- The construction monitor shall attend pre-grade meetings to ensure that timing/location of construction activities do not conflict with mitigation requirements (e.g., seasonal surveys for plants and wildlife).
- Mark/flag the construction area in the field with the contractor in accordance with the final approved grading plan. Haul roads and access roads shall only be sited within the grading areas analyzed in the project EIR.
- Supervise cordoning of preserved natural areas that lie outside grading areas identified in the project EIR (e.g., with temporary fence posts and colored rope).
- Conduct a field review of the staking (to be set by the surveyor) designating the limits of all construction activity. Any construction activity areas immediately adjacent to riparian areas or other special-status resources may be flagged or temporarily fenced by the monitor, at his/her discretion.
- Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas. The monitor should also discuss procedures for minimizing harm or harassment of wildlife encountered during construction.
- Periodically visit the site during construction to coordinate and monitor compliance with the above provisions.

4.6-18 Construction personnel shall be prohibited from entry into areas outside the designated construction area, except for necessary construction related activities, such as surveying. All such construction activities shall be coordinated with the construction monitor.

4.6-19 Construction activities shall be limited to the following areas of temporary disturbance:

- An 85-foot-wide zone that extends into the river from the base of the rip-rap or gunite bank protection where it intercepts the river bottom;
- 100 feet on either side of the outer edge of the Vista Canyon Road bridge and the haul route (located within bridge zone);
- 50-foot-wide corridor for all utility lines; and
- 20-foot-wide temporary access ramps and roads to reach construction sites.

The locations of these temporary construction sites and the routes of all access roads within CDFG or USACE jurisdiction shall be shown on maps submitted to the CDFG and USACE. Any variation from these limits shall be noted, with a justification for a

variation. The construction plans should indicate what type of vegetation, if any, would be temporarily disturbed, and the post-construction activities to facilitate natural revegetation of the temporarily disturbed areas. The boundaries of the construction site and any temporary access roads within the riverbed shall be marked in the field with stakes and flagging. No construction activities, vehicular access, equipment storage, stockpiling, or significant human intrusion shall occur outside the work area and access roads.

4.6-20 Equipment shall not be operated in areas of ponded or flowing water within CDFG or USACE jurisdiction unless there are no practicable alternative methods to accomplish the construction work, and only after prior approval by the CDFG and the USACE. Approval shall be acquired by submitting a request to CDFG and USACE no later than 30 days prior to construction. The request must contain a biological evaluation demonstrating that no sensitive fish, amphibians, or reptiles are currently present, or likely to be present during construction, at the construction site or along access roads.

4.6-21 Temporary sediment retention ponds shall be constructed downstream of construction sites that are located in River Corridor under the following circumstances:

- The construction site contains flowing or ponded water that drains off site into the undisturbed streamflow or ponds; or
- Streamflow is diverted around the construction site, but the work is occurring in the period November 1st through April 15th when storm flows could inundate the construction site.

The sediment ponds shall be constructed of riverbed material and shall prevent sediment-laden water from reaching undisturbed ponds or streamflows. To the extent possible, ponds shall be located in barren or sandy river bottom areas devoid of existing riparian scrub, riparian woodland, or aquatic habitat. The ponds shall be maintained and repaired after flooding events, and shall be restored to pre-construction grades and substrate conditions within 30 days after construction has ended at that particular site. The location and design of sediment retention ponds shall be included in the Storm Water Pollution Prevention Plan (SWPPP) prepared by the applicant for all construction activities that require a NPDES General Construction Activity Storm Water Permit.

4.6-22 Installation of bridges, culverts, or other structures shall not impair movement of fish and aquatic life. Bottoms of temporary culverts shall be placed at or below channel grade. Bottoms of permanent culverts shall be placed below channel grade.

4.6-23 Water containing mud, silt, or other pollutants from construction activities shall not be allowed to enter a flowing stream or be placed in locations that may be subject to normal storm flows during periods when storm flows can reasonably be expected to occur.

4.6-24 Vehicles shall not be driven or equipment operated in areas of ponded or flowing water, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the CWA section 404 permit or CDFG 1603 agreement.

- 4.6-25 Silt settling basins, installed during the construction process, shall be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.
- 4.6-26 If a stream channel has been altered during the construction or maintenance operations, its low flow channel shall be returned as nearly as possible to pre-project topographic conditions without creating a possible future bank erosion problem, or a flat wide channel or sluice like area.
- 4.6-27 Temporary structures and associated materials not designed to withstand strong seasonal flows shall be removed to areas above the high water mark before such flows occur.
- 4.6-28 Staging and storage areas for construction equipment and materials shall be located outside of the CDFG or USACE jurisdiction.
- 4.6-29 Any equipment or vehicles driven or operated within or adjacent to the River Corridor shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life.
- 4.6-30 Stationary equipment such as motors, pumps, generators, and welders which may be located within the River Corridor construction zone shall be positioned over drip pans. No fuel storage tanks shall be allowed in the River Corridor.
- 4.6-31 The applicant shall use best efforts to ensure that no debris, bark, slash sawdust, rubbish, cement or concrete or washing thereof, oil, petroleum products, or other organic material from any construction, or associated activity of whatever nature, shall be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, watercourses included in the permit. When construction operations are completed, any excess materials or debris shall be removed from the work area.
- 4.6-32 No equipment maintenance shall be done within or near the River Corridor where petroleum products or other pollutants from the equipment may enter this area.
- 4.6-33 As the project reach of the Santa Clara River typically has no surface flows, any water diversions shall utilize
- Pilot channels constructed to divert flows around work areas shall be sized to maintain existing water velocities, with wide, shallow channels being utilized. The channel should be kept as small as possible, extending no more than 25 feet upstream and downstream of the work area. Construction of pilot channels should start downstream. Once water is diverted into the new channel, the original channel should be visually inspected and any stranded animals shall be removed and returned to the water downstream of the diversion. Once the diversion is no longer needed, the area shall be restored as closely as possible to its original configuration.
 - The use of a pump to divert flows around a work site is also acceptable. The pump must have at least a 0.25-inch screen. Water should be discharged downstream, within 25 feet of the work area. Any dams installed across flowing water for the

diversion shall be removed upon completion of construction and the area shall be restored as closely as possible to its original configuration.

- The Operator shall alert the USACE and the Department of work to be performed at least two weeks in advance of the work. If the work may adversely impact Endangered species, the USACE, the Department, and the City shall meet in the field to resolve the issue. The City may contact the USACE and the Department to identify areas of potential Endangered species habitat. If the USACE and the Department believe the work may adversely impact Endangered species or its habitat resources or the City wishes to consult with the USACE and the Department, a field meeting will be scheduled. At the field meeting, the USACE and the Department will provide information regarding Endangered or Threatened species that could be impacted by the project. If take of an Endangered species will occur, the appropriate Endangered species permits will be required. To the extent that a USFWS Section 7 and a CDFG Section 2081 Memorandum of Agreement have been completed for the species present, the mitigation measures shall be implemented and construction may proceed as outlined in these documents.
- Standard dust control measures shall be implemented to reduce impacts on nearby plants and wildlife. This includes replacing ground cover in disturbed areas as quickly as possible; watering active sites at least twice daily; suspending all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph; and restricting traffic speeds on all unpaved roads to 15 mph or less in areas within 200 feet of vegetation.
- Upon completion of construction, the contractor shall be held responsible to restore any haul roads and access roads that are outside of approved grading limits. This restoration shall be done in consultation with the construction monitor.

e. Oak Trees

4.6-34 If the Oak Tree Permit is approved by the City Council, the applicant shall have permission to remove the following oak trees on the project site (Heritage Trees are in bold): No. 4, **No. 25**, No. 26, **No. 27**, No. 28, **No. 29**, No. 30, No. 31, No. 32, and **No. 54**.

If approved by the City Council, the applicant shall have permission to encroach into the protected zone of the following oak trees (Heritage Trees are shown in bold): No. 1, **No. 3**, No. 33, **No. 34**, **No. 38**, **No. 47**, No. 50, **No. 52**, **No. 53**, and No. 71. If approved by the City Council, the applicant shall have permission to trim livewood in excess of 2 inches in diameter of the following trees: No. 1, No. 3, No. 33, No. 34, No. 38, No. 52, and No. 53.

If approved by the City Council, the applicant shall have permission to remove the following off-site oak trees (Heritage Trees shown in bold):

Tree No. 25B (Lost Canyon Road/Sand Canyon Road Option 4 Only)

If approved by the City Council, the applicant shall have permission to encroach within the protected zone of the following off-site oak trees (Heritage Trees shown in bold):

Tree No. 25B (Lost Canyon Road/Sand Canyon Road Options 1-3 – encroachment and trimming)

Tree No. 45 (Lost Canyon Road/Sand Canyon Road Options 1-4 – encroachment and trimming)

4.6-35 The applicant and all their contractors shall be in compliance with the City of Santa Clarita Oak Tree Ordinance and Preservation and Protection Guidelines at all times throughout the project. Failure to comply with these requirements shall be considered non compliant and may result in the issuance of a Stop All Work notice, construction delays and additional fees.

4.6-36 The applicant and all their contractors shall adhere to all recommendations issued by the applicant's Arborist of Record (AOR) both during on-site monitoring as well as those listed within the project's oak tree reports and addendums. Failure to comply with these recommendations shall be considered non compliant and may result in the issuance of a Stop All Work notice, construction delays and additional fees.

4.6-37 Mitigation for the oak tree impacts referenced above shall include dedication to the City of Santa Clarita of the 2-acre oak tree preserve located adjacent to the Oak Park. Dedication of this 2-acre property to the City shall occur in conjunction with dedication of the Oak Park. A deed restriction shall be recorded over this 2-acre preserve restricting its use to open space only and prohibiting any future development or grading. Signage shall be posted along the trail adjacent to the preserve indicating that this area is an oak tree preserve/mitigation area.

Additionally, the applicant shall be required to plant mitigation oak trees on this 2-acre parcel as well as a portion of the Town Green parcel to the satisfaction of the Director of Community Development. The oak preserve and Town Green shall be the primary oak mitigation areas for the project. Secondary oak tree mitigation or planting areas shall include trail corridors throughout the project site. Group plantings of native oaks are encouraged in areas that will accommodate the trees for future growth. Examples are passive parks, break areas, open landscape areas, new trails, and the entrance to commercial and residential portions of the project.

The planting of on-site mitigation oak trees referenced above shall be equal to or exceed the International Society of Arboriculture (ISA) dollar value of all oak trees proposed for removal, presently estimated at \$404,990 (includes the 10 oak trees on-site and the one potential oak tree off-site). Prior to the issuance of grading permits and the start of any construction, the applicant shall be required to bond for the International Society of Arboriculture (ISA) dollar value of all oak trees proposed for removal.

4.6-38 Prior to the issuance of grading permits and the start of any construction, the applicant shall have all required protective fencing installed around the oak trees. Oak trees that are proposed for encroachment shall have the protective fence placed at the furthest point away from the trunk that will allow for the necessary construction. All remaining oak trees shall have the fence installed at the protected zone located 5 feet out from edge of dripline.

- 4.6-39 Protective fencing shall consist of 5 foot standard chain link material supported by steel post driven directly into the ground and evenly spaced at 8 feet on center. 36 inch silt fencing shall be installed at the base of all protective fencing and be maintained in good repair throughout all phases of construction.
- 4.6-40 A maximum of one non-gated 3 foot-wide opening shall be left open on the opposite side of construction to allow for required monitoring by City staff and the applicant's Arborist of Record. Openings shall be spaced every 100 feet or at a rate of one per tree.
- 4.6-41 The applicant shall be required to install proper signage that reads "THIS FENCE IS FOR THE PROTECTION OF OAK TREES AND SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION BY THE CITY ARBORIST."
- 4.6-42 The applicant shall be required to submit a copy of all future site plans including but not limited to grading plans, street improvement plans, construction plans and landscape plans to the City of Santa Clarita Oak Tree Specialist. All site plans shall require written approval from the City's Urban Forestry Division.
- 4.6-43 Any oak tree approved for relocation (presently Tree No. 31 is proposed for relocation) shall be completed by an approved qualified tree relocating company.
- 4.6-44 Any oak tree proposed for relocation shall be considered a removal. Any oak tree that has been approved for relocation shall require an up to 90 day side box waiting period before bottom roots may be removed. The final waiting period shall be established by the Arborist of Record and the City's Oak Tree Specialist.
- 4.6-45 Any oak tree which has been approved for relocation shall require a minimum five year mitigation period, which shall include the submittal of all maintenance and monitoring records completed on the tree. Monitoring reports shall be submitted at the end of each month for the first two years, quarterly (four times per year) for the following two years and biannually for the final year. The bond (based upon a value equivalent to the oak tree's ISA value) for the relocated tree will not be exonerated until the completion of the required mitigation period.
- 4.6-46 The applicant shall be required to incorporate large scale trees, which include 48 inch and 60 inch box trees into its mitigation plan. This may also include the installation of specimen size trees that range from 72 inch box in size up to 84 inch box trees.
- 4.6-47 Mitigation oak trees may include the following native species of oak; Coast live oak (*Quercus agrifolia*), or Canyon oak (*Quercus chrysolepis*). Incorporating additional native species in areas immediately adjacent to where established oak trees are present, may have a negative impact on the existing oak trees and is not permitted.
- 4.6-48 The applicant shall comply with all additional requirements of the project's adopted oak tree permit.

6. CUMULATIVE IMPACTS

Buildout of the Vista Canyon project would permanently convert acreage from a mostly undeveloped and highly disturbed property to that of an urban environment. Cumulative impacts related to development of the project site would include reducing total vegetation and wildlife habitat area and open area in the Santa Clarita Valley region.

Construction and operation of uses developed on site would directly impact wildlife on and near the Vista Canyon project site. Within the planned development areas, species of low mobility would be lost during site preparation. Conversion of existing undeveloped land to developed uses consisting of structures and landscaping would eliminate some natural vegetation communities on developed portions of the project site and result in a reduction in native wildlife species diversity. Buildout of uses within the project site also would limit the local movement of wildlife species that currently make use of areas proposed for development.

Other related “cumulative” projects besides the Vista Canyon project are described below. Where the potential impacts are known, the impacts likely to be associated with these projects are first identified. The potential for these impacts to combine with similar impacts due to the proposed project is also evaluated. This list of projects is not intended to include all projects that exist in the project region. Instead, the analysis focuses on those projects that support or would potentially affect similar vegetation communities, jurisdictional resources, and special-status plant and animal species that occur on the Vista Canyon project site. The analysis also focuses on those related projects that would likely be constructed during the same time frame as Vista Canyon. Those projects that also are adjacent to or that otherwise may affect resources associated with the Santa Clara River were included.

a. Cumulative Impact Analysis Study Area

Under the *State CEQA Guidelines* (Cal. Code Regs., tit. 14, § 15130, subd. (b)(3)), the lead agency should provide a reasonable explanation of the geographic limitation used in the cumulative impacts analysis. In addition, the “discussion of cumulative impacts must reflect the severity of the impacts and their likelihood of occurrence, but, the discussion need not provide as great detail as is provided for the effects attributable to the project alone.” (Cal. Code Reg. tit. 14, § 15130, subd. (b)) As permitted under section 15130, subdivisions (b)(1)(A) and (B), there are two methods for adequately discussing significant cumulative impacts of a project in combination with other cumulative projects. The two methods are: “(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, ... which described or evaluated

regional or area wide conditions contributing to the cumulative impact.” (Cal. Code Reg. tit. 14, § 15130, subds. (b)(1)(A) and (B).)

This EIR has used a combination of both the “list” and the “plan” methods of discussing significant cumulative impacts associated with the proposed project. The “list” method has focused on related cumulative projects within both the City of Santa Clarita and the unincorporated area of the County of Los Angeles. This area is considered reasonable for a project the size of Vista Canyon because it encompasses a geographic area that includes both incorporated and unincorporated areas within 12 miles of the project. This area is considered reasonably broad to encompass cumulative development within the overall project vicinity.

In addition, because the list approach provides project-specific location, size, and acreage data, but does not necessarily specify the cumulative project impacts to sensitive biological resources, this EIR has relied on a watershed plan that has assessed the cumulative impacts of development on biological resources, as well as ecological functions and processes, within the Santa Clara River Watershed (“SCRW” or “watershed”). Specifically, this EIR’s cumulative impacts assessment has utilized the *Santa Clara River Watershed Study* (*Watershed Study* or Dudek 2007), as copy of which is provided in **Appendix 4.4** of this Draft EIR. The *Watershed Study* utilized more extensive lists of past, present, and reasonably foreseeable cumulative projects within the SCRW than is shown on the lists of City/County projects cited in this EIR. As a result, the *Watershed Study* is necessarily a broader cumulative impacts assessment on biological resources in both the project vicinity and the region.

b. Cumulative Projects

(1) City of Santa Clarita Cumulative Projects

Table 4.6-6 contains the list of cumulative projects within the City of Santa Clarita relative to the project site. As with the County list below, the cumulative projects that fall in a geographic area within 12 miles of the vicinity of the Vista Canyon proposed project.

(2) Unincorporated Los Angeles County Cumulative Projects

Table 4.6-7 contains the list of cumulative projects within the Los Angeles County relative to the project site. Cumulative projects in a geographic area within 12 miles of the Vista Canyon project vicinity are shown in this table.

**Table 4.6-6
City of Santa Clarita Cumulative Projects**

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹		Status
Residential/Mixed Use Projects						
Golden Valley Ranch (TR 52414)	Newly annexed development area southeast of SR-14 and north of Placerita Canyon Road; approximately 1 mile south and west of the proposed project.	498	618,759	1,259 (974 space)	open	Approved 2002; Commercial Center substantially complete and in operation, residential development not yet started
Whittaker Bermite /Porta Bella Project (TR 51599)	Map ID #8 - West of Golden Valley Road, south of Soledad Canyon Road, and east of San Fernando Road; approximately 5 miles west of the proposed project.	2,911	609,832	996 (407 space)	open	On Hold Pending Remediation Activities
Riverpark (TR 53425)	Map ID #12 - Located at the eastern terminus of Newhall Ranch Road, east of Bouquet Canyon Road, and north of Soledad Canyon Road and the Santa Clara River; approximately 5 miles west of the proposed project.	1,089	16,000	695		Under Construction
North Valencia Specific Plan No. II (MC 04-205)	Along the east side of San Francisquito Creek, north of Newhall Ranch Road, south of Decoro Drive, east of Rye Canyon Road, and west of McBean Parkway; approximately 7 miles west of the proposed project.	1,900	210,000	596		Project is completely built out.
Keystone/Synergy Project (TR 60258)	South of Bouquet Canyon Road, adjacent to the RiverPark project; approximately 5 miles west of the proposed project.	499	30,476	246 (137 space)	open	Approved 2006 – Development has not started
Downtown Newhall Specific Plan	Redevelopment of downtown Newhall area (along San Fernando Road); approximately 4 miles southwest of the proposed project.	1,092	1,017,000	320		Approved

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
North Newhall Specific Plan	Redevelopment along San Fernando Road in Newhall; approximately 4 miles southwest of the proposed project.	673	660,500 (Comm.) 261,000 (Elem. School)	213	Pending
Stetson Ranch (TR 49621)	East of Sand Canyon Road at the northern terminus of Gary and Marilyn Drives; approximately 1 mile north of the proposed project.	265	0	176	Approved and largely built out
Sand Canyon Joint Venture (TT 53255, 53074)	The northeast corner of Soledad Canyon Road and Sand Canyon Road; approximately 0.5 mile north of the proposed project.	87	110,000	89	Approved; development has not yet started
DR Horton (TR 48892)	Northeast corner of Sierra Highway and Golden Valley Road; approximately 2 miles west of the proposed project.	148	0	61	Approved and built out
Centex Homes (TR 61811)	Located north of Golden Valley Road, west of Sierra Highway; approximately 2 miles west of the proposed project.	52	0	14	Approved and Built
Soledad Village Project (MC 04-444)	North of Soledad Canyon Road, south of Santa Clara River; approximately 1 mile east of Bouquet Canyon Road; approximately 5 miles west of the proposed project.	407	8,000	30	Approved 2006
Friendly Valley Association 11 (TR 52385)	Generally located north of Sierra Highway and east of Via Princessa; approximately 2 miles west of the proposed project.	43	0	22	Proposed
Soledad Circle Estates	South of Soledad Canyon Road at Penlon Court; approximately 3 miles west of the proposed project.	147	0	20	Approved
Total Santa Clarita Residential/Mixed Use		9,811	3,280,567	4,737	n/a
Commercial/Industrial Projects					
Rye Canyon Business Park (TR 23916, 51826)	At the northeast corner of Rye Canyon Road and Newhall Ranch Road; approximately 8 miles northwest of the proposed project.	0	4,400,000	376	Mostly built out

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
Gate King (TR 50283)	Southern Santa Clarita, west of SR-14 and Sierra Highway, south of San Fernando Road; approximately 5 miles south of the proposed Project.	0	4,200,000	682	Approved
Centre Pointe Business Park (TR 42670)	South of Soledad Canyon road, east of Bouquet Canyon Road, west of Golden Valley Road; approximately 3 miles southwest of the proposed project.	0	2,300,000	45	Near Buildout
North Valencia Specific Plan No. I	Map ID #11 - South of Newhall Ranch Road, north of Magic Mountain Parkway, east of Rye Canyon Road, west of Bouquet Canyon Road; approximately 6 miles west of the proposed project.	2,000	803,000	707 (365 open space)	Built-out
Valencia Town Center Expansion	Northeast corner of Valencia Boulevard and McBean Parkway; approximately 7 miles west of the proposed project.	0	491,860	10	Built-out
Bridgeport Market Place	Northeast corner of McBean Parkway and Newhall Ranch Road; approximately 6 miles west of the proposed project.	0	160,000	32	Built-out
Henry Mayo Newhall Memorial Master Plan (MC 04-325)	23845 West McBean Parkway; approximately 7 miles west of the proposed project	0	600,000	21	Under Construction
Tourney North	Magic Mountain Parkway west of The Old Road and I-5; approximately 8 miles west of the proposed project.	0	450,000	100	Built-out
Tourney South	Wayne Mills Place east of I-5; approximately 8 miles west of the proposed project.	0	165,000	12	Built-out
Chinque Terra Office Park	On Sierra Highway between Dockweiler Drive and San Fernando Road; approximately 4 miles south of the proposed project.	0	90,900	6	Pending
Facey Medical Building	26357 McBean Parkway; 7 miles west of the proposed project.	0	79,000	4	Completed
HH Seco II LLC (MC 01-317)	Southwest corner of Seco Canyon Road and Copperhill Drive; approximately 8 miles northeast of the proposed project.	0	40,000	2	Completed

Name	Location	Units	Commercial/ Industrial (sf)	Acres ¹	Status
VTC Square	Northwest corner of McBean Parkway and Valencia Boulevard; approximately 7 miles west of the proposed project.	10	37,000	1	Approved
Rodgers Development Master Case 02-232	Northeast corner of Bouquet Canyon Road and Plum Canyon Road; approximately 6 miles northeast of the proposed project.	0	34,000	4	Completed
Total Santa Clarita Commercial/Industrial		2,010	13,850,760	2,002	
Institutional Projects					
College of the Canyons Expansion	South of Valencia Boulevard and west of Rockwell Canyon Road; approximately 7 miles west of the proposed project	n/a	180,000	5	Completed
Master's College Master Plan and TM 66503	21726 Placerita Canyon Road; approximately 3 miles west of the proposed project.	54	0	95	Approved
UCLA Film Archives	North of McBean Parkway and west of Rockwell Canyon Road; approximately 7 miles west of the proposed project.	n/a	368,730	65	Approved, under construction
Total Santa Clarita Institutional		54	548,730	165	
Infrastructure Projects					
Wiley Canyon Road/Via Princessa Bridge (South fork)	1,100-foot bridge, crosses South Fork of Santa Clara River in the city of Santa Clarita; approximately 4 miles west of the proposed project.	n/a	n/a	n/a	Built
Saugus Water Reclamation Plant	Near Bouquet Canyon Road, discharges to Santa Clara River; approximately 3 miles east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
Total Santa Clarita Infrastructure Subtotal		n/a	n/a	n/a	
Grand Total/Santa Clarita		11,875	17,680,057	5,094	

¹ Open space acreage information was not available for all projects, but is provided where available.

Source: City of Santa Clarita.

**Table 4.6-7
Los Angeles County Cumulative Projects**

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Residential/Mixed Use Projects					
Lyons Ranch (TR 53653)	West of I-5 and south of Pico Canyon Road; approximately 8 miles west of the proposed project.	186	800	235	Approved; development has not started
Fair Oaks Ranch (TR 47200, 52833, 52938)	East of SR-14, northeast of Via Princessa, and west of Sand Canyon Road; approximately 0.25 mile south of the proposed project.	1,476	19 acres [827,640 sf]	839 (497 open space)	Under Construction - mostly developed
Stevenson Ranch Phase IV (PD #2528; TR 52796, 43896)	West of I-5 and southwest of Magic Mountain Parkway; approximately 9 miles west of the proposed project	1,130	0	488 (113 open space, not including open space in Phase V)	Stephenson Ranch is partially built; Phase IV is pending
Plum Canyon (TR 46018)	East of Bouquet Canyon Road and north of the northern terminus of Whites Canyon Road; approximately 3 miles northwest of the proposed project.	4,051	150,000	603	Under Construction
Skyline Ranch (TR 060922)	East of Whites Canyon Road, west of Sierra Highway; approximately 2 miles north of the proposed project.	1,325	0	2,196 (1,604 open space)	Approved
Plum Canyon (SunCal) (TR 31803)	South of Plum Canyon Road, east of Bouquet Canyon Road; approximately 4 miles west of the proposed project.	499	0	209 (90 open space)	Built out
Legacy Village (formerly Stevenson Ranch V)	Map ID #5 - approximately 9 miles west of the proposed project.	3,425	840,200	1,759	Pre-Application
Tesoro del Valle (TR 51644)	Map ID #6 - West side of San Francisquito Creek, north of Copperhill Drive; approximately 7 miles northwest of the proposed project.	1,791	0	1,793	Phase I Built out

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
West Creek/West Hills Valencia Project (TR 52445)	Map ID #9 - West side of San Francisquito Creek, north of Newhall Ranch Road and south of the Copperhill Drive bridge; approximately 7 miles northwest of the proposed project.	2,545	180,000	966	Under Construction
Westridge Project (TR 45433 & MP 19050)	Map ID #10 - Just west of I-5, north of Stevenson Ranch, and directly south of Six Flags Magic Mountain Amusement Park; approximately 9 miles west of the proposed project.	1,939	192,000	794	Built out
Northlake (TR 51852)	Near Castaic Lake; approximately 12 miles northwest of the proposed project	1,698	388,775	1,330 (312 open space)	Approved
Tapia Ranch (TR 53822)	Map ID #7 - Tapia Canyon Road, west of Tesoro Residential Development. Access to the site currently <i>via</i> Parker Road exit from I-5; approximately 9 miles northwest of the proposed project.	405	0	1167	Pending
Spring Canyon (TR 48086)	East of City of Santa Clarita boundary, south of Sierra Highway, north of SR-14 and Soledad Canyon Road; approximately 2 miles northeast of the proposed project.	542	0	548 (279 open space)	Approved
Bee Canyon (TR 54020)	East of City of Santa Clarita boundary, south of SR-14; approximately 2 miles northeast of the proposed project.	556	0	211 (76 open space)	On Hold
Tick Canyon/Park Place (TR 060259)	Along Shadow Pines Boulevard just east of City of Santa Clarita boundary, north of Stonecrest Annexation area and SR-14; approximately two miles northeast of the proposed project.	492	0	523 (272 open space)	Approved
Hasley Golf Course (TR 52584)	North of Hasley Canyon Road, west of I-5; approximately 12 miles northwest of the proposed project.	209	0	438	Approved-graded

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Meadow Peak Project (TT 47760)	South of the Angeles National Forest, north of the City of Santa Clarita boundary, and northeast of the intersection of Copperhill Drive and Haskell Canyon Road; approximately 5 miles northwest of the proposed project.	495	0	454	Pending
Tincher (TR 060319)	Located at The Old Road and Villa Canyon Road; approximately 11 miles northwest of the proposed project.	36	0	8	Approved
G. H. Palmer and Associates (TR 45023)	North of Fair Oaks Ranch, east of SR-14; directly west of the proposed project.	752	0	8	Built
North Park (TR 46389)	West of Seco Canyon Road, east of Mc Bean Parkway, north of Decoro Drive; approximately 7 miles northwest of the proposed project.	744	0	350	Built
Pacific Bay Homes (TR 36943)	East of City of Santa Clarita boundary and Stonecrest Annexation area, north of Highway 14; approximately 9 miles northwest of the proposed project.	636	0	213	Built
Stevenson Ranch III (TR 33608)	North of Pico Canyon Road, west of The Old Road; approximately 9 miles west of the proposed project.	972	0	112	Built out
Fair Oaks Ranch (TR 44492)	East of Sierra Highway, north of Via Princessa; approximately 0.25 mile south of the proposed project.	634	0	37	Built out
Centex Homes Bouquet Canyon (TR 46908)	South of the Angeles National Forest, north of Copperhill Drive, west of the Meadow Peak project; approximately 5 miles northwest of the proposed project.	594	0	381	Built out
Ion Communities, Castaic (Tract 46443)	West of I-5 in Castaic; approximately 12 miles northwest of the proposed project.	95	0	159	Approved
Curtis Development Corporation (TR 47657)	North of Haskell Canyon Road and Copperhill Drive; approximately 5 miles northwest of the proposed project.	223	0	63	Built out

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
G. H. Palmer and Associates (TR 45287)	On Sandy Drive and Jakes Way, between Sierra Highway and SR-14, south of the Santa Clara River; approximately 0.5 mile west of the proposed project.	463	0	23	Built out
Davidon Homes (TR 35783)	North of Copperhill Drive and east of Seco Canyon Road; approximately 5 miles northwest of the proposed project.	419	0	149	Built out
Green Valley Ranch Residential (TR 62000, 60257, and 062275)	Located south of Del Valle Road near Cromwell Avenue. The property is located approximately 0.5 mile west of the intersection of Hasley Canyon Road and Del Valle Road, and approximately 1.5 miles north of SR-126; approximately 13 miles west from the proposed project.	233	30,000	224	Pending
Newhall Land (TR 44429)	Along Ridge Route Road, east of I-5 in Castaic; approximately 12 miles northwest of the proposed project	293	0	113	Built out
Valencia Company (TR 48202)	Northeast corner of Decoro Drive and Copperhill Drive; approximately 7 miles northwest of the proposed project.	458	3.5 acres [152,460 sf]	9	Built out
Valencia Company (TR 45084)	Corner of Commerce Center Drive and Hasley Canyon Road; approximately 12 miles northwest of the proposed project.	294	0	150	Built out
Valencia Company (TR 36668)	West of The Old Road, north of Commerce Center Drive; approximately 12 miles northwest of the proposed project.	359	one lot	134	Built out
Curtis Development Corporation (TR 45958)	West of I-5 in Castaic; approximately 12 miles northwest of the proposed project.	296	0	357	Built out
Gerald Nordeman (TR 44373)	Along Hillcrest Parkway, west of I-5, north of Hasley Golf Course; approximately 12 miles west of the proposed project.	1,114	4 acres [174,240 sf]	376	Built out
Davidon Homes (TR 46183)	West of Haskell Canyon Road, north of Copperhill Drive; approximately 5 miles northwest of the proposed project.	213	0	80	Built out

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Forest Edge Project (Western Pacific Housing, TR 51789)	West of Haskell Canyon Road, north of Copperhill Drive; approximately 6 miles northwest of the proposed project.	194	0	79 (30 open space)	Built out
Bouquet Canyon Land Fund 8, LLC (TR 52193)	Located west of Bouquet Canyon Road near the intersection of Bouquet and Vasquez Canyon Road; approximately 5 miles northwest of the proposed project.	179	20,000	260	Pending
Westshire (Pardee Homes, TR 063483)	Located immediately south of SR-14, southwest of Via Princessa and north of Lost Canyon Road; approximately 0.5 mile southwest of the proposed project.	190	0	13 (3 open space)	Approved
Overland National Land Fund (TR 52192)	Southwest of the intersection of Bouquet Canyon Road and Vasquez Canyon Road; approximately 5 miles northwest of the proposed project.	155	0	204	Pending
Condo III Development, Larwin Company, Val Verde (TR 51995)	West of I-5, south of Hillcrest Parkway; approximately 11 miles northwest of the proposed project.	114	0	15	Built out
Forecast Homes (TR 46353)	Located in Mint Canyon just southeast of Sierra Highway and west of Sand Canyon Road, just north of the City of Santa Clarita boundary; approximately 2 miles north of the proposed project.	110	0	65	Built out
Golden Valley Ranch (TR 52535)	West of I-5 in Castaic; approximately 12 miles northwest of the proposed project.	80	0	260	Pending
Decoro Drive Residential (TR 45440)	West of McBean, east of San Francisquito Creek; approximately 6 miles northwest of the proposed project.	182	0	99	Built out
(PM 19784)	West of Commerce Center Drive, north of SR-126; approximately 0.25 mile northwest of the proposed project.	0	750,000	288	Built out
(TR 42537)	West of I-5 in Castaic; approximately 11 miles northwest of the proposed project.	95	0	553	Built out

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Sierra Way Estates (TR 47573)	Located northeast of the intersection of Sierra Highway and Vasquez Canyon Road; approximately 3 miles northwest of the proposed project.	75	0	246 (179 open space)	Pending
(TR 47807)	West of Sloan Canyon Road and I-5 in Castaic; approximately 12 miles northwest of the proposed project.	77	0	197	Approved
SunCal Burnam Project (TR 53189)	Along San Francisquito Creek, west of McBean Parkway and north of Copperhill Drive; approximately 7 miles northwest of the proposed project.	40	0	186	Approved
Hasley Ranch Co. Greystone Homes Inc. (TR 45645)	Hasley Canyon Road and Romero Canyon Road, west of the Hasley Canyon Golf Course and I-5; approximately 12 miles northwest of the proposed project.	67	0	160	Built out
Arciero and Sons, Inc. (TR 53725)	West of Hasley Canyon Golf Course and I-5; approximately 12 miles northwest of the proposed project.	42	0	139	Pending
Del Valle Project (TR 060665)	South of Hasley Canyon Golf Course; approximately 12 miles northwest of the proposed project.	111	0	134	Pending
Tract 52475	North of Hasley Canyon Road, west of Del Valle Road, approximately 12 miles northwest of the proposed project.	46	0	70	Pending
Sterling Gateway (TR 60030)	Located east of Chiquita Canyon Road, just north of the RMDP/SCP project area; approximately 12 miles northwest of the proposed project.	0	1,300,000	108	Pending
Newhall Ranch Specific Plan	Located west of I-5 to the Los Angeles County/Ventura County line; approximately 9 miles west of the proposed project.	20,885	5.55 msf	11,999	Approved
Entrada	Located west of I-5, adjacent to The Old Road, northwest of the City of Santa Clarita; approximately 9 miles west of the proposed project.	1,725	0.45 msf	316	Pending

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Valencia Commerce Center	Located west of I-5 between Hasley Canyon and SR-126 and immediately north of the Newhall Ranch Specific Plan site; approximately 9 miles west of the proposed project.	0	12.6 msf	321.3	Approved
Newhall Ranch RMDP/SCP	Located west of I-5 to the Los Angeles County/Ventura County line (and including Salt Creek corridor west of the Los Angeles County/Ventura County line); project encompasses Newhall Ranch Specific Plan, and the Entrada and Valencia Commerce Center planning areas ; approximately 9 miles west of the proposed project.	n/a	(Project facilitates development of Specific Plan, Entrada, and Valencia Commerce Center, shown above. Project also would result in approximately 10,000 acres of open space.)		Pending
Total Los Angeles County Residential/Mixed Use³		55,959	20,000,000	33,211.3	n/a
Industrial/Commercial Projects					
(PM 26574)	North of Henry Mayo Drive, west of The Old Road, north of the I-5 and SR-126 interchange; approximately 12 miles west of the proposed project.	0	1,879,500	114	Built out
Valencia Industrial Center	Map ID #4 - East of I-5, south of Newhall Ranch Road, north of Magic Mountain Parkway; approximately 8 miles west of the proposed project.	0	12,900,000	1,840	Built out
PM 18654	Northwest of The Old Road and Magic Mountain Parkway, near Six Flags Magic Mountain Amusement Park; approximately 9 miles west of the proposed project.	0	200,000	9	Partially built
Curtis Sand and Gravel Mine and Aggregate Plant	Upper Santa Clara River, approximately 1.5 miles east of the proposed project.	0	n/a	185	Operating since 1955
Transit Mix (CEMEX) Soledad Canyon Mine	East of City of Santa Clarita boundary, at the entrance to Soledad Canyon; approximately 3 miles east of the proposed project.	0	n/a	300	Suspended pending federal legislation

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
Chiquita Canyon Landfill Expansion	Map ID #17 - West of I-5, north of SR-126 at Wolcott Way; approximately 13 mile west of the proposed project.	0	n/a	98	Pending
Disney Ranch	Placerita Canyon Road, east of SR-14, 2 miles south of the proposed project.	0	555,950	890	Pending
Industrial/Commercial Subtotal		0	15,535,450	3,436	
Institutional Projects					
Castaic High School	West of I-5, near Sloan Canyon Road, approximately 12 miles northwest of the proposed project.	0	500,000	50	Pending
Total Los Angeles County Institutional		0	500,000	50	
Infrastructure Projects					
Bouquet Canyon Bridge Widening	Adding one lane in each direction on Bouquet Canyon Bridge at Santa Clara River; approximately 6 miles west of the proposed project.	n/a	n/a	n/a	Completed
Copperhill Drive Bridge	Upper San Francisquito Creek, 565-foot bridge, up to six lanes; approximately 7 miles northwest of the proposed project.	n/a	n/a	n/a	Completed
Commerce Center Drive Extension	Extension of Commerce Center Drive and Bridge over Castaic Creek; approximately 12 miles west of the proposed project.	n/a	n/a	n/a	Completed
Cross Valley Connector	Two-mile extension of Newhall Ranch Road to east of Bouquet Canyon Road, including approximately 120-foot-wide bridge over Santa Clara River, connecting with Golden Valley Road; approximately 1.5 miles west of the proposed project.	n/a	n/a	n/a	Completed
Santa Clarita Valley Joint Sewerage Facilities Plan	Map ID #16 - Los Angeles County.	n/a	n/a	n/a	Approved
I-5/Hasley Canyon Road	Within Valencia Commerce Center, I-5 at the I-5/Hasley Canyon Road interchange	n/a	n/a	n/a	

Name	Location	Units	Commercial/ Industrial (sf) ¹	Acres ²	Status
I-5/Magic Mountain Parkway Interchange Project	Modify the I-5/Magic Mountain Parkway interchange, reconstruct the Santa Clara River Bridge, realign The Old Road, and realign and widen Magic Mountain Parkway from six to eight lanes;	n/a	n/a	n/a	Completed
Valencia Water Reclamation Plant	Immediately downstream of the I-5 bridge, discharges to the Santa Clara River	n/a	n/a	n/a	Completed
I-5 Santa Clara River Bridge Replacement	Santa Clara River and I-5;	n/a	n/a	n/a	Completed
Castaic Junction Project	I-5/SR-126 interchange improvement project; approximately 0.25 mile east of the proposed RMDP/SCP project.	n/a	n/a	n/a	Completed
Total County Infrastructure Subtotal		n/a	n/a	n/a	
Grand Total/County		55,959	19,331,310.9	35,807.3	

Note: The Las Lomas Project (PM 060792) application was denied, and thus, it was not included in this list because it is currently not reasonably foreseeable.

¹ In some instances, commercial/industrial square footage was not available but an acreage for such uses was provided. That acreage was converted to square footage [shown in brackets] to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects, but is provided where available.

³ Ritter Ranch and Centennial are not included in the totals because they are located in a different watershed.

Source: Los Angeles County.

msf = million square feet

(3) Cumulative Projects Overview

Table 4.6-8 contains a summary of the City/County cumulative project information shown in Tables 4.6-6 to 4.6-7, above.

**Table 4.6-8
Summary of Total City/County Cumulative Projects**

Agency	Units	Comm./Ind (sf) ¹	Acres	Open Space Acres ²
City of Santa Clarita	11,875	17,680,057	5,094	n/a
Los Angeles County	55,959	19,331,310.9	35,807.3	n/a
Total	67,834	37,011,367.9	40,901.3	12,270.3–20,450.6

Notes:

¹ Includes some instances where commercial/industrial acreages were converted to square footage [shown in brackets in Tables 4.6-6 to 4.6-7 to provide an estimated basis for aggregating square footage totals.

² Open space acreage information was not available for all projects; therefore, the "Open Space Acres" number represents an estimate of the minimum range of open space acreage within the City/County projects shown in Tables 4.6-6 to 4.6-7. The estimate used a range of a low of 30 percent and a high 50 percent in calculating the open space acreage shown in this table.

Source: Tables 4.6-6 and 4.6-7.

c. Cumulative Impacts Analysis on Biological Resources

The *Watershed Study* analyzed the cumulative impacts of development on biological resources, as well as ecological functions and processes, within the SCRW. The study evaluated impacts arising from past projects, current land use classifications, and future approved and planned projects.⁵⁵ The *Watershed Study* relied on available data for baseline conditions, current land use classifications, planned and approved projects (only available for the Los Angeles County portion of the watershed⁵⁶), existing vegetation and land use cover types, soils, geology, elevations and slopes, special-status biological resources, and conceptual regional wildlife corridors and habitat linkages in the SCRW.

Baseline data for the analyses presented in the *Watershed Study* were compiled from several data sources:

- Current land use classifications and existing public lands and open space areas based on County and City general plans: UC Davis (2004)
- Watershed and sub-basin data: CalWater Version 2.2 (CIWMC 1999)
- Vegetation: California Gap Analysis Project (GAP) (UCSB Biogeography Lab 1999)

⁵⁵ With respect to future approved and planned projects, the *Watershed Study* conducted a broader analysis of cumulative projects than is presented in this EIR because the *Watershed Study's* framework was to describe and assess existing and potential future development within the entire SCRW.

⁵⁶ Dudek contacted Ventura County to obtain digital special information for planned and approved projects, but those data were not available from the County.

- Soils: National Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) database (2007)
- Elevation and slope: U.S. Geological Survey (USGS) National Elevation Data (2007).

For special-status biological resources, California Natural Diversity Database (CNDDDB) element occurrences within the SCRW for vegetation communities and state- and/or federally listed threatened and endangered species were included. For the analysis of regional wildlife corridors and habitat linkages, two main documents were used: the *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica-Sierra Madre Connection* (SCMLP) (Penrod et al. 2006) and the *Missing Linkages: Restoring Connectivity to the California Landscape* (Penrod 2000).

(1) Existing Conditions

The SCRW drains approximately 1,036,571 acres (or 1,620 square miles) of natural and urban areas that lie north and east of Los Angeles in the counties of Los Angeles, Ventura, Santa Barbara, and Kern. The watershed is divided into 14 sub-basins that range in size from 7,433 to 291,730 acres. Most of the sub-basins are comparatively small, with only three sub-basins having more than 100,000 acres. Of the 1,036,571 total acres, approximately 733,526 acres (70.8 percent)⁵⁷ are comprised of open space and 303,045 acres (29.2 percent) are classified as “developed.”⁵⁸

The *Watershed Study* identified a total of 40 vegetation and land cover types, which are organized into nine general communities: big sagebrush scrub; coastal scrub; chaparral; non-native grassland; riparian/wetland; woodland and forest; other non-vegetated natural land cover; agricultural land; and, developed and disturbed land. Chaparral, coastal scrub, and woodland and forest comprise 85 percent of the watershed, at 53, 17, and 15 percent, respectively. The watershed is classified as having 19 different geologic types and 27 primary soil types.

Data from the Corps and CDFG gathered in connection with the *Watershed Study* show that, from about 1988 to 2006, there has been a substantial cumulative net gain in mitigated acreage of jurisdictional waters and wetlands relative to impacts. In other words, more jurisdictional waters and wetlands exist today than there were in 1988.

⁵⁷ 635,172 acres of existing public lands account for approximately 87 percent of the 733,526 acres of classified open space. National Forest land accounts for approximately 95 percent of the 635,172-acre total.

⁵⁸ Lands classified as “developed” may in fact be vacant; however, the intent is to identify the total acreage of land use designations that permit future development.

(2) Cumulative Impacts

The *Watershed Study* evaluated the impacts of planned and approved projects located within five of the 14 sub-basins in the watershed, all of which are located in Los Angeles County and/or the City of Santa Clarita and total 479,096 acres.⁵⁹ Within these five sub-basins, planned and approved projects comprise approximately 9 percent (or 45,106 acres) of the watershed. Of the 45,106-acre area that is impacted by planned and approved projects, 6,686 acres are located within the City of Santa Clarita; 37,971 acres are located with the County of Los Angeles; and 449 acres are located in both jurisdictions. These projects would impact 16 of the 40 distinct vegetation and land cover types identified in the watershed, 14 of the 149 geologic types, and seven of the 27 primary soil types.

Based on evaluation of this data, as more thoroughly explored in the *Watershed Study*, the *Watershed Study* concluded that:

1. The watershed is relatively undeveloped and has substantial existing and designated open space, substantial portions of which will be protected in perpetuity.
2. Biological and physical features of the watershed related to watershed functionality would be retained under current land use classifications because of the extent of open space preservation.
3. Cumulative net increases in and enhancement of jurisdictional wetlands and water are expected in the future.
4. Planned and approved projects in the City of Santa Clarita and County of Los Angeles would increase the amount of development in the watershed by about four percent.

Relying on the information and analysis presented in the *Watershed Study*, this EIR concludes that buildout of the Vista Canyon project would permanently convert acreage from a mostly undeveloped and highly disturbed property to that of an urban environment. Cumulative impacts related to development of the project site would include reducing total vegetation and wildlife habitat area and open area in the Santa Clarita Valley region.

Construction and operation of uses developed on site would directly impact wildlife on and near the Vista Canyon project site. Within the planned development areas, species of low mobility would be lost during site preparation. Conversion of existing undeveloped land to developed uses consisting of structures and landscaping would eliminate some natural vegetation communities on developed portions of the project site and result in a reduction in native wildlife species diversity. Buildout of uses within the

⁵⁹ The five sub-basins evaluated include: Acton; Eastern; Mint Canyon; Santa Felicia; and, Sierra Pelona.

project site also would limit the local movement of wildlife species that currently make use of areas proposed for development.

However, the Vista Canyon project site mitigates the project's identified impacts to sensitive biological resources to a less than significant level; and, therefore, would not result in cumulatively considerable impacts to the region based on the watershed analysis presented in the *Watershed Study*. Specifically, the Vista Canyon project site constitutes a very small proportion of the overall watershed and planned development on site would not significantly contribute to the overall development in the watershed, or to the amount of development allowed under current land use classifications. Based on its location, the Vista Canyon proposed project also would not significantly impact regional wildlife corridors and habitat linkages within the SCRW.

7. CUMULATIVE MITIGATION MEASURES

The proposed project would not result in cumulatively considerable impacts to sensitive biological resources within the project vicinity or watershed. Thus, no additional cumulative mitigation measures are required beyond those already identified.

8. SIGNIFICANT UNAVOIDABLE IMPACTS

Implementation of the recommended mitigation measures would reduce project-level direct and indirect impacts to a less than significant level. The project also would not result in cumulatively considerable impacts to sensitive biological resources in the watershed. Because measures can mitigate project and cumulative impacts to less than significant levels, no significant unavoidable impacts to biological resources are expected with implementation of the proposed project.