

**BIOLOGICAL RESOURCES TECHNICAL REPORT
BAHER PROPERTY: A.P.N. 5110-190-285 & -305
CITY OF MOORPARK, CALIFORNIA**



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EXECUTIVE SUMMARY

This biological resources technical report describes the existing biological resources on the West Point Homes' Baher Property project site (A.P.N. 5110-190-285 and -305), anticipated impacts, and proposed mitigation measures. The project site is comprised of 67.96 acres of undeveloped and developed areas in the City of Moorpark. The site supports 5.60 acres of coastal sage scrub (CSS), 3.34 acres of ruderal grassland, 1.51 acres of landscaped areas, 43.10 acres of ruderal with CSS elements, 6.84 acres of ruderal with landscaping and CSS elements; 4.79 acres of CSS with ruderal elements, 0.30 acres mule fat scrub, and 0.26 acres of southern alluvial fan scrub.

Several habitat/vegetation types protected under City, County, State, ^{and/or} Federal legislation or policies occur on the project site. These are coastal sage scrub, mule fat scrub, southern alluvial fan scrub, and streamcourses. In each case there is a prescribed permitting process that must be followed and conditions that must be met in order to legally impact these resources. The U.S. Army Corps of Engineers (USACE), California Regional Water Quality Control Board (CRWQCB), and California Department of Fish and Game (CDFG) regulate impacts to streamcourses. Additionally, CSS gets de facto protection due to the potential occupation by sensitive species that include coastal California gnatcatcher.

There are 72 sensitive biological resources known to occur in the area, of which 26 are plants, 33 are wildlife, and 13 are habitat types. Of these, five (5) sensitive wildlife species are known to occur on the site. Two (2) sensitive plants possibly occur on the project site. An additional 11 sensitive wildlife species possibly occur on the site as residents or transients, including the federally and state-listed coastal California gnatcatcher. Three (3) sensitive habitats are present on the project site.

Project grading activities would result in the permanent loss of 53.93 acres of the vegetation communities that are found onsite. Additional areas may also be impacted in the future due to the need for fuel modification for wildfire safety (in accordance with the City of Moorpark or County of Ventura's standards) ^{and/or} landscaping around the estate lots. Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite. According to grading plans for the project, implementation would impact a portion of each of these drainages.

Mitigation would be required in order to obtain some or all of the necessary permits needed for the project. Mitigation may include one or a combination of the following measures: impact avoidance; purchase of credits in an established mitigation bank; purchase and preservation of similar habitats in the project vicinity; ^{and/or} creation or enhancement of existing similar resources on the project site or in the project vicinity. In conclusion, if all impacts to biological resources are mitigated appropriately, project implementation would result in no significant unavoidable impacts to biological resources on the project site.

INTRODUCTION

The floral and faunal composition of the project site is described herein from information compiled through field reconnaissance, supplemented by existing documentation of biological resources within the Baher Property project vicinity. The site was surveyed in December 2009 by LDC biologists. The specific location of the proposed project site is 5979 Gabbert Road, City of Moorpark, Ventura County, California (see **Figure 1**). Geographically the site is located on the northern edge of the Little Simi Valley on the southern flank of Oak Ridge. The 67.96 acre site can be located on the USGS 7.5 minute *Moorpark* quadrangle map. The site is located in Section 6 in T2N, R19 W San Bernardino Baseline and Meridian.

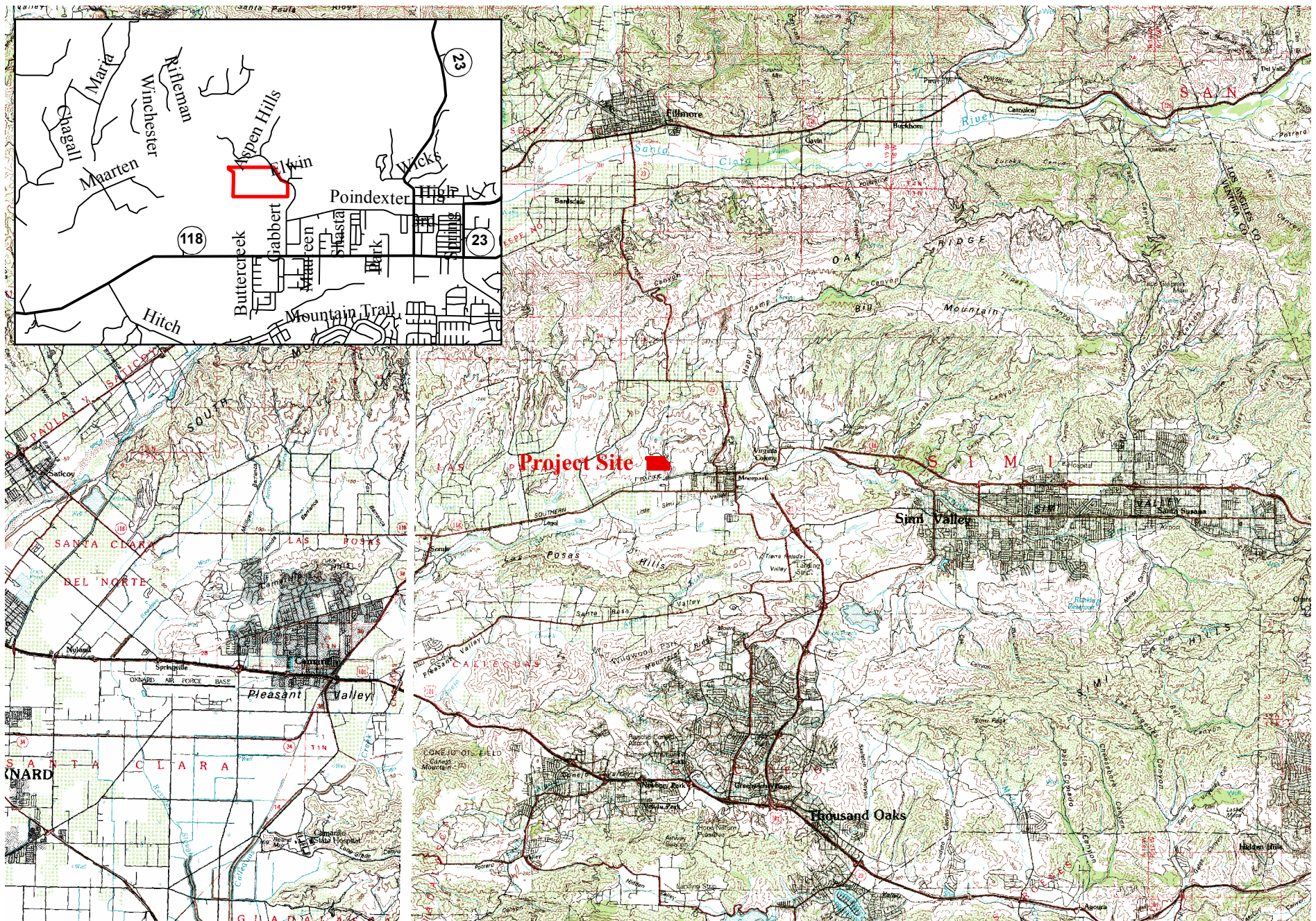
Methodology

Habitat types were located and mapped in the field with the aid of a 200 scale (1"=200') aerial photographs. Habitats generally do not have sharp boundaries, but are usually somewhat indistinct, with several species from a given community found in adjacent communities.

Plant components of the site were determined through the use of field identification, combined with spring floristic surveys previously done by LDC biologists on parcels in the immediate vicinity of the project site. Faunal constituents were determined through the use of field identification, combined with documented habitat preferences of regional wildlife species that, whether or not detected during the survey, are thought to include the site within their range. The overall biotic composition of the site was derived from this information.

Literature Review

In addition to the general flora and fauna field surveys, vegetation mapping, wildlife inventories, and habitat assessments, information on the biological resources of the proposed project site was obtained by reviewing existing available data. Databases such as the California Natural Diversity Database (CNDDB 2008) and California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2008) were reviewed regarding the potential occurrence of any special status plant species or sensitive habitat within or in close proximity of the project site. In addition, reports from biological surveys conducted in the project area and relevant published literature were reviewed for occurrences of sensitive biological resources.



The resources used in this thorough archival review included the following:

- California Natural Diversity Data Base (CNDDB) for the USGS 7.5' quadrangle which comprised the study area: *Moorpark* and neighboring quads for pertinent data;
- California Native Plant Society Online Inventory of Rare and Endangered Plants (7th edition);
- Special Animals, CDFG, Biogeographic Data Branch, February 2008;
- Special Vascular Plants, Bryophytes, and Lichens List, CDFG, Biogeographic Data Branch, April 2008;
- State and Federally Listed Endangered, Threatened and Rare Plants of California; CDFG, Biogeographic Data Branch, April 2008;
- State and Federally Listed Endangered and Threatened Animals of California, CDFG, Biogeographic Data Branch, May 2008;
- Review of previous biological assessment reports and species lists for the region and neighboring areas;
- Published literature (Biggs 2000, Borror and White 1970, Boyd 1999, Burt and Grossenheider 1976, Hogue 1993, Holland 1986, Garrett and Dunn 1981, Jameson and Peeters 2004, Jennings and Hayes 1994, Manolis 2003, Moe 2004, Munz 1935, Powell and Hogue 1979, Ray 1988, Sibley 2000, Small 1994, Stebbins 2003, Williams 1986);
- Additional published literature and scientific articles; and
- Aerial photos of the project area and regional geologic and local soil maps (Woodruff et al. 1970).

REGIONAL OVERVIEW

The project site is located on the northern edge of the Little Simi Valley on the southern flank of Oak Ridge. The Little Simi Valley is drained to the west by Arroyo Simi/Arroyo Las Posas (part of the Calleguas Watershed Unit). The Las Posas upland area, a broad elevated region that slopes gently to the south, separates the South Mountain-Oak Ridge highlands from the Las Posas-Camarillo Hills between Little Simi Valley on the east and the Oxnard Plain on the west. This relatively low-lying area is also referred to as the Las Posas Valley. Numerous north-south-trending drainages cut South Mountain and Oak Ridge creating steep narrow canyons on north-facing slopes and wide flat-bottomed canyons with incised streams on south-facing slopes. Quaternary surficial deposits cover the floor and margins of the Little Simi Valley, Santa Clara River Valley in the north, and Arroyo Las Posas in the south, and extend up into the larger canyons that drain South Mountain and Oak Ridge. The Simi fault, located at the eastern end of the Simi-Santa Rosa fault system, bounds the northern margins of the Simi and Tierra Rejada Valleys. West of Simi Valley, the Simi fault has placed Miocene Conejo Volcanics over Plio-Pleistocene Saugus Formation rocks (Yerkes and Campbell 1997).

The region experiences a Mediterranean climate characterized by hot dry summers, and cool, mild winters, with precipitation occurring in the winter months. The area is within the climatic transition zone from the moister coastal region to the more arid inland regions of southern California. The transition zone is characterized by shift in species composition of the plant and animal communities from coastal species or races to those found in the inland valleys. Many plant and animal specimens collected in this transition region exhibit characteristics of both inland and coastal populations. Valley and coast live oak woodlands and savannas, riparian woodland, chaparral, coastal sage scrub, and grassland compose the natural biotic communities in the project vicinity.

PROJECT SITE DESCRIPTION

The physical and biotic characteristics of the site are described as it existed at the time of the biological surveys.

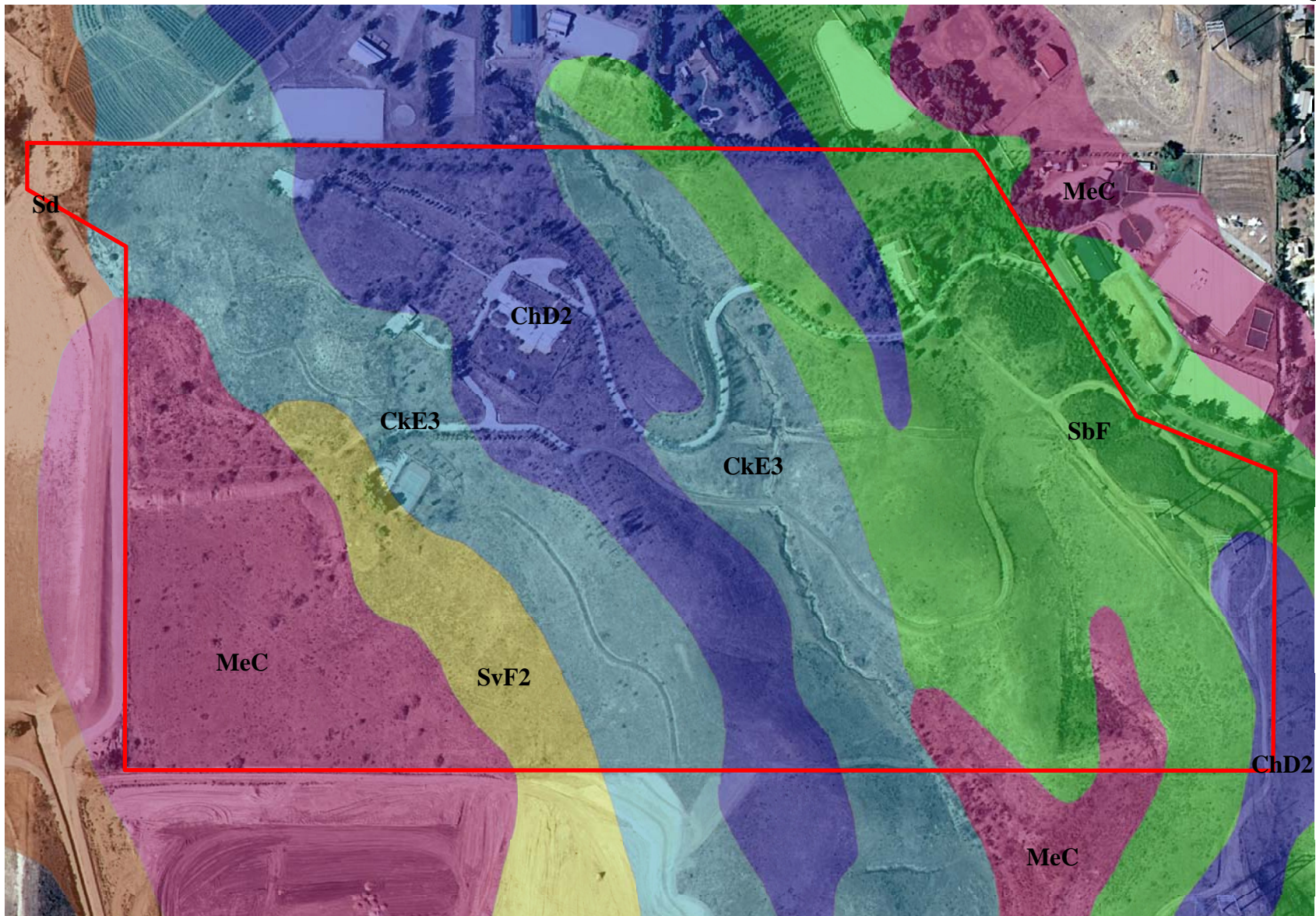
Non-Biotic Characteristics







The topography of the project site is defined by three rolling, broad-topped ridges that trend from northwest to southeast, the basins in between, and a relatively flat area in the southwest corner. An incised drainage is found between two of the ridgelines in the center of the project site and a portion of a wash of an unnamed blue-line stream is located in the northwest corner. The soils onsite have primarily been mapped as five (5) types of sandy or gravelly loam, with a small portion sandy alluvial soil in the wash in northwest corner (see **Figure 2**).

The developed portions of the project site comprise 2.22 acres (3.27%) of the project site, which includes three (3) buildings that are still present onsite: a single-family residential home and a garage in the northeast corner, and a large storage shed in the northwest section. Two (2) concrete pads, a tennis court, long, winding driveways, and four (4) transmission line towers are also located on the project site.

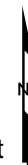
Vegetation Communities & Plant Composition

The plant communities that are found on the project site were defined in the field using Holland's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and the numerical habitat designation from Sawyer and Keeler-Wolfe's *A Manual of California Vegetation* (1995). Plant community boundaries are rarely definable by a sharp line but are usually somewhat indistinct, with several species from a given community found in adjacent communities. This is especially true onsite where coastal sage scrub, ruderal grassland, and landscaping elements occur together in various degrees.



-  ChD2 - Chesterton coarse sandy loam, 5 to 15% slopes, eroded
-  CkE3 - Chesterton sandy loam, 9 to 30% slopes, severely eroded
-  MeC - Metz loamy sand, 2 to 9% slopes
-  SbF - San Andreas sandy loam, 30 to 50% slopes
-  Sd - sandy alluvial land
-  SvF2 - Soper gravelly loam, 30 to 50%, eroded

0 137.5 275 550 Feet



Onsite Soils

Source: USDA NRCS

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As shown in **Figure 3**, the eight (8) vegetation communities on the project site were mapped based on the species dominant in an area, along with the occurrences of habitat elements typically associated with other communities. See **Appendix 1** for a comprehensive listing of the plant species either observed or expected to occur onsite. Given that the surveys of the project site were conducted in December, the plant list has been supplemented with three floristic surveys conducted in the spring of 2004 on parcels in the immediate vicinity of the project site (A.P.N.s 5110-180-110, 5110-190-120, 5110-190-150, 500-0-180-185, 500-0-190-195, 511-0-190-205, and Tentative Tract 5505).

The following are descriptions of each community present onsite:

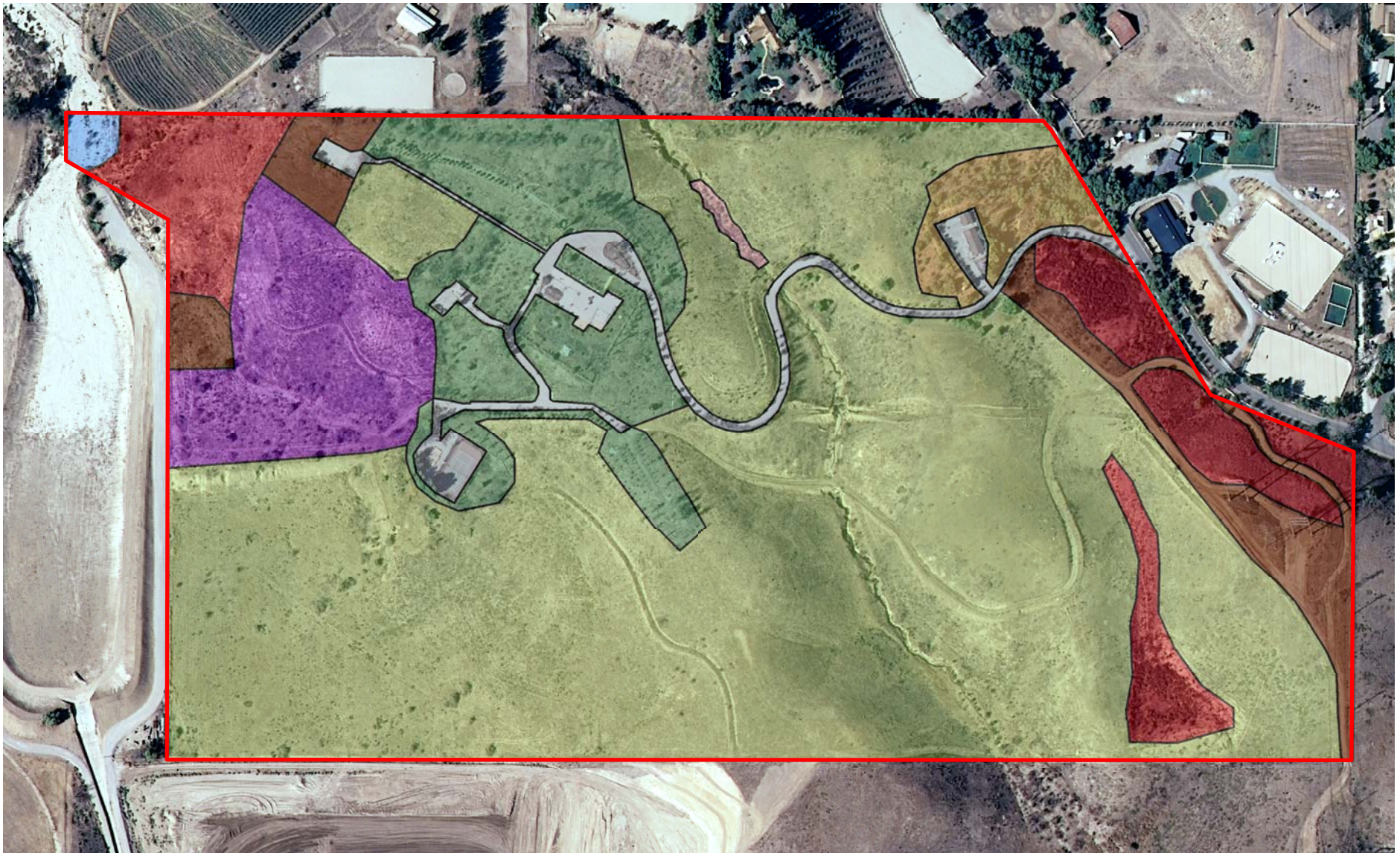
Coastal Sage Scrub (California Sagebrush 32.010.01)










Areas that are defined as coastal sage scrub (CSS) are strongly dominated by species that are associated with this community. Dominance is based primarily on the coverage of the CSS species compared with species associated with our communities.

CSS is found on **5.60 acres** (8.24%) of the project site. California sagebrush (*Artemisia californica*) is the dominant CSS-associated plant on the project site, with deerweed (*Lotus scoparius*), white sage (*Salvia apiana*), blue elderberry (*Sambucus mexicana*), California brittlebush (*Encelia californica*), and saw-toothed goldenbush (*Hazardia squarrosa*) also occurring frequently. Nonnative, herbaceous annuals such as red brome (*Bromus madritensis* ssp. *rubens*), longbeak stork's bill (*Erodium botrys*), and shortpod mustard (*Hirschfeldia incana*) are a substantial portion of the understory vegetation.

Coastal sage scrub occurs in comparatively dry, hot, and exposed areas, frequently on south- or southwest-facing slopes. The vegetation consists generally of semi-woody subshrubs 1 to 4 feet high, for which the principle adaptation is the exploitation of moisture in the thin, upper soil horizons during the cool winter season. Coastal sage scrub often occurs in thin soil over bedrock. Most coastal sage species are active during the winter months, initiating new growth shortly after the onset of fall rains. About two-thirds of the plant species found in the coastal sage scrub are drought-deciduous, losing their leaves in the summer; the remainders are evergreens that are adapted to arid environments. Venturan coastal sage scrub occurs typically on low moisture-availability sites: steep, xeric slopes or clay-rich soils that are slow to release stored water (Holland 1986). Because of the frequent occurrence of the habitat in less than ideal situations, the vegetative cover is frequently more open than in adjacent communities. The more open nature of coastal sage scrub permits the occurrence of a greater herbaceous component of forbs, grasses, and succulents than is usually associated with dense stands of mature chaparral.

According to the Coastal Sage Scrub Scientific Review Panel, appointed by the California Secretary of Resources, approximately 100 species of plants and animals considered rare, Sensitive, Threatened, or Endangered by federal and state resource agencies, are associated with coastal sage scrub (NCCPAP 1992). The primary threat to most of these species is loss of habitat. Various sources estimate that 70 to 90 percent of



- | | |
|---|---|
|  Coastal Sage Scrub (CSS) 5.60 acres |  CSS w/ Ruderal Grassland 4.79 acres |
|  Ruderal Grassland 3.34 acres |  Southern Alluvial Fan Scrub 0.26 acres |
|  Landscaping 1.51 acres |  Mule Fat Scrub 0.15 acres |
|  Ruderal Grassland w/ CSS 43.25 acres |  Developed 2.22 acres |
|  Ruderal Grassland w/ CSS and Landscaping 6.84 acres | |

Onsite Vegetation Communities

Source: Land Design Consultants, Inc.

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the historic distribution of the habitat in Southern California has been eliminated by agricultural and urban development. In his review of the status of the California Gnatcatcher, Atwood quotes leading plant ecologists on the status of coastal sage scrub (Atwood 1990):

Klopatek et. al. concluded that coastal sagebrush present in 1967 showed a 37% decrease relative to its potential area (1979). Hanes stated the coastal sage scrub community is the most endangered vegetative type in Southern California due to the pressures of urbanization, flood control projects and rock quarries (1976). Kirkpatrick and Hutchenson (1977) described coastal sage scrub as one of the least known and fastest disappearing types of vegetation in California and Axlerod observed that the community is rapidly disappearing under spreading urbanization (1978). Mooney noted that coastal sage scrub often occupies choice development sites and is being destroyed over large areas of the state (1977). Westman (1981) calculated that coastal sage scrub in California had been reduced to 10-15% of its former extent (1981). Because this calculation presumably included the Diablan coastal sage scrub association that occurs in the comparatively undeveloped portion of coastal California north of Ventura County, this relative degree of coastal sage scrub loss in Southern California may be even higher. Westman believed coastal sage scrub to be one of the most endangered habitat types in the nation (1987). O'Leary concluded that the present decade likely represents an 'eleventh-hour' period for the imperiled plant community (1990).

The widely recognized decline of the Venturan coastal sage scrub, coupled with the decline of many animal species dependent on the habitat, has led to the presence of Venturan coastal sage scrub on a site becoming a serious constraint to development. This, in turn, has led to the development of the Natural Community Conservation Planning/Coastal Sage Scrub project (NCCP). The purpose of the NCCP is to develop a plan or procedure that would allow the systematic evaluation of the remaining coastal sage scrub in the state and direct the development of a plan for the preservation of the habitat. Generally the plan is to preserve enough of the habitat in designated preservation areas to preserve all of its component species as well. If it can be demonstrated that the habitat and component species are no longer threatened due to their preservation in designated areas, then the remaining habitat would not be protected. The NCCP has been implemented in San Diego and Orange Counties, but Los Angeles and Ventura Counties have not yet developed a regional conservation plan for the habitat. Even where the NCCP has been implemented, the results of the plan are not yet evident. This lack of evidence regarding the success of the NCCP leads to the conclusion that Venturan coastal sage scrub is still an imperiled habitat.

Ruderal Grassland (Non-native Grassland 42.000.00)

Areas that are defined as ruderal grassland are strongly dominated by species that are associated with this community. Dominance is based primarily on the coverage of the ruderal species compared with species associated with our communities.

Ruderal grassland communities are found on **3.34 acres** (4.91%) of the project site in areas that have undergone past disturbances. Ruderal grassland species are typically nonnative, herbaceous annuals that displace native species. The most abundant ruderal grassland species onsite are red brome, wild oat (*Avena fatua*), longbeak stork's bill, shortpod mustard, and black mustard (*Brassica nigra*).

Landscaping

Areas that are defined as landscaping are strongly dominated by species that are associated with this community. Dominance is based primarily on the coverage of the landscaping species compared with species associated with our communities.

Landscaped areas are found on **1.51 acres** (2.22%) of the project site. This community type occurs onsite around the single-family residential structure in the northeast corner. The most abundant plants used for landscaping are primarily trees that include privets (*Ligustrum* sp.), Aleppo pine (*Pinus halepensis*), Peruvian pepper (*Schinus molle*), carrotwood (*Cupaniopsis anacardiopsis*), and Mexican fan palm (*Washingtonia robusta*).

Ruderal Grassland with CSS Elements/Ruderal with Landscaping & CSS Elements

Areas that are defined as Ruderal Grassland with CSS Elements and Ruderal Grassland with Landscaping and CSS Elements are those areas with greater than 50% coverage from nonnative, herbaceous annuals, but woody and semi-woody shrubs associated with CSS or ornamentals used for landscaping occur infrequently and do not define the structure of the community.

Ruderal Grassland with CSS Elements communities are found on **43.25 acres** (63.65%) of the project site in areas that have undergone past disturbances.

Ruderal Grassland with Landscaping and CSS Elements communities are found on **6.84 acres** (10.06%) of the project site in areas that have undergone past disturbances.

CSS with Ruderal Grassland Elements

Areas that are defined as CSS with Ruderal Grassland Elements are those areas with greater than 50% coverage from woody and semi-woody shrubs associated with CSS, with the coverage in between the shrubs dominated by nonnative, herbaceous annual plant species.

CSS with Ruderal Grassland Elements communities are found on **4.79 acres** (7.05%) of the project site in areas that have undergone past disturbances.

Mule Fat Scrub (Mulefat Scrub 63.510.00)

Mule fat scrub is present on **0.15 acres** (0.22%) of the project site within the northern and southern portions of the channelized drainage. The habitat is a poorly developed, tall, riparian scrub that is strongly dominated by mule fat (*Baccharis salicifolia*). Other shrubs present include Pacific willow (*Salvia lasiandra* var. *lasiandra*), California sagebrush, and blue elderberry.

This early seral community is maintained by frequent flooding. Absent this, most stands would succeed to cottonwood or sycamore dominated riparian forests or woodlands. The habitat is found in intermittent stream channels that have fairly coarse substrate and moderate depth to the water table. It frequently occurs as a patchy understory in light gaps in sycamore alluvial woodland, especially under heavy grazing. The habitat is widely scattered along intermittent streams and near larger rivers from about Tehama County south through the Coast Ranges and Sierra Nevada to San Diego and northwestern Baja California Norte, usually below about 2,000 feet (Holland 1986).

Southern Alluvial Fan Scrub (Scalebroom Scrub 32.070.00)

Southern alluvial fan scrub is present on **0.26 acres** (0.38%) of the project site confined to the northwest corner in the wash of the unnamed blueline stream. This area is composed of sandy, alluvial soils and was primarily devoid of vegetation, with the exception of a few white sage, scalebroom (*Lepidospartum squamatum*), and blue elderberry.

Southern alluvial fan scrub is an open to moderately dense vegetation community composed of broad-leaved phreatophyte evergreen scrub that attains a height of 3-5 feet. It is dominated by scalebroom, which is primarily restricted to floodplains, although it occurs rarely in other habitats. Common subdominant shrub species that are found in the community include California sagebrush or *Artemisia tridentata* ssp. *parishii* (limited distribution; mainly with desert affinities), plus blue elderberry and various coastal sage scrub and chaparral species. The open understory areas are typically dominated by ruderal herbaceous species (native and non-native) usually associated with grassland communities. Scattered riparian trees and shrubs are often found in association with scalebroom and include western sycamore (*Platanus racemosa*), mule fat, and sometimes Fremont's cottonwood (*Populus fremontii*). Southern alluvial fan scrub is likely an early seral stage of Riversidian Alluvial Fan Sage Scrub (Magney 1992).

Southern alluvial fan scrub is primarily restricted to floodplain habitats that flood occasionally (5-10 years) and have a substrate that contains riverine cobbles, boulders, and sand. Many upland species become established in the streamside habitat due to the flood occurrences. The occasional flooding and sediment reworking, however, is the driving force that maintains this vegetation type (Magney 1992). Southern alluvial fan scrub occurs in central and southern cismontane California from the Monterey Bay area to northern Baja California. It was formerly extensive along floodplain habitats of

southern and central California, but it is now very much reduced by flood control, agriculture, and urban expansion (Magney 1992).

The California Department of Fish and Game considers scalebroom scrub vegetation community a high priority for inventory in the CNDDDB, due to its rarity and threats to it. Lead and trustee agencies may request that impacts to these communities be addressed in environmental documents.

General Wildlife

In natural environments many wildlife species may be habitat specialists; however, most wildlife species are not restricted to a single vegetation community, occurring instead in several communities, especially those of similar species composition and physical structure. Some animals, birds, and wide-ranging mammals in particular, may utilize an array of dissimilar communities for forage and cover. Wildlife diversity is high in southern California due to the convergence of the multiple biomes, varied topography of the region, and the resulting mix of vegetation communities.

The following paragraphs list some of the species of the different types of wildlife that were either observed (°) or are expected to occur (°) on the project site. For a comprehensive list, see **Appendix 1**.

Fish

No permanent aquatic resources exist on the project site and the drainages onsite do not have a viable connection to habitable water bodies or watercourses (including the Arroyo Simi) that would allow fish to migrate onto the site, so no fish species are expected to occur.

Amphibians

Amphibians observed during the surveys or expected to occur within or in the immediate vicinity of the project site (due to the presence of the habitat elements with which the species are typically associated and the project site is within the range of the species) include:

- black-bellied slender salamander (*Batrachoseps nigriventris*)[°];
- California toad (*Bufo boreas halophilus*)[°]; and
- Pacific treefrog (*Pseudacris regilla*)[°].

Reptiles

Common and abundant reptiles observed during the surveys or expected to occur within or in the immediate vicinity of the project site (due to the presence of the habitat elements with which the species are typically associated and the project site is within the range of the species) include:

- Great Basin fence lizard (*Sceloporus occidentalis longpipes*)^o;
- western side-blotched lizard (*Uta stansburiana elegans*)^o;
- San Diego gopher snake (*Pituophis catenifer annectens*)^e; and
- southern Pacific rattlesnake (*Crotalus oreganus helleri*)^e.

Birds

Common and abundant birds observed during the surveys include:

- red-tailed hawk (*Buteo jamaicensis*);
- American kestrel (*Falco sparverius*);
- California quail (*Callipepla californica*);
- mourning dove (*Zenaida macroura*);
- Anna's hummingbird (*Calypte anna*);
- northern flicker (*Colaptes auratus*);
- Say's phoebe (*Sayornis saya*);
- Bewick's wren (*Thryomanes bewickii*);
- yellow-rumped warbler (*Dendroica coronata*);
- white-crowned sparrow (*Zonotrichia leucophrys*);
- California towhee (*Pipilo crissalis*);
- savannah sparrow (*Passerculus sandwichensis*);
- western meadowlark (*Sturnella neglecta*);
- lesser goldfinch (*Carduelis psaltria*); and
- house finch (*Carpodacus mexicanus*).

Common and abundant birds observed during the surveys that are expected to nest on the project site due to the necessary habitat elements being present include:

- California quail;
- mourning dove;
- Anna's hummingbird;
- Bewick's wren;
- yellow-rumped warbler;
- California towhee;
- lesser goldfinch; and
- house finch.

Mammals

Common and abundant mammals observed during the surveys or expected to occur as transients within or in the immediate vicinity of the project site (due to the presence of the habitat elements with which the species are typically associated and the project site is within the range of the species) include:

- desert cottontail (*Sylvilagus audubonii*)^o;
- California ground squirrel (*Spermophilus beecheyi*)^o;
- house mouse (*Mus musculus*)^e
- deer mouse (*Peromyscus maniculatus*)^e;
- California mouse (*Peromyscus californicus*)^e;
- coyote (*Canis latrans*)^o;
- raccoon (*Procyon lotor*)^o; and
- striped skunk (*Mephitis mephitis*)^o.

In addition to the listed mammals, the project site is likely used by a variety of bats for foraging.

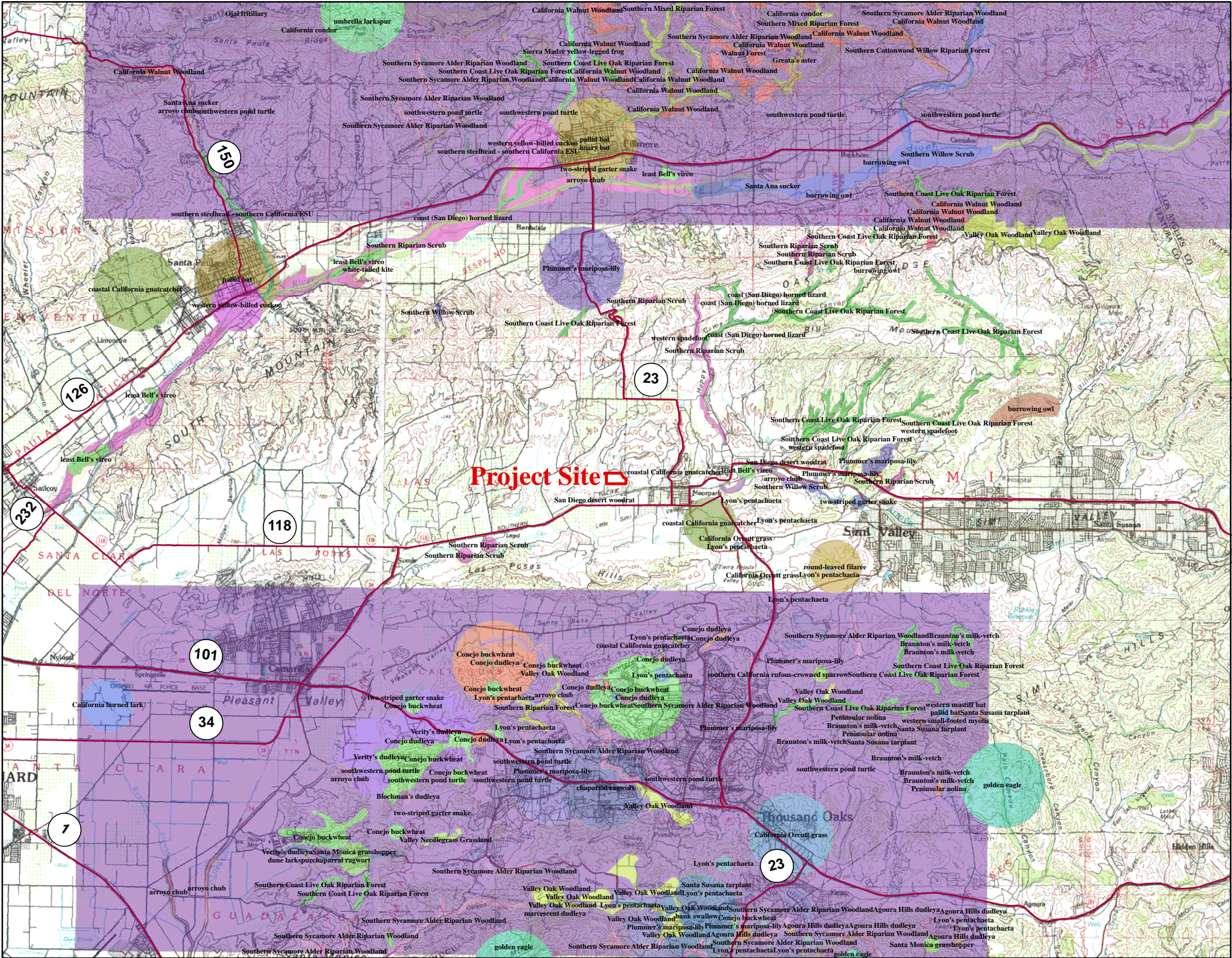
Sensitive Biological Resources

This section discusses the sensitive biotic resources reported in the vicinity of the project site and their known or expected onsite status. The status of each resource was determined by consideration of: known preferred ecologic parameters and direct observation for plants, known habitat preferences and direct observation for faunal components, and direct observation for habitat types.

There are 72 biotic elements (26 plants, 33 animals, and 13 habitat types.) considered sensitive by resource management organizations and known to occur in the region (see **Figure 4**). This determination is based on local knowledge of LDC biologists and searches of appropriate references and databases. **Table 1, 2, and 3** summarizes the results of the evaluation for the sensitive biotic resources reported or known to occur in the vicinity of the project site (considered to be the USGS 7.5 *Moorpark* quad and the surrounding 8 quads), its status with the different government agencies and conservation organizations, and its expected occurrence onsite. The individual species accounts (found in **Appendix 2**) give greater detail of the natural history of the plant or animal in the region, which were used in the determination of the species presence within the project site.

General sources used for the determination of sensitive biological resources and their potential presence onsite are as follows: **wildlife** - U.S. Fish and Wildlife Service (FWS) (2008), California Department of Fish and Game (1980, 1989,) California Natural Diversity Data Base (CNDDB 2008, Remsen (1978), and Partners in Flight (2006); **plants** - FWS (2008), CDFG (1989, 2008), CNDDB (2008), and California Native Plant Society (CNPS, 2008) (Smith and Berg 1988); and **habitats** - CNDDB (2008) and Holland (1986). Sources for the individual species are listed on their species account page in **Appendix 2**.

Figure 4



- Sensitive Species**
- Abrams' oxytheca
 - Agoura Hills dudleya
 - American badger
 - Blochman's dudleya
 - Braunton's milk-vetch
 - California Orcutt grass
 - California Walnut Woodland
 - California condor
 - California horned lark
 - Conejo buckwheat
 - Conejo dudleya
 - Greata's aster
 - Lyon's pentachaeta
 - Ojai fritillary
 - Peninsular nolina
 - Plummer's mariposa-lily
 - Riverside fairy shrimp
 - Ross' pitcher sage
 - San Diego desert woodrat
 - Santa Ana sucker
 - Santa Monica grasshopper
 - Santa Susana tarplant
 - Sierra Madre yellow-legged frog
 - Southern Coast Live Oak Riparian Forest
 - Southern Cottonwood Willow Riparian Forest
 - Southern Mixed Riparian Forest
 - Southern Riparian Forest
 - Southern Riparian Scrub
 - Southern Sycamore Alder Riparian Woodland
 - Southern Willow Scrub
 - Valley Needlegrass Grassland
 - Valley Oak Woodland
 - Verity's dudleya
 - Walnut Forest
 - arroyo chub
 - bank swallow
 - burrowing owl
 - chaparral ragwort
 - coast (California) horned lizard
 - coast (San Diego) horned lizard
 - coastal California gnatcatcher
 - coastal western whiptail
 - dune larkspur
 - golden eagle
 - hoary bat
 - least Bell's vireo
 - marcescent dudleya
 - pallid bat
 - round-leaved filaree
 - southern California rufous-crowned sparrow
 - southern steelhead - southern California ESU
 - southern tarplant
 - southwestern pond turtle
 - two-striped garter snake
 - umbrella larkspur
 - western mastiff bat
 - western small-footed myotis
 - western spadefoot
 - western yellow-billed cuckoo
 - white-tailed kite
 - woven-spored lichen

Locally Recorded Sensitive Species Occurrences

Source: CDFG's CNDDDB and USGS

Baher Property
A.P.N. 5110-190-285 and -305

Table 1: Sensitive plants known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	NatureServe	CNPS
Woven-spored lichen	<i>Texosporium sancti-jacobi</i>	N	--	--	G3/S1.1	--
Southern Tarplant	<i>Centromadia parryi</i> ssp. <i>australis</i>	N	--	--	G4T2/S2.1	1B.1
Santa Susana Tarplant	<i>Deinandra minthornii</i>	N	-	R	G2/S2.2	1B.2
Lyon's Pentachaeta	<i>Pentachaeta lyonii</i>	N	E	E	G1/S1.1	1B.1
White Rabbit Tobacco	<i>Pseudognaphalium leucocephalum</i>	P	--	--	G4/S3.2	2.2
Chaparral Ragwort	<i>Senecio aphanactis</i>	N	--	--	G3/S1.2	2.2
Greata's Aster	<i>Symphyotrichum greatae</i>	N	--	--	G2/S2.3	1B.3
Blochman's Dudleya	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	N	--	--	G2T2/S2.1	1B.1
Agoura Hills Dudleya	<i>Dudleya cymosa</i> ssp. <i>agourensis</i>	N	T	--	G5T1/S1.2	1B.2
Marcescent Dudleya	<i>Dudleya cymosa</i> ssp. <i>marcescens</i>	N	T	R	G5T2/S2.2	1B.2
Conejo Dudleya	<i>Dudleya parva</i>	N	T	--	G2/S2.1	1B.2
Verity's Dudleya	<i>Dudleya verityi</i>	N	T	--	G1/S1.1	1B.2
Braunton's Milk-vetch	<i>Astragalus brauntonii</i>	N	E	--	G2/S2.1	1B.1
Round-leaved Filaree	<i>California macrophyllum</i>	N	--	--	G3/S3.1	1B.1

Table 1: Sensitive plants known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	NatureServe	CNPS
Ross' Pitcher Sage	<i>Lepechinia rossii</i>	N	--	--	G1/S1.2	1B.2
Abrams' Oxytheca	<i>Acanthoscyphus parishii</i> var. <i>abramsii</i>	N	--	--	G4?T2/S2.2	1B.2
Conejo Buckwheat	<i>Eriogonum crocatum</i>	N	--	R	G2/S2.1	1B.2
Dune Larkspur	<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	N	--	--	G4T2/S2.2	1B.2
Umbrella Larkspur	<i>Delphinium umbraculorum</i>	N	--	--	G2G3/S2S3.3	1B.3
Mesa Horkelia	<i>Horkelia cuneata</i> ssp. <i>puberula</i>	N	--	--	G4T2/S2.1	1B.1
Plummer's Mariposa Lily	<i>Calochortus plummerae</i>	P	--	--	G3/S3.2	1B.2
Late-flowered Mariposa Lily	<i>Calochortus weedii</i> var. <i>vestus</i>	N	--	--	G3G4T2/S2.2	1B.2
Ojai Fritillary	<i>Fritillaria ojaiensis</i>	N	--	--	G1/S1.2	1B.2
Vernal Barley	<i>Hordeum intercedens</i>	N	--	--	G3G4/S3S4	3.2
Chaparral Nolina	<i>Nolina cismontane</i>	N	--	--	G1/S1.1	1B.2
California Orcutt Grass	<i>Orcuttia californica</i>	N	E	E	G2/S2.1	1B.1

Table 2: Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations
INVERTEBRATE							
Riverside Fairy Shrimp	<i>Streptocephalus woottoni</i>	N	E	--	--	G1/S1	IUCN: EN
Santa Monica Grasshopper	<i>Trimerotropis occidentaloidea</i>	U	--	--	--	G1G2/S1S2	IUCN: EN
FISH							
Arroyo Chub	<i>Gila orcutti</i>	N	--	--	SSC	G2/S2	USFS: S
Santa Ana Sucker	<i>Catostomus santaanae</i>	N	T	--	SSC	G1S1	IUCN: VU USFS: S
Southern Steelhead	<i>Oncorhynchus mykiss irideus</i>	N	E	--	SSC	G5T2Q/S2	-
AMPHIBIANS							
Western Spadefoot	<i>Spea hammondi</i>	P	--	--	SSC	G3/S3	BLM: S IUCN: NT
Sierra Madre Yellow-legged Frog	<i>Rana muscosa</i>	N	E	--	--	G1/S1	IUCN: VU USFS: S
California Red-legged Frog	<i>Rana aurora draytonii</i>	N	T	--	SSC	G4T2T3/S2S3	IUCN: NT

Table 2: Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations
REPTILES							
Southwestern Pond Turtle	<i>Actinemys marmorata pallida</i>	N	--	--	SSC	G3G4T2T3Q/S2	BLM: S IUCN: VU
Coast (San Diego) Horned Lizard	<i>Phrynosoma coronatum blainvillei</i>	P	--	--	SSC	G4G5/S3S4	BLM: S
Coast (California) Horned Lizard	<i>Phrynosoma coronatum frontale</i>	P	--	--	SSC	G4G5/S3S4	BLM: S
Coastal Western Whiptail	<i>Aspidoscelis tigris stejnegeri</i>	P	--	--	--	G5T3T4/S2S3	--
Two-striped Garter Snake	<i>Thamnophis hammondi</i>	N	--	--	SSC	G3/S2	BLM: S IUCN: DD USFS: S
BIRDS							
California Condor	<i>Gymnogyps californianus</i>	N	E	E	--	G1/S1	ABC: GL Audubon: WL CDF: S IUCN: CR USBC: WL
Sharp-shinned Hawk	<i>Accipiter striatus</i>	OT	--	--	WL	G5/S3	IUCN: LC
Cooper's Hawk	<i>Accipiter cooperii</i>	OT	--	--	WL	G5/S3	IUCN: LC

Table 2: Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations
Golden Eagle (nesting and wintering)	<i>Aquila chrysaetos</i>	PT	--	--	FP/SSC	G5/S3	BLM: S CDF: S IUCN: LC USFWS: BCC
White-tailed Kite (nesting)	<i>Elanus leucurus</i>	PT	--	--	FP	G5T3Q/S1	--
Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	N	C	E	--	G5T3Q/S1	IUCN: LC USFS: S USFWS: BCC
Burrowing Owl	<i>Athene cunicularia hypugaea</i>	N	--	--	SC	G4/S2	BLM: S IUCN: LC USFWS: BCC
Allen's Hummingbird	<i>Selasphorus sasin</i>	O	--	--	--	G5/SNR	Audubon: WL IUCN: LC USBC: WL
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	N	E	E	--	G5T2/S2	ABC: GL Audubon: WL IUCN: NT USBC: WL USFWS: BBC
California Horned Lark	<i>Eremophila alpestris actia</i>	N	--	--	WL	G5T3Q S3	IUCN: LC
Bank Swallow (nesting)	<i>Riparia riparia</i>	N	--	T	--	G5/S2S3	IUCN: LC

Table 2: Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.

Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations
Coastal California Gnatcatcher	<i>Poliophtila californica californica</i>	P	T	--	SC	G3T2/S2	ABC: GL Audubon: WL IUCN: LC USBC: WL
Southern California Rufous-crowned Sparrow	<i>Aimophila ruficeps canescens</i>	O	--	--	WL	G5T2T4/S2S3	IUCN: LC
Lark Sparrow	<i>Chondestes grammacus</i>	O	--	--	--	G5/SNR	--
MAMMALS							
Hoary Bat	<i>Lasiurus cinereus</i>	PT	--	--	SC	G5/S4?	IUCN: VU WBWG: H
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	PT	--	--	-	G5/S2S3	BLM: S IUCN: VU WBWG: H
Pallid Bat	<i>Antrozous pallidus</i>	PT	--	--	SC	G5/S3	BLM: S IUCN: LC USFS: S WBWG: H
Western Mastiff Bat	<i>Eumops perotis californicus</i>	PT	--	--	SC	G5T4/S3?	BLM: S IUCN: VU WBWG: H
San Diego Desert Woodrat	<i>Neotoma lepida intermedia</i>	N	--	--	SC	G5T3?/S3?	IUCN: DD
American Badger	<i>Taxidea taxus</i>	N	--	--	SC	G5/S4	IUCN: LC

Table 3: Sensitive vegetation communities and habitats known to occur in the vicinity of the project site		
Vegetation Community/Habitat	Presence Onsite	NatureServe
California Walnut Woodland	N	G2/S2.1
Coastal Sage (Chaparral) Scrub	O	G3/S3.2
Mule Fat Scrub	O	G4/S4
Scalebroom Scrub (Southern Alluvial Fan Scrub)	O	--
Southern Coast Live Oak Riparian Forest	N	G4/S4
Southern Cottonwood Willow Riparian Forest	N	G3/S3.2
Southern Mixed Riparian Forest	N	G2/S2.1
Southern Riparian Forest	N	G4/S4
Southern Riparian Scrub	N	G3/S3.2
Southern Sycamore Alder Riparian Woodland	N	G4/S4
Southern Willow Scrub	N	G3/S2.1
Valley Needlegrass Grassland	N	G1/S3.1
Valley Oak Woodland	N	G1/S2.1
Walnut Forest	N	G1/S1.1

FOOTNOTES FOR SENSITIVE BIOLOGICAL RESOURCES -- Tables 1-3

Presence Onsite

- O Species **O**ccurs onsite as a year-round resident or breeds onsite.
- L Species **L**ikely occurs onsite.
- P Species **P**ossibly may occur onsite.
- PT Species **P**ossibly may occur onsite as a **T**ransient. For birds and bats – no nesting/roosting habitat occurs onsite.
- U Species is **U**nlikely to occur onsite.
- N **N**o occurrence onsite.
- Un Data for the species is limited and its natural history has not been fully described.
- N[†] **N**o occurrence onsite and no species account provided because the sensitive resource has no possibility of occurrence onsite.
- T Indicates species are **T**ransient
- E For habitats, **E**lements of the habitat occur onsite.

Federal Status – The Federal Endangered Species Act is administered by the United States Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration Fisheries (NOAA).

- E Endangered: Species is in immediate danger of extirpation or extinction from existing pressures.
- T Threatened: Species not presently in eminent danger of extinction, but is likely to become an Endangered species in the foreseeable future in the absence of special protection and management efforts.
- C Candidate: Candidate species are plants and animals for which the Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities.
- D Delisted: Species is no longer in immediate danger of extirpation or extinction nor is it likely to reach this status in the foreseeable future. Delisted species are monitored according to a post-delisting monitoring plan.

State Status – The California Endangered Species Act of 1984 (CESA) (Fish & Game Code §§2050, *et seq.*) and the Native Plant Protection Act of 1977 (NPPA) (Fish & Game Code §§1900-1913) generally parallel the main provisions of the Federal Endangered Species Act and are administered by the California Department of Fish and Game.

- E Endangered: a species of plant, fish, or wildlife which is "in serious danger of becoming extinct throughout all, or a significant portion of its range." This designation is limited to species or subspecies native to California. (CESA)
- T Threatened: a native species or subspecies of a bird, mammal, fish amphibian, reptile or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts. (CESA)
- R Rare: (applies to plants only) a species, subspecies, or variety is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. (This designation was replaced by "threatened" for all animal species in 1985) (NPPA)

CDFG - The Wildlife Branch, Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, reptiles, and amphibians. The Fisheries Branch is responsible for updates to the Fish Species of Special Concern document.

SSC: Species of Special Concern; native species not having state or federal Threatened or Endangered Species status, but thought to warrant monitoring due to declining population numbers. (Includes those species tracked in the CNDDDB but not given any other special status.)

FP: Fully Protected; The classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state^{and}/or federal endangered species acts. The Fish and Game Code sections dealing with Fully Protected species state that these species "....may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "Fully Protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003 the code sections dealing with fully protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species.

WL: Watch List. The species warrants further monitoring and review, but no actions or legal protection are given.

NatureServe – The California Department of Fish and Game maintains the California Natural Diversity Database (CNDDDB) in conjunction with NatureServe to help drive conservation decisions, aid in the environmental review of projects and land use changes, and provide baseline data helpful in recovering endangered species and for research projects. NatureServe ranks are shorthand formulas that provide information on the rarity of a species or subspecies, both throughout its global range and its range within the State.

GLOBAL RANKS*: Worldwide status of a full species: G1 to G5

G1 = Extremely endangered: <6 viable occurrences (EO's) or <1,000 individuals, or < 2,000 acres of occupied habitat

G2 = Endangered: about 6-20 EO's or 1,000 - 3,000 individuals, or 2,000 to 10,000 acres of occupied habitat

G3 = Restricted range, rare: about 21-80 EO's, or 3,000 – 10,000 individuals, or 10,000 – 50,000 acres of occupied habitat

G4 = Apparently secure; some factors exist to cause some concern such as narrow habitat or continuing threats

G5 = Demonstrably secure; commonly found throughout its historic range

STATE RANKS*: Statewide status of a full species or a subspecies: S1 to S5

Same general definitions as global ranks, but just for the range of the taxa within California.

T-RANKS*: Status of a subspecies throughout its range: T1 to T5

A subspecies is given a T-rank. This is attached to the G-rank for the full species. The S-rank, in this case, will refer to the status of the subspecies within California. The T-rank has the same general definitions as the global ranks.

* Uncertainty about the rank of an element is expressed in two major ways: by expressing the rank as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3) or by adding a ? to the rank (eg., S2? Indicates more certainty than S2S3, but less than S2).

Q Questionable taxonomy: Taxonomic distinctiveness of this entity at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or the inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority conservation priority.

CNPS – The California Native Plant Society tracks the conservation status of hundreds of plant species and maintains the CNPS *Inventory of Rare and Endangered Plants of California*. The CNPS Rare Plant Program's data are widely accepted as the standard for information on the rarity and endangerment status of the California flora.

1A CNPS Priority List 1A: plant presumed extinct in CA.

1B CNPS Priority List 1B: plant Rare, Threatened, or Endangered in CA and elsewhere; eligible for state listing.

2 CNPS Priority List 2: plant rare, threatened, or Endangered in CA, but more common elsewhere; eligible for state listing.

3 CNPS Priority List 3: more information is needed about this species; some eligible for state listing.

4 CNPS Priority List 4: on watch list for plants of limited distribution.

The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking as follows:

.1 - Seriously threatened in California (high degree/immediacy of threat)

.2 - Fairly threatened in California (moderate degree/immediacy of threat)

.3 - Not very threatened in California (low degree/immediacy of threats or no current threats known)

Other Organizations

ABC: Green list - The American Bird Conservancy Green List contains all the highest priority birds for conservation in the continental U.S. and Canada. It builds on the species assessments conducted for many years by Partners in Flight for land birds and expands it to include shorebirds, waterbirds, and waterfowl.

BLM: S - Bureau of Land Management Sensitive. BLM Manual §6840 defines sensitive species as "...those species that are (1) under status review by the FWS/NMFS; or (2) whose numbers are declining so rapidly that Federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats." Existing California-BLM policy concerning the designation of sensitive species identifies two conditions that must be met before a species may be considered as BLM sensitive: (1) a significant population of the species must occur on BLM-administered lands, and (2) the potential must exist for improvement of the species' condition through BLM management. The "Sensitive Species" designation is not meant to include federally listed species, proposed species, candidate species or State listed species. It is BLM policy to provide sensitive species with the same level of protection that is given federal candidate species.

FS: S – Forest Service: Sensitive: The USDA Forest Service defines sensitive species as those plant and animal species identified by a regional forester that are not listed or proposed for listing by the federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

FWS: BCC - Fish and Wildlife Service: Birds of Conservation Concern: The goal of the Birds of Conservation Concern 2002 report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent our highest conservation priorities and draw attention to species in need of conservation action.

IUCN - The World Conservation Union, through its Species Survival Commission assess, on a global scale, the conservation status of species, subspecies, varieties, and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation.

DD Data Deficient: inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status.

EN Endangered: faces very high risk of extinction in the wild

LC Least Concern: does not qualify for Critically Endangered, Endangered, Vulnerable, or Near Threatened.

LR/LC Lower Risk: has been evaluated and does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.

Subcategory: Least Concern (taxa which do not qualify for Conservation Dependent or Near Threatened).

LR/NT Lower Risk: has been evaluated and does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.

Subcategory: Near Threatened (taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable).

NT Near Threatened: is close to qualifying for or is likely to qualify for a threatened category in the near future.

VU Vulnerable: faces high risk of extinction in the wild.

There is an additional hierarchical alphanumeric system of criteria and subcriteria for those species that qualify as Threatened (eg. VU/B1+2c). Please refer to *The IUCN Red List of Threatened Species 2001 Categories and Criteria* (v. 3.1) for further details (<http://www.redlist.org/>).

WBWG - The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and Provinces of British Columbia and Alberta, and Northern Mexico.

High (H) Priority: Species considered the highest priority for funding, planning, and conservation actions based on species distribution, status, ecology and known threats (Imperiled)

Medium (M) Priority: Species that warrant closer evaluation, more research, and conservation actions of both the species and possible threats, generally due to a lack of meaningful information about the species.

Low (L) Priority: Current information indicates that the population is stable and major changes in status in the near future are unlikely, although there may be localized concerns and conservation actions would still apply.

Xerces - The Xerces Society Red list of pollinators. The Xerces Society is an international non-profit organization dedicated to protecting biological diversity through invertebrate conservation.

CI Critically Imperiled: At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

Note: range designations for plant species in the species accounts follow the Jepson Manual designations.

Sensitive Plant Species & the Project Site

The following discussion provides a brief summary of the results of detailed analysis made for each of the sensitive plant species known to occur in the vicinity of the project site. Only the plant species that occur, are possible, or whose absence cannot be confirmed are discussed. For the other species that are presumed not to occur in the project site, their absence is due to the lack of the necessary vegetation communities and habitat elements that are typically associated with the species. For a more complete analysis of all the species please refer to **Appendix 2**.

No plant species listed as Rare, Threatened, or Endangered was found on the project site and none are expected to occur. Other plant species included in the California Natural Diversity Database, while not directly protected by State or Federal law, are considered sensitive and are listed by other recognized organizations, primarily the California Native Plant Society.

White Rabbit Tobacco – Possible on the Project Site

The species is possible onsite because the site does have the vegetation communities and habitat elements associated with the species in the sandy wash area in the northwest portion of the property. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site.

Plummer's Mariposa Lily – Possible on the Project Site

Although the species was not observed during the surveys of the project site, or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site, the site does have the vegetation communities and habitat elements associated with the species. Additionally, nine (9) occurrences of the species have been recorded in the CNDDDB within 12 miles of the project site, with the nearest populations located approximately 4 miles to the east and 4 miles to the north.

Sensitive Wildlife Species & the Project Site

The following discussion provides a brief summary of the results of detailed analysis made for each of the sensitive wildlife species known to occur in the vicinity of the project site. Only the wildlife species that occur, are possible, or whose absence cannot be confirmed are discussed. For the other species that are presumed not to occur in the project site, their absence is due to the lack of the necessary vegetation communities and habitat elements that are typically associated with the species. For a more complete analysis of each species please refer to **Appendix 2**.

No wildlife species listed as Rare, Threatened, or Endangered was located on the project site, but one (1) federally listed Threatened species, coastal California gnatcatcher, is possible.

Coastal California Gnatcatcher – Possible on the Project Site

Although the species was not observed during the surveys of the project site, coastal sage scrub dominated by California sagebrush does occur onsite that could be utilized by the species. Four (4) occurrences of the species have been recorded in the CNDDDB within 10 miles of the project site, with the nearest occurrences located approximately 1.5 miles to the east. Additionally, the USFWS has designated several units of critical habitat for the species that are within 2.5 miles of the site. See **Figure 5**.

Other wildlife species included in the California Natural Diversity Database, while not directly protected by State or Federal law, are considered sensitive and are listed by other recognized organizations, primarily the California Department of Fish and Game.

Allen's Hummingbird, Southern California Rufous-crowned Sparrow, & Lark Sparrow – Occur on the Project Site

The three (3) species were observed on the project site during the surveys and habitat is available onsite for nesting for each species.

Sharp-shinned Hawk – Occurs as a Transient on the Project Site

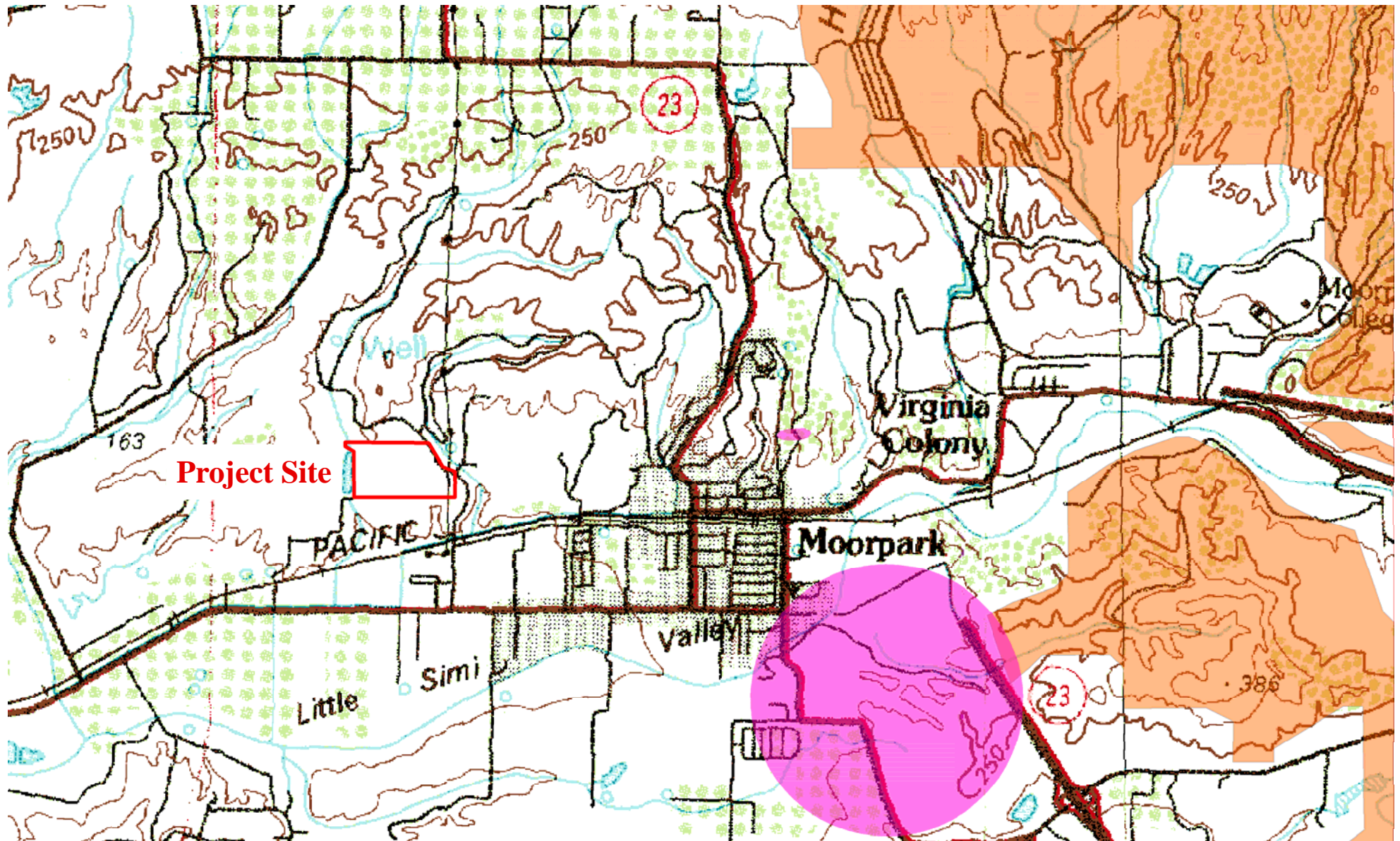
The species was observed foraging over the site during surveys; however, the lack of dense riparian woodland habitat makes it very unlikely that the species would nest onsite.



Cooper's Hawk – Occurs as a Transient on the Project Site

The species was observed foraging over the site during surveys; however, the lack of dense woodland habitat makes it unlikely that the species would nest onsite.

Western Spadefoot – Possible on the Project Site

Although the species was not observed during the surveys of the project site, the weather conditions during the surveys were not conducive for the species to be active aboveground. The species may possibly occur in the unnamed wash and associated upland areas in the northwest corner of the site. The species has been recorded in the Arroyo Simi watershed and water flow in the unnamed wash on the northwest corner of the site could establish pools that the species could use for breeding. The species would not be active except during a season of exceptional rainfall that allowed temporary pools to persist for 3 to 6 weeks. Additionally, three (3) occurrences of the species have been recorded in the CNDDDB within 8 miles of the project site, with the nearest located approximately 3.5 miles to the northeast.



-  Coastal California Gnatcatcher Occurrences from the CNDDDB
-  USFWS Designated Critical Habitat for Coastal California Gnatcatcher

Recorded Coastal California Gnatcatcher Occurrences and Designated Critical Habitat

Source: CDFG, USFWS, and USGS

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Coast (San Diego) Horned Lizard – Possible on the Project Site

Although the species was not observed during the surveys of the project site, the temperatures during the surveys were not conducive for reptile activity. The species may possible occur in the unnamed wash on the northwest corner of the site. Additionally, four (4) occurrences of the species have been recorded in the CNDDDB within 8 miles of the project site in similar habitat, with the nearest located approximately 4 miles to the northeast.

Coast (California) Horned Lizard – Possible on the Project Site

Although the species was not observed during the surveys of the project site, the temperatures during the surveys were not conducive for reptile activity. The species may possible occur in the unnamed wash on the northwest corner of the site. Additionally, one (1) occurrence of the species has been recorded in the CNDDDB within 5 miles to the east of the project site in similar habitat. Note: Brattstrom (1997) found *Phrynosoma coronatum blainvillei* and *Phrynosoma coronatum frontale* to be synonyms of *Phrynosoma coronatum*. The subspecies are no longer recognized in the scientific domain, but are listed separate in this report to be in concurrence with the CDFG's listing of both subspecies.

Coastal Western Whiptail – Possible on the Project Site

Although the species was not observed during the surveys of the project site, the temperatures during the surveys were not conducive for reptile activity. The species may possibly occur in the unnamed wash on the northwest corner of the site. Additionally, four (4) occurrences of the species have been recorded in the CNDDDB within 12 miles of the project site in similar habitat, with the nearest located approximately 5 miles to the east.

White-tailed Kite & Golden Eagle – Possible as Transients on the Project Site

The two (2) species may forage on the site as transients, but they are unlikely to nest onsite due to a lack of appropriate habitat.

Hoary Bat, Western Small-footed Myotis, Pallid Bat, & Western Mastiff Bat - Possible as Transients on the Project Site

The four (4) species were not observed roosting in the abandoned structures and trees onsite and the site lacks rocky areas with crevices that could be used. It is possible for the species to forage on the site due to the occurrence of roosting habitat in the vicinity of the project site.

Sensitive Vegetation Communities & Habitats & the Project Site

Coastal Sage (Chaparral) Scrub, Mule Fat Scrub, and Scalebroom Scrub (Southern Alluvial Fan Scrub) – Occurs on the Project Site

See the description for these vegetation communities on pages 6 and 10.

Wildlife Movement Corridors & Habitat Linkages

The term "wildlife movement corridor" implies a continuous unidirectional movement of individual animals. While wildlife movement corridors may sometimes be utilized in this way, the most important functions of a wildlife movement corridor are the long term dispersal of genetic material between population centers and the maintenance of balanced, viable populations in these areas. The term "habitat linkage" better characterizes this concept. The term habitat linkage has been described as "an undisturbed habitat parcel which connects two or more reserve parcels (generally public land holdings) with habitat suitable for movement of mobile terrestrial organisms between the reserve parcels. These linkages must be conceived as large 'planes' of habitat rather than as narrow travel routes, which offer the greatest possible potential of facilitating short- and long-term wildlife movement between parcels. The habitat linkages serve to both permit movement between isolated populations and maintain an integrated, functioning landscape-wide ecosystem (Lieberstein et al. 1987).

The reason that the preservation of habitat linkages is desirable is based on the concept of island biogeography. According to this concept, an isolated area of land (island) of a given size, and at a specific distance from a species source (mainland), can support a specific number of species at equilibrium. Many studies have indicated that, in general, habitat (or island) size is the most important factor in determining land vertebrate species diversity (Adams and Dove 1989). If an isolated area contains more species than it can support at equilibrium, species extinctions will occur within the area until equilibrium is reached. Habitat linkages can serve to greatly increase the effective size of an otherwise isolated parcel of land by linking it to other isolated parcels. These linkages will allow for an increase in species diversity disproportionate to the area involved. The main purpose of corridors (habitat linkages) is to permit a continuous exchange of individuals and genes for species that will not cross degraded or developed habitat, thereby preventing degradation of genotypes and eventual extinctions (Frankel and Soule 1981).

Habitat linkages can generally be described as coming in three types which reflect temporal usage of the linkage: short-term, intermediate-term, and long-term. Frequently these temporal designations coincide with the size of biological unit being considered. In general, the smaller and less mobile the biological unit (animal, plant, etc.) considered, the longer term and more stable a linkage is required for effective utilization. For example, a large mammal may cross a habitat linkage area in a short time whereas a smaller species may require an entire lifetime, or even several generations, to cross a similar area. Habitat linkages are important for the free movement of animals between population centers, for access to food and water sources during drought, as escape routes

from brush fires, and, in the longer term, for dispersal of genetic traits between population centers.

In general, habitat linkages consist of a strip of land that connects two or more larger land areas and is free of barriers which would seriously curtail or prevent wildlife passage. Their value depends upon width, habitat type, and structure, nature of surrounding habitat, human use patterns, and other factors. Typically, a wildlife corridor provides refuge and ease of movement, and often follows ridgelines or drainages. Several factors contribute to the usefulness of a wildlife pathway. Most important is vegetative cover; this allows wildlife to remain hidden while moving, which is very important for an animal's feeling of comfort, especially for prey species. Another factor is a natural substrate on which to walk; most animals prefer a surface with which they are familiar and where they can get traction if they need to make a hurried escape. The presence of varied terrain features such as streamcourses and ridgelines provides suitable habitats for a larger number of species. Food and water availability are also important factors to a habitat linkage. In southern California water is often the goal toward which wildlife moves, and preserving the ability of wildlife to reach water is an important part of maintaining the integrity of a natural area.

When a habitat linkage is thought of in linear terms, or as a corridor, width is often the most important factor in determining the value of the linkage. A wider corridor has a better chance of being used by a larger number of species; therefore, the guiding principal is the wider, the better (Noss 1987). A 1,000 foot wide corridor was chosen by Lieberstein as the minimum width for effective corridor utilization (1989). Another report states that in areas of low density housing (1 house per 10 acres) the absolute minimum corridor (habitat linkage) width should be no less than 1,600 feet of natural vegetation and topography (Temple and Cary 1988). The Santa Monica Mountains Conservancy says that, "there needs to be enough quality and quantity of habitat available along the length of the corridor to allow for an adequate exchange of the full range of desired species"(Edelman 1991). Statements or rules regarding the required width of an effective habitat linkage are hard to support because little scientific study has been done to substantiate any minimum effective width. One reason little study has been done is that, to determine the long term effects of relative levels of genetic isolation would require a study lasting for many generations of the species in question and involving many areas of similar habitat with dissimilar habitat linkages.

Rather than subscribing to rules regarding the minimum width of an effective corridor, several principles alluded to earlier should be followed:

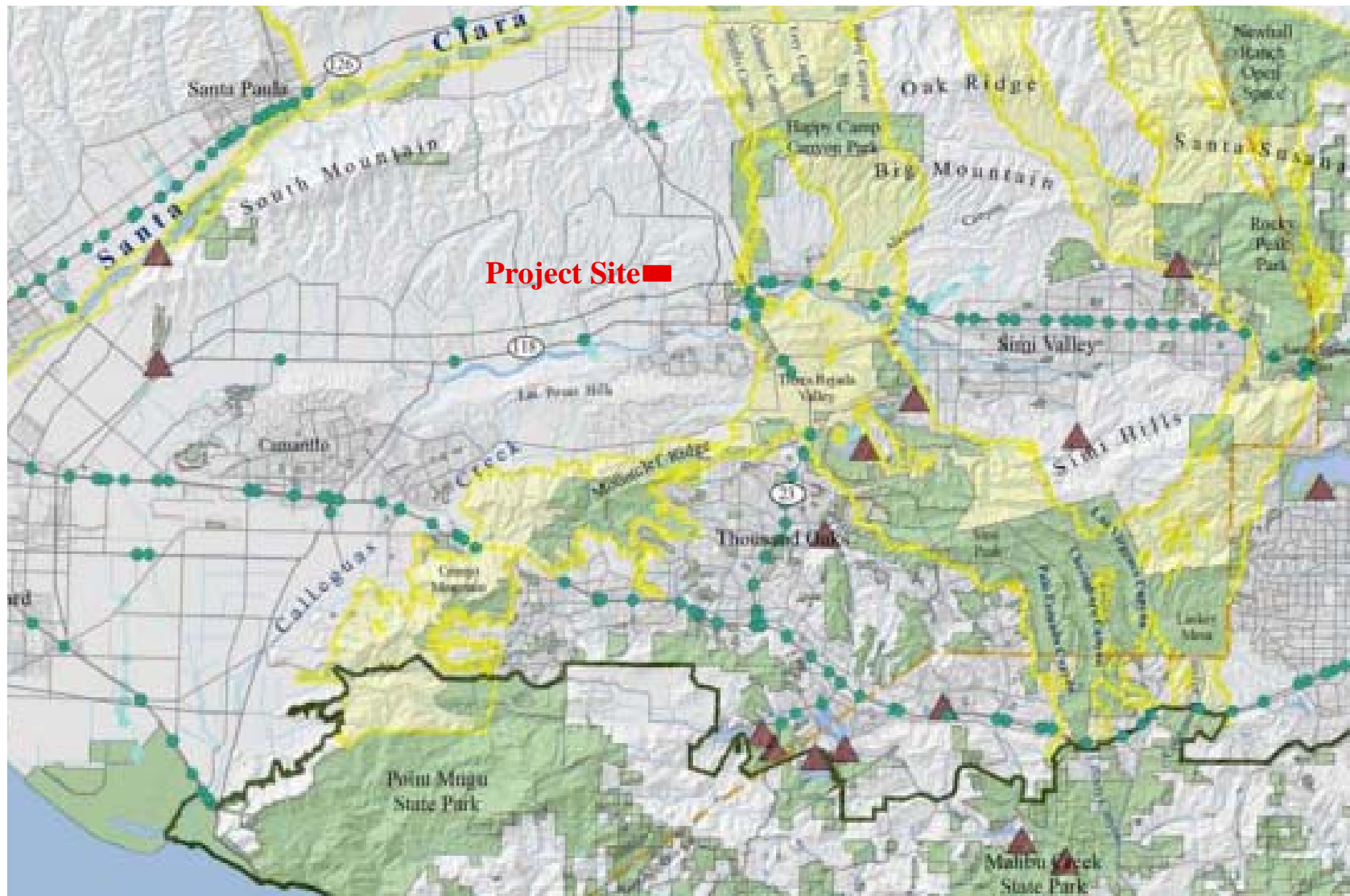
- The most important principle is to include as wide an array of habitat and terrain types as possible. Habitat and terrain are listed together because they so frequently coincide; i.e. riparian habitat is found in canyon bottoms and oak woodlands are frequently found on north facing slopes. Vegetationally intact ridges and canyon bottoms are the most important topographic features to include as they are the most frequently used natural wildlife pathways.
- The habitat types included in the linkage should be contiguous with the same habitats on the reserve parcels. This will allow wildlife to move into the linkage without crossing unfamiliar habitats.
- Riparian areas are the most significant components of a viable habitat linkage. Almost all wildlife utilizing a habitat linkage will require water.

For maximum ecological benefit, habitat linkages should be composed of an entire watershed. An entire watershed is likely to contain the greatest selection of the components discussed previously.

Wildlife Movement Corridors & Habitat Linkages & the Project Site

The local area that the project is located in has been drastically altered due to the establishment of agricultural businesses (primarily citrus orchards) and residential communities that have fragmented the landscape. This has created a disjunction between the undeveloped portions of Oak Ridge in the north and the Las Posas Hills in the south; the largest remaining open spaces in the immediate area. The wash of the unnamed blueline stream that runs through the northwest corner of the project site could potentially be used by wildlife, but the stream's southern terminus (where it flows into a concrete channel) is just south of the site and does not connect to an open space area. A residential area to the east and orchards to the west limit travel in either direction.

On a regional level, the project site does not provide connectivity to the two largest expanses of open space: the Los Padres National Forest in the Sierra Madre Mountains to the north and the Santa Monica Mountains National recreation Area to the south. The South Coast Missing Linkages Project did not include the project site and the area that it is in as a potential connection between these two large undeveloped areas (Penrod et al. 2006). The nearest potential linkage between the two areas was found to be approximately 2 miles east of the project site in Happy Camp Canyon (Penrod et al. 2006). See **Figure 6**.



Regional Wildlife Corridors in the Vicinity of the Project Site

Source: Penrod et al. 2006

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REGULATORY SETTINGS

Jurisdictional Waters & Habitats – Waters of the US, Waters of the State, &

Riparian Habitats

Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite (see **Figure 7**). The wash of the unnamed, ephemeral blue-line stream in the northwest corner is part of larger system which drains a portion of the East Las Posas watershed. The wash has been mapped as an intermittent streambed in the USFWS National Wetlands Inventory, 2007. The stream flows into a retention basin that is just west of the project site and then is directed into a concrete flood control channel. The channel continues for approximately 1.5 miles to the southeast until it connects with the Arroyo Simi/Arroyo Las Posas system. These systems then connect with Calleguas Creek, which flows into the Pacific Ocean at Mugu Lagoon.

The second drainage system on the project site consists of a small, ephemeral stream that has eroded an incised channel, which runs from north to south in the middle of the property. The source of water for this system is natural runoff from a watershed that drains a small area north and the eastern portion of the site. Nuisance water from the single-family homes, horse stables, and orchard operations to the north of the site also contribute to the system. The incised channel terminates just south of the project site, with water continuing as sheet-flow.

If necessary, jurisdictional delineations would be conducted and would be used to apply for the USACE Section 404 permit, CRWQCB's Section 401 Water Quality Certification and/or a Report of Waste Discharge under California Water Code Section 13260, and a Streambed Alteration Agreement as required by California Fish and Game Code Sections 1600 through 1616.

Waters of the US

Under provisions of the Clean Water Act (CWA), the ACOE administers the day-to-day activities required by Section 404. These include the individual permit decisions, jurisdictional determinations, developing policy and guidance, and enforcing provisions of Section 404. In 2006, the Supreme Court addressed the jurisdictional scope of Section 404 of the CWA, specifically the term "the waters of the U.S.," in their decisions on *Rapanos v. U.S.* and in *Carabell v. U.S.* (hereafter referred to as *Rapanos*). The following is taken from the *Jurisdictional Determination Form Instructional Guidebook* issued in May 2007:

The decision provides two new analytical standards for determining whether water bodies that are not traditional navigable waters (TNWs), including wetlands adjacent to those non-TNWs, are subject to CWA jurisdiction: (1) if the water body is relatively permanent, or if the water body is a wetland that directly abuts



Onsite Drainages *



USFWS National Wetlands Inventory 2007

* The size of the onsite drainages have been approximated from the aerial, not from formal jurisdictional delineations.

0 125 250 500
Feet



Onsite Drainages

Source: Land Design Consultants, Inc.

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(e.g., the wetland is not separated from the tributary by uplands, a berm, dike, or similar feature) a relatively permanent water body (RPW), or (2) if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs. CWA jurisdiction over TNWs and their adjacent wetlands was not in question in this case, and, therefore, was not affected by the *Rapanos* decision. In addition, at least five of the Justices in *Rapanos* agreed that CWA jurisdiction exists over all TNWs and over all wetlands adjacent to TNWs.

As a consequence of the U.S. Supreme Court decision in *Rapanos*, the EPA and the Corps, in coordination with the Office of Management and Budget (OMB) and the President's Council on Environmental Quality (CEQ), developed the Memorandum Regarding Clean Water Act Jurisdiction Following *Rapanos v. United States*. This guidance requires the application of the two new standards described above, as well as a greater level of documentation, to support an agency jurisdictional determination (JD) for a particular water body. Furthermore, this guidance required the Corps and EPA to develop a revised JD form to be used by field staff for documenting assertion or declination of CWA jurisdiction.

The Memo states that the agencies will assert jurisdiction over the following categories of water bodies: TNWs; all wetlands adjacent to TNWs; non-navigable tributaries of TNWs that are relatively permanent (i.e., tributaries that typically flow year-round or have continuous flow at least seasonally); and wetlands that directly abut such tributaries. In addition, the agencies will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to have a significant nexus with a TNW. The classes of water body that are subject to CWA jurisdiction only if such a significant nexus is demonstrated are: non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally; wetlands adjacent to such tributaries; and wetlands adjacent to but that do not directly abut a relatively permanent, non-navigable tributary. A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, ^{and/or} biological, integrity of a TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands.

Waters of the US & the Project Site

Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite. The unnamed, ephemeral blue line stream in the northwest corner is a non-RPW that flows indirectly into a TNW. The stream is a tributary of Arroyo Las Posas, which is a tributary to Calleguas Creek, which in turn is a tributary to the Pacific Ocean (a navigable water of the United States). A jurisdictional determination is needed to establish if the blue line stream has a significant nexus with the TNW. If the nexus determination is

established, then the blue line stream would be considered a Waters of the US and would require an individual Section 404 permit from the USACE.

The smaller ephemeral stream with the incised channel consists of swales and erosional features (e.g., gullies, small volume, infrequent, or short duration flow), which the USACE does not usually assert jurisdiction over.

Waters of the State

The California Regional Water Quality Control Board (CRWQCB) regulates discharge of waste in any region that could affect the Waters of the State under the California Porter-Cologne Water Quality Act or Waters of the US under Section 401 of the Federal Clean Water Act. Under the Porter-Cologne Act, a Report of Waste Discharge must be submitted prior to discharging waste, or proposing to discharge waste, within any region that could affect the quality of the Waters of the State (California Water Code Section 13260). Waste Discharge Requirements (WDRs) or a waiver of WDRs will then be issued by the CRWQCB. Waters of the State are defined as any surface water or groundwater, including saline waters, which are within the boundaries of the state (California Codes: Public Resource Code Section 71200). This differs from the Clean Water Act definition of Waters of the US by its inclusion of groundwater and waters outside the ordinary high water mark in its jurisdiction. While all Waters of the US also fall under the category of Waters of the State, some Waters of the State may be identified beyond the delineation of Waters of the US, and the CRWQCB may exert authority to regulate waste discharge into these waters even if the waters do not fall under USACE Federal jurisdiction.

All projects that have a federal component and may affect Waters of the US, including those that require a Section 404 permit from the USACE, must also comply with Section 401 of the Clean Water Act. If discharge into Waters of the US is being proposed, a 401 water quality certification from the CRWQCB is required (Sections 3830 through 3869, Title 23 of the California Code of Regulation) in addition to obtaining WDRs for impacts to Waters of the State.

Waters of the State & the Project Site

Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite. The need to acquire a 401 water quality certification ^{and/or} WDR is dependent on the USACE's jurisdictional determination of the unnamed blue line stream and whether or not CRWQCB takes jurisdiction of either of the two drainages.

Riparian Habitats

The California Department of Fish and Game asserts jurisdiction over the bed and bank of a river, stream, or lake and associated wildlife and habitats as established in California Fish and Game Code Sections 1600-1616. In accordance with Section 1602 of the Code, the CDFG regulates activities which will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” and requires notification prior to such activities. In addition, Section 1603 of the Code states that “after the notification is complete, the department shall determine whether the activity may substantially adversely affect an existing fish and wildlife resource” and a Streambed Alteration Agreement may be pursued. These regulations were established to protect the wildlife resources that are associated with the riparian habitats that occur within and adjacent to ephemeral to year-round drainage systems.

Riparian Habitats & the Project Site

Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite. The unnamed, ephemeral blueline stream and the small, ephemeral incised stream both have definable beds and banks. The small stream has plant species (mule fat and Pacific willow) and vegetation communities (mule fat scrub) that are typically associated with riparian habitats that the CDFG asserts jurisdiction over, so a Streambed Alteration Agreement must be obtained.

Endangered Species Act

The Federal Endangered Species Act (ESA) provides a program for the conservation of plants and animals, and their associated habitat, whose populations have declined to levels that jeopardize the species’ existence. The USFWS maintains a worldwide list which, as of Feb. 20, 2008, included 1574 endangered species and 351 threatened species. Species include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees. The law requires federal agencies, in consultation with the USFWS and/or the U.S. National Oceanic and Atmospheric Administration Fisheries Service, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a “taking” of any listed species of endangered plants or wildlife.

The following is quoted from Christman and Albrecht (1999):

The Endangered Species Act (ESA) of 1973 protects plants and animals that are listed by the federal government as “endangered” or “threatened.” Two sections, § 7 and § 9, are central. ESA § 9 makes it unlawful for anyone to “take” a listed animal, and this includes significantly modifying

its habitat. This applies to private parties and private land; a landowner is not allowed to harm an endangered animal or its habitat on his property.

Section 7 applies not to private parties but to federal agencies, but it covers their issuing permits for private activities, such as § 404 permits issued by the Corps of Engineers to applicants who want to do construction work in waters or wetlands. Specifically, § 7 imposes an affirmative duty on federal agencies to ensure that their actions (including permitting) are not likely to jeopardize the continued existence of a listed species (plant or animal) or result in the destruction or modification of critical habitat. See 50 C.F.R. § 402.01(a). Both § 7 and § 9 allow “incidental” takes, but only with a permit.

The ESA is enforced by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Services (NMFS). In the Act, “Secretary” refers to the Secretary of Commerce, acting through the NMFS for marine species listed in 50 C.F.R. § 222.23(a) (endangered) and § 227.4 (threatened), or to the Secretary of the Interior, acting through the FWS for other plants and animals (see 50 C.F.R. §§ 17.2(b), 402.01(b)). Also, the Secretary of Agriculture has some authority over the importing and exporting of plants.

Endangered Species Act & the Project Site

One (1) species listed under the ESA, coastal California gnatcatcher (Threatened), is possible on the project site. The USFWS has designated several units of critical habitat for the species that are within 3 miles of the project site.

California Endangered Species Act

The California Endangered Species Act sets forth procedures by which individuals, organizations, or the Department of Fish and Game can submit petitions to the Fish and Game Commission requesting that a species, subspecies, or variety of plant or animal be added to, deleted from, or changed in status on the State lists of rare, threatened or endangered species. The factors that contribute to determining the need to list a species include the present or threatened modification or destruction of habitat, competition, predation, disease, overexploitation by collectors, or other natural occurrences or human-related activities.

The following is quoted from California Wetlands Information System (2005):

The California Endangered Species Act (CESA) (Fish & Game Code §§2050, *et seq.*) generally parallels the main provisions of the Federal Endangered Species Act and is administered by the CDFG. Under CESA the term “endangered species” is defined as a species of plant, fish, or wildlife which is “in serious danger of becoming extinct throughout all, or

a significant portion of its range” and is limited to species or subspecies native to California. CESA establishes a petitioning process for the listing of threatened or endangered species. The California Fish and Game Commission is required to adopt regulations for this process and establish criteria for determining whether a species is endangered or threatened. The California Code of Regulations, tit. 14 §670.1(a) sets forth the required contents for such a petition.

CESA prohibits the “taking” of listed species except as otherwise provided under State law. Unlike its Federal counterpart, CESA applies the take prohibitions to species petitioned for listing (state candidates). §86 of the Fish and Game Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” State lead agencies are required to consult with DFG to ensure that any action it undertakes is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

California Endangered Species Act & the Project Site

No plant or wildlife species listed under CESA are assumed to occur on the project site due to the lack of the necessary vegetation communities and habitat elements that are typically associated with the species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 is the primary legislation protecting native birds in the United States and one of this country's earliest environmental laws. It bans “taking” any native birds; “taking” can mean killing a wild bird or possessing parts of a wild bird, including feathers, nests, or eggs.

The following is quoted from United States Fish and Wildlife Service (2005):

The Migratory Bird Treaty Act (MBTA), originally passed in 1918, implements the United States' commitment to four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The original treaty upon which the MBTA was passed was the Convention for the protection of Migratory Birds signed with Great Britain in 1916 on behalf of Canada for the protection “of the many species of birds that traverse certain parts of the United States and Canada in their annual migration.” The primary motivation for negotiation of the 1916 treaty and the passage of the MBTA was to stop the “indiscriminate slaughter” of migratory birds by market hunters and others. The MBTA was subsequently amended as treaties were signed with Mexico (1936, amended 1972 and 1999), Japan (1972), and Russia (1976).

Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The MBTA protects over 800 species of birds by implementing the 4 treaties within the United States. The list of migratory bird species protected by the MBTA appears in Title 50, section 10.13, of the Code of Federal Regulations (50 CFR 10.13).

The MBTA provides that it is unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit issued by the Secretary of the Interior. Some regulatory exceptions apply. Take is defined in regulations as: “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.”

Migratory Bird Treaty Act & the Project Site

Migratory birds (including, but not limited the following birds observed onsite: mourning doves, Anna’s hummingbird, blue-gray gnatcatcher, and song sparrow) are known to use the types of vegetation communities found on the project site for breeding purposes (Garrett and Dunn 1981). These birds are covered under the MBTA and are protected from unlawful take.

City of Moorpark’s Historic Trees, Native Oak Trees & Mature Trees Ordinances

The City of Moorpark has established municipal codes (Chapter 12.12) to protect and preserve, to the greatest extent possible, mature trees, native oak trees and historic trees, especially where such trees are associated with proposals for urban development, as such trees are a significant, historical, aesthetic and valuable ecological resource. The provisions of the ordinances apply to all living historic trees, native oak trees and mature trees, including but not limited to, where those trees are associated with proposals for urban development, on all public or private property within the limits of the city. No native oak tree, historic tree or mature tree can be removed, cut down, or otherwise destroyed unless a tree removal permit has been issued by the city. The City defines an “historic tree” as a living tree designated by resolution of the city council as an historic tree because of an association with some event or person of historical significance to the community or because of special recognition due to size, condition, or aesthetic qualities. A “mature tree” is defined as being a living tree with a cross-sectional area of all major stems equaling 72 or more square inches when measured four and one-half (4½) feet above the root crown. A “native oak tree” is defined as a living tree of the genus *Quercus* and species *lobata*, *agrifolia*, *dumosa*, or hybrids thereof (Ord. 101 § 1 (part), 1988).

Where one or more native oak trees, historic trees or mature trees are associated with any

proposal for urban development, the director of community development for the City of Moorpark, or his or her designated representative, shall cause a report to be prepared on those trees, otherwise, tree removals (public and private) shall be processed through the community services department. Where tree(s) are proposed for removal that are associated with a proposal for urban development, the director of community development, or his or her designee, shall cause an appraisal of the value of said tree(s) to be prepared. The director of community development, or his or her designated representative, may waive the requirement for a tree report or may waive the requirement for survey of one (1) or more trees based upon the director's judgment that the tree(s) would have little or no value in that location (Ord. 101 § 1 (part), 1988).

City of Moorpark's Historic Trees, Native Oak Trees & Mature Trees Ordinances & the Project Site

A formal tree survey and report were not conducted on the project site as a part of this biological resources evaluation, but two (2) coast live oaks (*Quercus agrifolia*) and numerous other mature trees with cross-sectional areas of 72 or more square inches (approximately equal to a trunk diameter of 9.5 inches) may occur onsite. See **Figure 8** for the location of the coast live oaks onsite.



★ Coast Live Oak



Onsite Coast Live Oaks

Source: Land Design Consultants, Inc.

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A.P.N. 5110-190-285 and -305

ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

The California Environmental Quality Act (CEQA) requires that agencies examine the potentially significant environmental impacts of projects that they may carry out or approve, and implement all feasible mitigation measures or alternatives that will reduce or avoid such impacts. Under CEQA Guidelines Section 21002, a lead agency can approve a project that may have significant environmental impacts only after 1) adopting all feasible mitigation measures and alternatives that will reduce or avoid the projects potentially significant impacts, and 2) making findings and issuing a “statement of overriding considerations” that “specific economic, legal, social, technological, or other considerations . . . make infeasible the [remaining] mitigation measures or alternatives identified in [an] environmental impact report.” Project impacts that may “reduce the number or restrict the range” of rare, threatened or endangered species are per se “significant” for purposes of CEQA analysis.

Threshold of Significance

Thresholds of significance for impacts to biological resources are established by criteria set forth in the California Public Resources Code that implement the policy statement set forth by the State Legislature in Section 21001(c): “Prevent the elimination of fish or wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities...”

From CEQA Guidelines Section 15064.7(a), a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.

CEQA Guidelines Section 15065(a) states that a project may have a significant effect if the project has the potential to: 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; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.

Under CEQA Guidelines Section 15380(c), the terms “endangered,” “rare,” and “threatened” include species that have been formally listed. In addition, CEQA Guidelines Section 15380(b1) independently defines a species to be “endangered” when “its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors” CEQA Guidelines Section 15380(b2) independently define a species to be “rare” when “either: (A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or

a significant portion of its range that it may become endangered if its environment worsens; or (B) The species is likely to become endangered within the foreseeable future throughout all or significant portion of its range and may be considered “threatened” as that term is used in the Federal Endangered Species Act.” In other words, where a species meets CEQA’s independent definitions for rarity, a mandatory finding of significance may be required even though the species has no recognizable legal status under CESA, the NPPA or other laws.

Additional criteria from the CEQA Guidelines used to establish if an impact is significant come from Appendix G:

- T-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Services.
- T-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Services.
- T-3 Have a 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.
- T-4 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.
- T-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- T-6 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Project Impacts & Mitigation Measures

The proposed project development consists of six (6) residential lots; five (5) 5-acre minimum estate lots in the northern portion of the project site and one multi-family lot with 545 units in the southern portion. The project design includes internal streets and associated infrastructure. Adjacent to the south of the project site is the approved North Hills Industrial Park, which is currently under construction. This project includes North Hills Parkway, which will run along the southern boundary of the project site. The proposed North Village Drive, part of a proposed mixed use development to the northwest of the project (A.P.N. 510-0-180-110 and 510-0-190-120), would run along and within the western boundary of the project site.

On a project that is undertaken on mix of developed and undeveloped land, impacts to biological resources are unavoidable. The primary impact of the proposed project would be the direct removal of onsite plant communities and the wildlife habitat that they represent. Degradation of remaining natural areas after project implementation would constitute a secondary project impact. The loss of habitat and sensitive wildlife species is cumulatively significant on a regional level, but the project's contribution to these losses is not significant. There are also instances of specific impacts to sensitive resources that are significant, but would be reduced to less than significant if the proposed mitigation measures are implemented.

There is a potential for secondary impacts to the biotic resources remaining in the open space areas after project completion. These impacts may be direct, such as removal by new residents, or indirect such as the poisoning of native plants with herbicides or fertilizers used in landscaping. Other secondary impacts include degradation of the remaining natural habitats by the new site occupants and their pets, and the introduction of exotic plants into the natural environment through nonnative landscaping. The native vegetation that remains within the planning areas or along the perimeter of the offsite open space areas might be adversely impacted by various project associated grading activities such as deposition of dust on vegetation.

The mitigations proposed for each of the impacts would reduce the impact to less than significant on a project and cumulative level. In conclusion, project implementation would result in no significant unavoidable impacts to biological resources on the project site, because all impacts to biological resources would be mitigated to levels of less than significant.

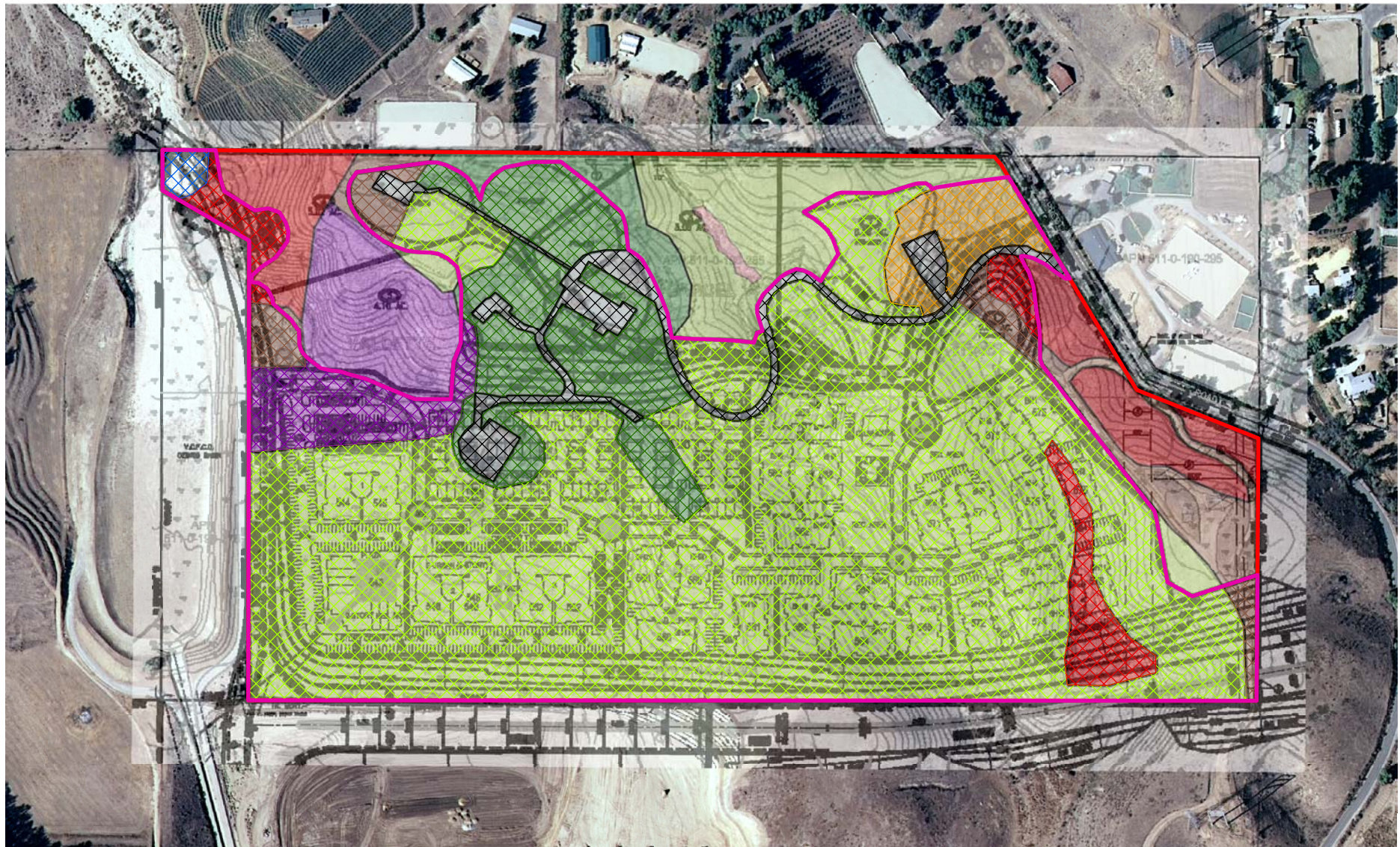
Impacts to Vegetation Communities & Habitats

Impact-1: Proposed project grading activities would permanently impact a total of 53.93 acres of the vegetation communities that are found onsite (See Table 4 for a summary of the impacts and Figure 9 for an exhibit of the areas impacted).

Additional areas may also be impacted in the future due to the need for fuel modification for wildfire safety (in accordance with the City of Moorpark or County of Ventura's standards) ^{and/or} landscaping around the estate lots.

Significance Before Mitigation

Coastal sage scrub is not specifically protected in Ventura County; however, resource management agencies recognize the regional decline of this habitat and actively protect it in conjunction with the many sensitive wildlife species that are dependent on the habitat. Losses of coastal sage scrub are considered significant on a project and cumulative level.



Grading Limits



Impacted CSS 2.11 acres



Impacted Ruderal Grassland 1.45 acres



Impacted Landscape 1.51 acres



Impacted Ruderal Grassland with CSS 38.59



Impacted Ruderal Grassland with Landscaping & CSS 5.64 acres



Impacted CSS with Ruderal Grassland 2.00



Impacted SAFS 0.26 acres



Impacted Mule Fat Scrub 0 acres



Impacted Developed 2.22 acres

0 125 250 500
Feet



Impacts to Onsite Vegetation Communities

Source: Land Design Consultants, Inc.

Baher Property
A.P.N. 5110-190-285 and -305

The development of the project site would contribute to the incremental loss of open space in the area. Though not significant in itself on the project site, the loss of open space, and each habitat occupying that open space, on the project site contributes to the significant cumulative loss of undeveloped open space in the rapidly expanding southern California suburban areas.

The loss of southern alluvial fan sage scrub and mule fat scrub due to project implementation are addressed under **Impact – 2**.

Table 4: Summary of the permanent impacts due to grading to the vegetation communities onsite.

Community Type	Total Onsite	Amount Impacted	Amount Remaining	Percent Remaining
Coastal Sage Scrub (CSS)	5.60	2.11	3.49	62.3%
Ruderal Grassland	3.34	1.45	1.89	56.6%
Landscaping	1.51	1.51	0	0%
Ruderal Grassland w/ CSS Elements	43.25	38.59	4.66	10.8%
Ruderal Grassland with Landscaping & CSS Elements	6.84	5.64	1.20	17.5%
Coastal Sage Scrub w/ Ruderal Grassland	4.79	2.00	2.79	58.2%
Southern Alluvial Fan Scrub (SAFS)	0.26	0.26	0	0%
Mule Fat Scrub	0.15	0.15	0.15	100%
Developed	2.22	2.22	0	0%
Totals:	67.96	53.93	14.18	20.9%

Mitigation Measure – 1a

In order for any remaining unmodified natural open space within or adjacent to the project site to continue to function as a natural part of the regional ecosystem to the greatest extent possible, the applicant shall develop a management plan for the protection and maintenance of remaining onsite open space areas. The plan shall be incorporated into the CC & R's for the tract and shall contain at least the following elements:

- Goals and Objectives
- Permitted and Prohibited Uses
- Exotic Plant and Animal Management
- Litter Management
- Responsible Parties
- Funding
- Enforcement and Penalties
- Trespass Remediation
- Contingencies

The project's Homeowners Association is expected to be the long-term owner of the any remaining unmodified natural open space and would be responsible for any necessary maintenance.

Mitigation Measure – 1b

To reduce coastal sage scrub loss resulting from fuel modification, a fuel modification zone shall be developed to restrict brush clearance to the minimum distance specified by the Ventura County Fire Department. Clearance distances shall take into account the presence of any block walls used between developable areas and the adjacent native habitat areas.

Mitigation Measure – 1c

Any coastal sage scrub that is remaining after full project development will be preserved and enhanced. Any natural open space areas (excluding areas of mule fat scrub and southern alluvial fan scrub) and not affected by fuel modification requirements will be used for the creation of coastal sage scrub. Details of the proposed restoration and creation efforts and success criteria shall be described in a Mitigation and Monitoring Plan that is to be approved by CDFG prior to implementation.

Mitigation Measure – 1d

To eliminate potential unapproved or offsite grading incidents earth-moving equipment shall be confined to within the approved limits of grading during construction. The limits of grading shall be fenced so that construction equipment does not impact areas outside the approved limits of grading.

Significance After Mitigation

If the proposed mitigation measures are implemented, impacts to coastal sage scrub will be reduced to be reduced to less than significant on a project and cumulative level. Implementation of the mitigation measures will also reduce the project's contribution to cumulative loss of open space and habitats to less than significant.

Impact–2: Proposed project activities would permanently impact streamcourses and habitats that federal and state agencies assert jurisdiction over.

Formal jurisdictional delineations were not conducted on the project site as a part of this biological resources evaluation, but two definable drainages are found onsite. The grading plans for the current project design would impact the wash of the unnamed, ephemeral blue line stream in the northwest corner is part of larger system which drains a portion of the East Las Posas watershed. The alluvial wash of the stream supports southern alluvial fan scrub (scalebroom scrub), which the CDFG considers a high priority for inventory in the CNDDDB, due to its rarity and potential threats to known occurrences of the community.

The second drainage system on the project site consists of a small, ephemeral stream that has eroded an incised channel, which runs from north to south in the middle of the property. The grading plans for the current project design would impact the southern portion of this system. A portion of the northern reach of the drainage supports 0.015 acres of mule fat scrub, which the CDFG considers a high priority for inventory in the CNDDDB. This portion would not be impacted by grading under the current project design, but could be impacted in the future due to the need for fuel modification for wildfire safety (in accordance with the City of Moorpark or County of Ventura's standards) ^{and/or} landscaping around the estate lots

Significance Before Mitigation

Any unmitigated impacts as a result of fill, removal, or discharge to Waters of the State, Waters of the US, ^{and/or} CDFG bed and bank and associated riparian habitat are considered significant on a project and cumulative level.

Mitigation Measure – 2

Jurisdictional delineations will be conducted using the methods described in Part IV of *The Corps of Engineers Wetlands Delineation Manual* (1987) and in accordance with CDFG Guidelines. These determinations will be used with the proposed project plans to determine if jurisdictional areas will be impacted by project implementation. These determinations will be used to apply for the USACE Section 404 permit; CRWQCB's Section 401 Water Quality Certification ^{and/or} a Report of Waste Discharge under California Water Code Section 13260; ^{and/or} a Streambed Alteration Agreement as required by California Fish and Game Code Sections 1600 through 1616.

Conditions for the permit, certification, ^{and/or} agreement may require one of the following mitigations:

- The onsite creation of at least an equal amount of equal quality riparian habitat.
- Enhancement of quality onsite riparian habitat, usually on a greater than 1:1 habitat lost to habitat enhanced ratio.
- Creation of offsite riparian habitat where none currently exists.
- Preservation of offsite riparian habitat by direct purchase or payment of an in-lieu fee to the Santa Monica Mountains Conservancy or similar organization.

All mitigation measures involving the creation of riparian habitat should be self-sustaining and utilize natural water supplies.

Significance After Mitigation

If the proposed mitigation measures are implemented, including any conditions required by the USACE, CRWQCB, ^{and/or} CDFG, the potential impacts to Waters of the US, Waters of the State, ^{and/or} streambed and banks, including any associated riparian habitat, will be reduced to less than significant on a project and cumulative level.

Impact-3: Proposed project activities and the resulting development could potentially cause impacts to downstream waters.

The location of the project site in the Calleguas Creek watershed means that any aspect of project implementation that affects the drainages onsite may also affect the entire downstream riparian community. Indirectly, downstream habitats could be affected by onsite construction and the resulting use of the property, both of which could produce by-products that would eventually impact Calleguas Creek. The result of this could be a significant alteration of the biochemistry of the creek, possibly resulting in a degradation of the watershed's ability to support sensitive and non-sensitive plants and animals. Construction activities and activities associated with the proposed use of the site as storage yard could present several potential sources for water quality degradation in the stream including the following:

Construction activities, especially those involving the mixing of mortar and concrete, often result in the production of substantial quantities of sullied waste water which would seriously pollute the creek if it were to be deposited there.

- Other construction activities that expose the earth and remove vegetation have the potential to increase erosion. Erosion may result in the degradation of downstream water quality, increased siltation, and turbidity.
- In addition to direct impacts like those above, build-out of the project site would have a number of secondary impacts to the watershed. These include a variety of activities that are seemingly innocuous but are ultimately harmful to the environment. The list includes the application of pesticides and fertilizers in landscaping, and the disposal or spillage of cleaning solvents, paints, and automobile fluids (oil, gasoline, etc.) on impervious surfaces. A serious concern over the careless disposal of these chemicals is that their deposition in the ground, or in areas which would run off the site, would eventually lead to the contamination of Arroyo Las Posas and Calleguas Creek. Without mitigation, the buildup of such toxic materials would be harmful to the wildlife that depends on this water source. The buildup of toxic materials may also occur from streets and other paved areas. This would not pose the same threat to the watershed if runoff is filtered prior to being deposited into the Calleguas Creek watershed.

Significance Before Mitigation

These impacts would be significant on an individual project basis and at the cumulative level unless preventative mitigation measures are taken.

Mitigation Measure – 3a

To Prevent Contaminated Wastewater from Entering Downstream Habitats: Designated areas shall be set aside for equipment washing and small batch mixing of concrete or other chemicals. The set aside areas shall be lined with an impermeable liner and all washings or residue shall be collected and properly disposed of following construction.

Mitigation Measure – 3b

To Prevent Downstream Impacts from Runoff and Erosion: A complete Storm Water Pollution Prevention Plan SWPPP shall be prepared, approved by the City, and implemented. Monitoring of the SWPPP measures shall take place monthly during the summer and weekly during the winter. SWPPP measures shall also be checked after each rain event. A monitoring report shall be prepared and presented to the City bi-annually or whenever measures are not being adequately implemented.

Mitigation Measure – 3c

To Prevent Downstream Impact from Development Area Runoff - The first 0.75 inch of rainfall on the site must be captured and treated prior to release into the Arroyo Simi and Calleguas Creek natural watershed. These measures shall limit pollution in Arroyo Simi and further downstream into the Calleguas Creek and the potential negative impact on the sensitive species and other aquatic plant and animals.

- Use permeable materials for parking and driving surfaces where feasible.
- All low flows and first flush runoff from the project site will be filtered ^{and/or} treated in a 3-stage extended detention system using mechanical and biological treatments.
- Use biofilters such as a swale or a vegetated strip, where feasible. A swale is a vegetated channel that treats concentrated flow. A street strip (e.g. a parkway) treats flow and is placed parallel to the contributing surface.
- Runoff shall be collected into catch basins with filtration units that remove floating debris, solids, and soluble/insoluble pollutants; such as deflection separator units, oil/water separators, ^{and/or} media filters prior to outlet onto natural alluvial areas for infiltration.
- All catch basins and inlets shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES BMP standards, as approved by the Department of Public Works.
- Utilize riprap at the outlets of storm drains, culverts, and conduits to minimize erosion.

Significance After Mitigation

If the proposed mitigation measures are implemented, the downstream impacts from runoff and erosion shall be reduced to a level of less than significant on an individual project basis and the project's contribution to cumulative impacts shall be reduced to a level of less than significant.

Impacts to Protected Plants

Impact–4: Proposed project activities could potentially cause the loss of sensitive plant species.

Implementation of the proposed project activities could potentially result in the loss of individual white rabbit tobacco (CNPS 2.2) and Plummer’s mariposa lily (CNPS 1B.2) on the project sites.

Significance Before Mitigation

As the white rabbit tobacco and Plummer’s mariposa lily are not specifically protected, the loss of individuals would not violate state of Federal Endangered Species Act or California Fish and Game Code. However, according to CEQA the reduction in numbers of a species that has become sensitive as a result of previous human impacts is considered potentially significant on the project and cumulative level.

Mitigation Measure – 4

Prior to the commencement of the proposed projects activities, a qualified biologist will conduct focused surveys for white rabbit tobacco and Plummer’s mariposa lily on the project site where the species may occur. If either of the species are found to occur in the proposed impact area, a report shall be prepared in accordance with the CNPS Botanical Survey Guidelines (CNPS 2001) and submitted to the CDFG prior to commencement of maintenance activities. The report shall recommend measures to avoid significant impacts to populations of the species and offer mitigation to reduce any impacts to less than significant levels. Depending on the abundance of individuals within the proposed impact area, mitigation measures could include a salvage program, which would involve the transplantation and propagation of the species, or acquiring/preserving land with similar population structure.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to white rabbit tobacco and Plummer’s mariposa lily will be reduced to less than significant on a project and cumulative level.

Impact–5: Proposed project activities could potentially cause the loss of mature trees and coast live oaks.

A formal tree survey and report were not conducted on the project site as a part of this biological resources evaluation, but two (2) coast live oaks (*Quercus agrifolia*) and numerous mature trees with cross-sectional areas of 72 or more square inches (approximately equal to a trunk diameter of 9.5 inches) may occur onsite.

Significance Before Mitigation

The removal of coast live oaks and mature trees would be significant under the City of Moorpark's Municipal Code Chapter 12.12, unless the director of community development, or his or her designated representative, waives the requirement for a tree report and may waive the requirement for survey of one (1) or more trees based upon the director's judgment that the tree(s) would have little or no value in that location (Ord. 101 § 1 (part), 1988).

Mitigation Measure – 5a

If deemed necessary by director of community development, prior to the commencement of the proposed projects activities, a tree survey will be conducted on the project site and a tree report will be prepared. In accordance with Municipal Code 12.12.050 (Urban development proposals—Report guidelines), the tree reports shall be prepared by an arborist, horticulturist, or registered landscape architect who is on a list approved by resolution of the city council. The tree report will contain the following:

- the precise vertical and horizontal location within plus or minus one (1) foot of each mature tree on the subject parcel and the generalized locations of all mature trees within twenty (20) feet of the project boundary.
- Tree type by common name and genus and species;
- The diameter of trunks or main stems as measured four and one-half (4½) feet above the root crown;
- The average spread of each tree;
- A letter grade for the health of each tree. Grades employed shall be “A” for outstanding, “B” for good, “C” for average, “D” for below average;
- A letter grade for the aesthetic quality of each tree employing those grades defined above;
- Disclosure of any significant disease or insect infestations, heart rot, fire, mechanical or wind damage;
- Recommended tree surgery, chemical treatment or other remedial measures intended to improve the health, safety or life expectancy of the tree;
- Appraisal value of each tree which shall be established and provided to the city using the most recent edition of the Guide for Establishing Values of Trees and Other Plants, prepared by the Council of Tree Landscape Appraisers.

Mitigation Measure – 5b

In accordance with Municipal Code 12.12.060 (Urban development proposals—Tree preservation guidelines) the initial project layout, design and grading shall recognize the desirability of preserving native oak trees, historic trees or mature trees with appropriate modifications and adjustments to accommodate preservation and maintenance by locating the best candidates in areas where preservation is feasible. Design of the grading and other improvements shall reflect consideration of the following safeguards:

- Location in minimum growing areas as required by individual species;
- No disruption or removal of structural feeder roots;
- Fencing of trees at or beyond their driplines during grading and construction activities;
- No filling, cutting, development, or compaction of soils within the dripline;
- Such other measures required by the species of tree to be preserved as recommended by the consulting arborist, horticulturist, or landscape architect

According to Municipal Code 12.12.060, the City of Moorpark recognizes that the complete preservation of healthy trees may sometimes be incompatible with normal land developmental considerations. It may not always be practical to preserve all healthy trees on the project site, and therefore, the city and the developer must be willing to compromise the goal of complete tree preservation in order to address other public safety and design concerns. In such instances, the design of the development must address preservation of the most desirable and significant of the healthy trees and the developer is encouraged to utilize creative land planning techniques to achieve this end. Following approval of such a development, the developer shall submit grading, improvement, and precise landscaping plans detailing the approved preservation plan. Such plans shall be approved by the city engineer ^{and/or} the director of community development, as appropriate.

If the removal of coast live oaks or mature trees is unavoidable under the approved preservation plan, then Mitigation Measure – 5c will be instituted.

Mitigation Measure – 5c

In accordance with Municipal Code 12.12.070 (Tree removal permits-Requirements), tree(s) that are proposed for removal shall be appraised for the value of the tree(s) using the most recent edition of the Guide for Establishing Values of Trees and Other Plants, prepared by the Council of Tree Landscape Appraisers. The resulting value shall be applied to upgrading the size of tree plantings associated with the project.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to mature trees and coast live oaks will be reduced to less than significant on a project and cumulative level.

Impacts to Wildlife

Landscaping around the project site may provide new habitats that could attract some fauna not now present as well as increasing habitat value for some species present or expected onsite. These would principally be introduced species or highly adaptive native species that are tolerant of human disturbance. Among those nonnative species that might experience a population increase caused by the altered environment, and are often considered pests are the Norway rat, house mouse, spotted dove, rock pigeon, European starling, and house sparrow. Those native species that might experience a population increase caused by the altered environment include the northern mockingbird, house finch, and mourning dove.

Impact–6: Proposed project activities could potentially cause the take of the ESA-listed coastal California gnatcatcher.

Although the species was not observed during the surveys of the project site, coastal sage scrub dominated by California sagebrush does occur onsite that could be utilized by the species. Four (4) occurrences of the species have been recorded in the CNDDDB within 10 miles of the project site, with the nearest occurrences located approximately 1.5 miles to the east. Additionally, the USFWS has designated several units of critical habitat for the species that are within 2.5 miles of the site.

Significance Before Mitigation

Direct mortality and the loss of their associated habitat of species listed as threatened would be a violation of section 9 of the federal Endangered Species Act (58 Federal Register 65088) and is considered both independently and cumulatively significant.

Mitigation Measure–6a

Directed surveys will be conducted by a 10(a)(1)(A) permitted biologist in accordance with the Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines, February 28, 1997 (USFWS 1997). The following summarizes the protocols of the directed survey:

- Breeding and non-breeding season survey protocol for presence/absence of coastal California gnatcatchers are as follows:
- From March 15 through June 30, a minimum of six (6) surveys shall be conducted at least one week apart. The protocol for the breeding season was designed to provide a 95% confidence level of detecting coastal California gnatcatchers at a site when they are present.
- From July 1 through March 14, a minimum of nine (9) surveys shall be conducted at least two weeks apart.
- Surveys shall be conducted between 6:00 a.m. and 12:00 p.m. Surveys shall avoid periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather.

- Taped coastal California gnatcatcher vocalizations shall be used only until individuals have been initially located. Tapes shall not be used frequently or to elicit further behaviors from the birds.
- Surveys shall be conducted by slowly walking survey routes. Sites with deep canyons, ridge lines, steep terrain, and thick shrub cover should be surveyed more slowly. Prevailing site conditions and professional judgment must be applied to determine appropriate survey rates and acreage covered per day. These factors may dictate that the maximum daily coverage specified below is not prudent under certain conditions.
- No more than 80 acres (32 ha) shall be surveyed per biologist per day.

The permittee shall provide the following information in a report to the appropriate Service Fish and Wildlife Office, described above, and the California Department of Fish and Game within 45 days following the field surveys.

- The location of the survey area delineated on a 7.5 minute U.S. Geological Survey topographic map at 1:24,000 and 1:200 scale.
- Names of all biologists and associated personnel with reference to their section 10(a)(1)(A) permit number. A complete description of survey methods, including, the number of acres surveyed per biologist per hour and how many total acres surveyed per day per biologist, the number and dates of surveys, start and stop time of surveys, survey routes delineated on maps, the temperature and weather conditions at the beginning and end of each survey, and how frequently taped vocalizations were used.
- Written and mapped qualitative descriptions of plant communities (including dominant species and habitat quality) on and adjacent to the area surveyed.
- The number, age (adult, independent juvenile, dependent juvenile, recently fledged juvenile, nestling, unknown), sex of all coastal California gnatcatchers, and color band information (from top to bottom and from left to right) if any. These data also shall be plotted on 1:24,000 and 1:200 scale maps of the survey area.
- Copies of all reports or other documents that include information gathered under the authority of Service permits (e.g., reports for clients prepared by consulting firm) shall be submitted to the appropriate Service Fish and Wildlife Office immediately upon completion. Raw/field data, notes, and other information resulting from work conducted under this permit shall be submitted to the Service immediately upon request.

If there results of the protocol surveys indicate that the coastal California gnatcatcher is absent from the project site, then no further mitigation measures are necessary. If the species is determined to be present, then Mitigation Measure–6b will be instituted.

Mitigation Measure–6b

If there results of the protocol surveys indicate that the coastal California gnatcatcher is present on or adjacent to the project site such measures to avoid a take of the species shall include:

- Flagging and marking known nest sites.
- Prohibition of demolition, salvaging, and site remediation within specified distances (500 – 1,000 feet) from a nest site between February 15 and August 30.

The project site developer and their biological consultant will coordinate the results of the protocol surveys with the USFWS and CDFG, and shall develop appropriate strategies to compensate for the loss of sage scrub habitat during decommissioning. Removal of coastal sage scrub that has been occupied by the coastal California gnatcatcher shall be compensated at a ratio of 3:1. Depending on whether the USACE exerts jurisdiction, either a Section 7 consultation will be initiated or Section 10 permit application will be filed with the USFWS by the developer. The exact means of compensation would be coordinated with the appropriate agencies, but could include:

- Development of an on-site HCP or participation in an adjacent HCP or NCCP program.
- Restoration of on-site or nearby disturbed areas of coastal scrub.
- Preservation of coastal sage scrub vegetation within the project site ^{and}/_{or} within established coastal sage scrub vegetation on nearby sites and incorporation of appropriate conservation easements.
- Conduct Section 7 consultation between USFWS and USACE.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to coastal California gnatcatcher will be reduced to less than significant on a project and cumulative level.

Impact–7: Proposed project activities could potentially cause the take of breeding birds onsite and in adjacent offsite areas. This includes sensitive species and birds covered under the Migratory Bird Treaty Act.

Implementation of the proposed project activities could potentially result in impacts to breeding birds, including three (3) sensitive species (Allen’s hummingbird, southern California rufous-crowned sparrow, & lark sparrow; listed by various agencies) that utilize the various vegetation communities found on the project site. Two (2) sensitive raptors (sharp-shinned hawk and Cooper’s hawk; both are on the CDFG Watch List), red-tailed hawks, red-shouldered hawk, American kestrel, and great-horned owl are known to occur on the project site as transients and may breed in the immediate vicinity. Additionally, several relatively common birds covered under the MBTA are known to breed within the PSA (Garrett and Dunn 1981).

Significance Before Mitigation

Allen's hummingbird, southern California rufous-crowned sparrow, & lark sparrow are not specifically protected and the loss of individuals of these species would not violate state or federal Endangered Species Acts or California Fish and Game Code. However, according to CEQA the reduction in numbers of a species that has become sensitive as a result of previous human impacts is considered potentially significant on the project level and is significant on a cumulative level.

The six (6) species of raptor are protected under Fish and Game Code 3503.5 ("It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto") and the loss of any individuals or the failures of any nests would be significant.

The taking of a nest (either directly or by causing it to fail) of a migratory bird and impacts to areas used for foraging by migratory birds are unlawful according to the Migratory Bird Treaty Act (U.S. Code, Title 16, Chapter 7, Subchapter II, § 703).

Mitigation Measure-7a

If it is feasible, the clearing of vegetation and construction activities will be conducted between August 31st and February 1st, which is outside of the typical breeding/fledging season for the sensitive bird species and migratory birds that may nest on or in the immediate vicinity of the project site.

Mitigation Measure-7b

If clearing of vegetation and construction activities within the selected projects are planned between February 1st and August 31st, then breeding bird surveys will be conducted by qualified biologists at a maximum of two (2) weeks prior to the commencement of activities. Nests and birds exhibiting breeding behavior will be identified within 500 feet of the area to be impacted and efforts will be made (including the creation of appropriate buffers around the nests and areas used by breeding birds, rerouting vehicular traffic, limiting the number of vehicles, the use of non-mechanized tools, etc.) to limit disturbances to the nests. A qualified biologist will monitor the identified nests and birds exhibiting breeding behavior during the duration of the work or until successful fledging occurs, whichever comes first. If the monitor notes that identified birds and nests are being negatively affected by the construction activity, then the buffers will be increased to an appropriate distance to ensure fledging is successful.

After the completion of the construction activities or the completion of onsite breeding activities, a letter report summarizing the work and its affect on the breeding birds will be produced and submitted to the CDFG.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to the sensitive species, raptors, and breeding migratory birds will be reduced to less than significant on a project and cumulative level.

Impact–8: Proposed project activities could potentially cause the take of sensitive amphibians and reptiles.

Implementation of the proposed project activities could potentially result in the direct mortality of four (4) sensitive species (western spadefoot, San Diego coast horned lizard, California coast horned lizard, and coastal western whiptail; the first three are listed by the CDFG as Species of Special Concern and the last is listed by NatureServe) that may potentially occur on the project site.

Significance Before Mitigation

Western spadefoot, San Diego coast horned lizard, California coast horned lizard, and coastal western whiptail are not specifically protected and the loss of individuals of these species would not violate state or federal Endangered Species Acts or California Fish and Game Code. However, according to CEQA, the reduction in numbers of a species that has become sensitive as a result of previous human impacts is considered potentially significant on the project level and is significant on a cumulative level.

Mitigation Measure–8a

Additional surveys for the four (4) species should be conducted onsite in the areas with appropriate habitat for each species. The surveys should coincide with weather conditions that are conducive for each species; sunny late-spring or summer days with above-average temperatures for San Diego coast horned lizard, California coast horned lizard, and coastal western whiptail (Stebbins 2003) and after substantial rainfall events in the winter and spring for western spadefoot (Ervin and Cass 2007).

If any of the four (4) species are found to occur onsite during the additional, then Mitigation Measure–8b shall be instituted.

Mitigation Measure–8b

If any individual of the four species are found during the survey, then a salvage program will be initiated for the site. The salvage program will consist of the capture of individuals from the area to be impacted by the project implementation and their relocation to a predetermined offsite location, which has CDFG's approval, with appropriate habitat that will not be impacted by the project activities or other construction activities in the vicinity. Time allowed for the salvage program will be determined by the size of the project site and the abundance of the species that are found onsite. The salvage program will continue with the monitoring of the initial ground disturbance

construction activities. The salvage program will conclude when all of the ground within the grading limits has been affected by construction activities.

After the completion of the salvage program a letter report summarizing the surveys and salvage opportunities will be prepared and submitted to the CDFG.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to western spadefoot, San Diego coast horned lizard, California coast horned lizard, and coastal western whiptail will be reduced to less than significant on a project and cumulative level.

Impact-9: Proposed project activities would directly and indirectly impact the general wildlife and their associated habitats that are found on and in the vicinity of the project site.

General Wildlife Mortality: The immediate impact of project implementation would be the direct mortality of species that are unable to escape grading/construction equipment. Species of low mobility, particularly burrowing reptiles and mammals would probably be eliminated by site preparation.

General Wildlife Habitat Loss: Those species that are able to escape grading equipment would be impacted by the loss of habitat they previously occupied. Many species can be expected to move to adjacent areas of similar habitat. Wildlife that does emigrate is subject to mortality by predation and unsuccessful competition for food and territory, decreasing chances for survival.

The loss of habitat results in the loss of species that depend on each habitat. Some of these may be common in the habitat or elsewhere in the state. Others may be limited in distribution to the local biome and there may be few remaining habitat areas supporting these less common wildlife populations in cismontane southern California. Even the habitat that is dominated by nonnative plant species holds some value as foraging habitat for many native wildlife species.

General Wildlife Displacement and Competition: Indirectly, wildlife populations in the surrounding area would be affected adversely by loss of available habitat within the project site as resident wildlife species were displaced by development. This displacement would cause temporary increased stress on nearby wildlife populations as competition for food, water, and nesting sites increased.

General Wildlife Disruption in Surrounding Areas: Another direct impact is that onsite activity would disturb all wildlife in the vicinity. Generally this impact is considered temporary and insignificant. However, during bird nesting season, activities have the potential to disrupt nesting activities in adjacent areas (addressed in **Impact-7**).

Significance Before Mitigation

The development of the project site would contribute to the incremental loss of open space and natural habitat in the area. Natural open space is rapidly becoming a scarce commodity in the southern California region. Though not significant on a project level, the loss of open space, and each habitat occupying that open space, on the project site contributes to the significant cumulative loss of undeveloped open space in the rapidly expanding urban/suburban area.

Mitigation Measure–9a

Prior to the initiation of any grading and during initial grubbing and topsoil salvage, biologists shall attempt to capture and relocate all reptiles within the impact area. Other ground dwelling wildlife, i.e. amphibians and mammals, shall be relocated if the opportunity presents itself. Wildlife shall be relocated to preserved areas of the site when appropriate or to nearby (in the same watershed) permanent open space areas. It is assumed that a two-person team can adequately salvage the reptiles on the entire site in half a day.

Mitigation Measure–9b

To reduce impacts resulting from construction vehicle traffic, routes and trips shall be restricted to a minimum number. Earth-moving equipment shall be confined to the narrowest possible corridor during construction. Earth-moving and other construction equipment shall be confined to the project footprint and shall not operate or maneuver in areas outside the project footprint. The entire edge of grading shall be fenced with brightly colored “snow fence” or similar material. This shall serve to alert equipment operators of the grading limits. All vehicle access shall be via areas within the impact zone. No temporary access roads shall be made through portions of the site that shall be preserved as natural open space.

Significance After Mitigation

If the proposed mitigation measures are implemented, the project’s potential contribution to cumulative impacts to wildlife due to habitat loss, displacement and competition, and disruption in surrounding areas will be reduced to less than significant.

Impact–10: Proposed project activities and the resulting development could increase litter in the area and result in the mortality of a sensitive species.

The increased human presence on the site could result in a substantial increase in the amount of litter deposited on the site and in surrounding natural areas. Aside from being an eyesore, litter is detrimental to wildlife for a variety of reasons. Many larger animals would attempt to eat the remnants of food products often associated with litter and in the process ingest plastic and other inedible and potentially fatal products. Many smaller

animals and birds would use various inorganic litter products for nesting materials with potentially fatal results to their young.

Significance Before Mitigation

If litter generated by the project results in the mortality of a sensitive species, that impact would be considered significant. Cumulatively, the impact of litter on wildlife is significant and the potential litter generated by the project during and after implementation would contribute to the cumulative impact.

Mitigation Measure–10a

The construction of litter barriers (i.e.: walls or small mesh-chain link fence) around the project site shall be accomplished in order to limit the progression of litter into the open spaces of the project area or surrounding areas. Continuous deflective separation units shall be installed in the storm drain inlets to remove gross pollutants from storm water.

Mitigation Measure–10b

CC & R's for the proposed tract will include litter management, which will be enforced the Homeowners Association.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to sensitive species from litter and the project's contribution to cumulative impacts from litter will be reduced to less than significant on a project and cumulative level.

Impact–11: Proposed project activities and the resulting development could result in an increase in night lighting, which may be detrimental to sensitive species in nearby natural areas.

Night lighting may be detrimental to animals in nearby natural areas for a variety of reasons. These include disruption of circadian rhythms and avoidance due to light sensitivity in species with exceptional night vision. Some insectivorous species benefit from night lighting because it attracts and concentrates large numbers of insects for feeding purposes. However, the typical net effect of lighting is that adjacent areas are utilized by wildlife to less than their fullest extent. The impact of increased night lighting is significant on a project level. Regionally, the cumulative impact of increased night lighting on wildlife is significant, but the project's contribution to this cumulative impact is less than significant.

Significance Before Mitigation

If night lighting generated by the project negatively affects sensitive species, that impact would be considered significant. Cumulatively, the impact of night lighting on wildlife is significant and the potential night lighting generated by the project after implementation would contribute to the cumulative impact.

Mitigation Measure–11

To reduce the potentially adverse effects of night lighting on surrounding open space areas, the following measures shall be recorded in the CC & R's and enforced by the Homeowners Association:

- Low-intensity exterior lighting;
- Low elevation lighting poles;
- Internal silvering of the globe or external opaque reflectors directing the light away from open space areas; and
- Lighting activated by timers or motion-detectors that are directed inward from the perimeter of the site. The degree to which these measures are utilized shall be dependant upon the distance of the light source from the urban edge.

Significance After Mitigation

If the proposed mitigation measures are implemented, the potential impacts to sensitive species from night lighting and the project's contribution to cumulative impacts from night lighting will be reduced to less than significant on a project and cumulative level.

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APPENDIX 1

FLORA AND FAUNA COMPENDIA



FLORAL COMPENDIUM

The ninety (90) plants listed (55 natives and 35 nonnatives) were either observed (marked °) or are expected to occur (marked °) on the project site. This list is not intended as an exhaustive listing of the vegetation occurring on the site; some annual herbs or very uncommon species may not have been detected by the field survey. Given that the surveys of the project site were conducted in December, the plant list has been supplemented with three floristic surveys conducted in the spring of 2004 on parcels in the immediate vicinity of the project site (A.P.N.s 5110-180-110, 5110-190-120, 5110-190-150, 500-0-180-185, 500-0-190-195, 511-0-190-205, and Tentative Tract 5505). Species preceded by * are nonnatives and those preceded by @ are ornamentals installed as landscaping components. Species

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VASCULAR PLANTS**GYMNOSPERMAE****PINACEAE - PINE FAMILY**

*@ *Pinus halepensis* Aleppo pine °

ANGIOSPERMAE (DICOTYLEDONS)**AIZOACEAE - ICEPLANT FAMILY**

*@ *Carpobrotus aequilaterus* sea-fig °

ANACARDIACEAE - SUMAC FAMILY

Malosma laurina laurel sumac °
*@ *Schinus molle* Peruvian pepper-tree °

APIACEAE - CARROT FAMILY

Apiastrum angustifolium wild celery °
* *Foeniculum vulgare* sweet fennel °

ASCLEPIADACEAE - MILKWEED FAMILY

Asclepias fascicularis narrow-leaved milkweed °

ASTERACEAE - SUNFLOWER FAMILY

Acourtia microcephala sacapellote °
Ambrosia psilostachya western ragweed °
* *Anthemis cotula* mayweed °
Artemisia californica coastal sagebrush °
Artemisia douglasiana California mugwort °
Baccharis pilularis coyote brush °
Baccharis salicifolia mule fat °
* *Centaurea melitensis* tocalote °
* *Centaurea solstitialis* yellow star-thistle °
Chaenactis glabriuscula yellow pincushion °
Cirsium occidentale cobweb thistle °
Cirsium occidentale
var. *californicum* California thistle °
* *Conyza canadensis* horseweed °
Encelia californica California brittlebush °
Ericameria arborescens golden fleece °
Ericameria linearifolia narrow-leaved goldenbush °
Erigeron foliosus leafy fleabane °
Gnaphalium palustre lowland cudweed °

APPENDIX 1: FLORA & FAUNA COMPENDIA

	<i>Grindelia camporum</i>	gum-plant ^e
	<i>Hazardia squarrosa</i>	saw-toothed goldenbush ^o
	<i>Helianthus annuus</i>	common sunflower ^o
	<i>Hemizonia fasciculata</i>	fascicled tarweed ^e
	<i>Heterotheca grandiflora</i>	telegraph weed ^o
	<i>Lepidospartum squamatum</i>	scalebroom ^o
	<i>Rafinesquia californica</i>	California chicory ^e
*	<i>Silybum marianum</i>	milk thistle ^e
*	<i>Sonchus asper</i>	prickly sow-thistle ^o
*	<i>Sonchus oleraceus</i>	common sow-thistle ^o
*	<i>Xanthium strumarium</i>	cocklebur ^o

BORAGINACEAE - BORAGE FAMILY

	<i>Amsinckia menziesii</i>	small-flowered fiddleneck ^e
	<i>Cryptantha clevelandii</i>	white forget-me-not ^e

BRASSICACEAE - MUSTARD FAMILY

*	<i>Brassica nigra</i>	black mustard ^o
*	<i>Hirschfeldia incana</i>	short-podded mustard ^o
*	<i>Raphanus sativus</i>	wild radish ^e
*	<i>Sisymbrium officinale</i>	hedge-mustard ^e

CACTACEAE - CACTUS FAMILY

	<i>Opuntia littoralis</i>	coastal prickly pear ^o
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CAPPARIDACEAE - CAPER FAMILY

	<i>Isomeris arborea</i>	bladderpod ^e
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CAPRIFOLIACEAE - HONEYSUCKLE FAMILY

	<i>Sambucus mexicana</i>	blue elderberry ^o
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CHENOPODIACEAE - GOOSEFOOT FAMILY

*	<i>Atriplex semibaccata</i>	Australian saltbush ^e
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CONVOLVULACEAE - MORNING-GLORY FAMILY

	<i>Calystegia macrostegia</i>	western bindweed ^o
	<i>Cuscuta californica</i>	California dodder ^o

CUCURBITACEAE - GOURD FAMILY

	<i>Cucurbita foetidissima</i>	coyote-melon ^o
	<i>Marah macrocarpus</i>	wild cucumber ^o

EUPHORBIACEAE - SPURGE FAMILY

	<i>Eremocarpus setigerus</i>	dove weed ^o
*	<i>Ricinus communis</i>	castor bean ^o

FABACEAE - PEA FAMILY

	<i>Lotus scoparius</i>	deerweed ^o
	<i>Lupinus arboreus</i>	bush lupine ^o

FAGACEAE - OAK FAMILY

	<i>Quercus agrifolia</i>	coast live oak ^o
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GERANIACEAE - GERANIUM FAMILY

*	<i>Erodium botrys</i>	longbeak stork's bill filaree ^o
*	<i>Erodium cicutarium</i>	red-stemmed filaree ^o

APPENDIX 1: FLORA & FAUNA COMPENDIA

HYDROPHYLLACEAE - WATERLEAF FAMILY

Phacelia cicutaria caterpillar phacelia^o

LAMIACEAE - MINT FAMILY

* *Marrubium vulgare* horehound^o
Salvia apiana white sage^o
Salvia leucophylla purple sage^o
Salvia mellifera black sage^o

MYOPORACEAE - MYOPORUM FAMILY

* *Myoporum laetum* myoporum^o

NYCTAGINACEAE - FOUR-O'CLOCK FAMILY

Abronia villosa desert sand-verbena^e
Mirabilis californica wishbone bush^e

OLEACEAE - OLIVE FAMILY

*@ *Ligustrum* sp. privet^o

ONAGRACEAE - EVENING-PRIMROSE FAMILY

Epilobium canum California fuchsia^o

POLYGONACEAE - BUCKWHEAT FAMILY

* *Rumex crispus* curly dock^o

RHAMNACEAE - BUCKTHORN FAMILY

Ceanothus cuneatus buck brush^o

SALICACEAE - WILLOW FAMILY

@ *Populus fremontii* Fremont's cottonwood^o
Salvia lasiandra var. *lasiandra* Pacific willow^o

SAPINDACEAE - SOAPBERRY FAMILY

* *Cupaniopsis anacardioides* carrotwood^o

SCROPHULARIACEAE - FIGWORT FAMILY

Keckiella cordifolia heart-leaved penstemon^e
Mimulus aurantiacus orange bush monkey-flower^o

SOLANACEAE - NIGHTSHADE FAMILY

Datura wrightii western jimsonweed^o
* *Nicotiana glauca* tree tobacco^o
Solanum douglasii Douglas' nightshade^o

ANGIOSPERMAE (MONOCOTYLEDONS)

ARECACEAE - PALM FAMILY

*@ *Phoenix canariensis* date palm^o
*@ *Washingtonia robusta* Mexican fan palm^o

LILIACEAE - LILY FAMILY

*@ *Agave americana* century plant^e
Chlorogalum pomeridianum soap lily^e
Yucca whipplei our lord's candle^o

APPENDIX 1: FLORA & FAUNA COMPENDIA

POACEAE - GRASS FAMILY

*	<i>Arundo donax</i>	giant reed °
*	<i>Avena barbata</i>	slender wild oat °
*	<i>Avena fatua</i>	common wild oat °
*	<i>Bromus diandrus</i>	ripgut grass °
*	<i>Bromus hordeaceus</i>	soft chess °
*	<i>Bromus madritensis</i> var. <i>rubens</i>	red brome °
*@	<i>Cortaderia atacamensis</i>	pampas grass °
	<i>Leymus condensatus</i>	giant wild rye °

FAUNAL COMPENDIUM

The following list includes the 107 species observed (marked °) or expected (marked °) to occur on or in the immediate vicinity of the project site. Expectation of occurrence is based on the known ranges and habitat requirements of each species. Only locally breeding and over-wintering birds are listed. Transients (migrants) and vagrants other than those seen during the survey are not included. The site is within the range of a number of bat species in several families, but it is assumed that none of the species occur on the project site due to the lack of various habitat elements. As their distribution varies according to season, and as the precise habitat requirements of each species are not well known, it is difficult to determine which species may be foraging over the project site.

AMPHIBIANS (3)

PLETHODONTIDAE - LUNGLESS SALAMANDERS

E	<i>Batrachoseps nigriventris</i>	black-bellied slender salamander °
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BUFONIDAE - TRUE TOADS

E	<i>Bufo boreas halophilus</i>	California toad °
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HYLIDAE - TREEFROGS

E	<i>Pseudacris regilla</i>	Pacific treefrog °
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REPTILES (10)

PHRYNOSOMATIDAE

	<i>Sceloporus occidentalis</i>	
	<i>longpipes</i>	Great Basin fence lizard °
	<i>Uta stansburiana elegans</i>	western side-blotched lizard °

SCINCIDAE - SKINKS

	<i>Plestiodon skiltonianus</i>	
	<i>skiltonianus</i>	Skilton's skink °

ANGUIDAE - ALLIGATOR LIZARDS

	<i>Elgaria multicarinatus webbia</i>	San Diego alligator lizard °
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COLUBRIDAE - COLUBRID SNAKES

	<i>Coluber constrictor mormon</i>	western yellow-bellied racer °
	<i>Hypsiglena ochrorhyncha</i>	
	<i>klauberi</i>	San Diego nightsnake °
	<i>Lampropeltis getula californiae</i>	common kingsnake °

APPENDIX 1: FLORA & FAUNA COMPENDIA

<i>Masticophis flagellum piceus</i>	red coachwhip ^e
<i>Pituophis catenifer annectens</i>	San Diego gopher snake ^e
VIPERIDAE - VIPERS	
<i>Crotalus oreganus helleri</i>	Southern Pacific rattlesnake ^e

BIRDS (64)

CATHARTIDAE - NEW WORLD VULTURES

<i>Cathartes aura</i>	turkey vulture ^o
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ACCIPITRIDAE - HAWKS

<i>Accipiter striatus</i>	sharp-shinned hawk ^o
<i>Accipiter cooperii</i>	Cooper's hawk ^o
<i>Buteo lineatus</i>	red-shouldered hawk ^o
<i>Buteo jamaicensis</i>	red-tailed hawk ^o

FALCONIDAE - FALCONS

<i>Falco sparverius</i>	American kestrel ^o
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PHASIANIDAE - PHEASANTS & QUAILS

<i>Callipepla californica</i>	California quail ^o
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COLUMBIDAE - PIGEONS & DOVES

* <i>Columba livia</i>	rock dove ^o
<i>Zenaida macroura</i>	mourning dove ^o

CUCULIDAE - CUCKOOS & ROADRUNNERS

<i>Geococcyx californianus</i>	greater roadrunner ^o
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TYTONIDAE - BARN OWLS

<i>Tyto alba</i>	common barn-owl ^e
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STRIGIDAE - TRUE OWLS

<i>Bubo virginianus</i>	great horned owl ^o
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APODIDAE - SWIFTS

<i>Aeronautes saxatalis</i>	white-throated swift ^e
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TROCHILIDAE - HUMMINGBIRDS

<i>Calypte anna</i>	Anna's hummingbird ^o
<i>Calypte costae</i>	Costa's hummingbird ^e
<i>Selasphorus sasin</i>	Allen's hummingbird ^o

PICIDAE - WOODPECKERS

<i>Melanerpes formicivorus</i>	acorn woodpecker ^o
<i>Colaptes auratus</i>	northern flicker ^o

TYRANNIDAE - TYRANT FLYCATCHERS

<i>Sayornis nigricans</i>	black phoebe ^o
<i>Sayornis saya</i>	Say's phoebe ^o
<i>Tyrannus vociferans</i>	Cassin's kingbird ^e
<i>Tyrannus verticalis</i>	western kingbird ^o

APPENDIX 1: FLORA & FAUNA COMPENDIA

VIREONIDAE - VIREOS

Vireo huttoni Hutton's vireo^o

CORVIDAE - JAYS & CROWS

Aphelocoma coerulescens scrub jay^e
Corvus brachyrhynchos American crow^o
Corvus corax common raven^o

HIRUNDINIDAE - SWALLOWS

Tachycineta bicolor tree swallow^e
Tachycineta thalassina violet-green swallow^e
Stelgidopteryx serripennis northern rough-winged swallow^e
Hirundo rustica barn swallow^e

AEGITHALIDAE - BUSHTITS

Psaltiriparus minimus bushtit^e

TROGLODYTIDAE - WRENS

Thryomanes bewickii Bewick's wren^o
Troglodytes aedon house wren^e

REGULIDAE – KINGLETS

Regulus calendula ruby-crowned kinglet^o

SYLVIIDAE - OLD WORLD WARBLERS AND GNATCATCHERS

Poliophtila caerulea blue-gray gnatcatcher^o

TURDIDAE - THRUSHES

Sialia mexicana western bluebird^e
Turdus migratorius American robin^e

MIMIDAE - THRASHERS

Mimus polyglottos northern mockingbird^o

STURNIDAE - STARLINGS

* *Sturnus vulgaris* European starling^o

BOMBYCILLIDAE - WAXWINGS

Bombycilla cedrorum cedar waxwing^e

PARULIDAE - WOOD-WARBLERS

Vermivora celata orange-crowned warbler^e
Dendroica coronata yellow-rumped warbler^o
Wilsonia pusilla Wilson's warbler^e

EMBERIZIDAE - EMBERIZIDS

Pipilo erythrophthalmus spotted towhee^o
Pipilo crissalis California towhee^o
Aimophila ruficeps rufous-crowned sparrow^o
Spizella passerina chipping sparrow^e
Poocetes gramineus vesper sparrow^o
Chondestes grammacus lark sparrow^o
Amphispiza belli sage sparrow^e
Passerculus sandwichensis savannah sparrow^o
Passerella iliaca fox sparrow^o
Melospiza melodia song sparrow^e

APPENDIX 1: FLORA & FAUNA COMPENDIA

<i>Melospiza lincolnii</i>	Lincoln's sparrow ^o
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow ^o
<i>Zonotrichia leucophrys</i>	white-crowned sparrow ^o

CARDINALIDAE - CARDINALS, SALTATORS, AND ALLIES

<i>Pheucticus melanocephalus</i>	black-headed grosbeak ^e
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ICTERIDAE - BLACKBIRDS

<i>Sturnella neglecta</i>	western meadowlark ^o
<i>Euphagus cyanocephalus</i>	Brewer's blackbird ^e
<i>Icterus cucullatus</i>	hooded oriole ^e
<i>Icterus bullockii</i>	Bullock's oriole ^e

FRINGILLIDAE - FINCHES

<i>Carpodacus mexicanus</i>	house finch ^o
<i>Carduelis psaltria</i>	lesser goldfinch ^o

PASSERIDAE - OLD WORLD SPARROWS

* <i>Passer domesticus</i>	house sparrow ^e
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MAMMALS (30)

DIDELPHIDAE - NEW WORLD OPOSSUMS

* <i>Didelphis virginiana</i>	Virginia opossum ^e
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VESPERTILIONIDAE - EVENING BATS

<i>Myotis evotis</i>	long-eared myotis ^e
<i>Myotis thysanodes</i>	fringed myotis ^e
<i>Myotis volans</i>	long-legged myotis ^e
<i>Myotis californicus</i>	California myotis ^e
<i>Myotis ciliolabrum</i>	western small-footed myotis ^e
<i>Myotis leibii</i>	small-footed myotis ^e
<i>Eptesicus fuscus</i>	big brown bat ^e
<i>Lasiurus blossevillei</i>	western red bat ^e
<i>Lasiurus cinereus</i>	hoary bat ^e
<i>Antrozous pallidus</i>	pallid bat ^e

MOLOSSIDAE - FREE-TAILED BATS

<i>Tadarida brasiliensis</i>	Brazilian free-tailed bat ^e
<i>Eumops perotis</i>	western mastiff bat ^e

LEPORIDAE - HARES & RABBITS

<i>Sylvilagus audubonii</i>	desert cottontail ^o
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SCIURIDAE - SQUIRRELS

<i>Spermophilus beecheyi</i>	California ground squirrel ^o
* <i>Sciurus niger</i>	fox squirrel ^e

GEOMYIDAE - POCKET GOPHERS

<i>Thomomys bottae</i>	Botta's pocket gopher ^o
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HETEROMYIDAE - POCKET MICE & KANGAROO RATS

<i>Perognathus longimembris</i>	little pocket mouse ^e
<i>Perognathus californicus</i>	California pocket mouse ^e

APPENDIX 1: FLORA & FAUNA COMPENDIA

CRICETIDAE - NEW WORLD RATS & MICE

<i>Peromyscus californicus</i>	California mouse ^e
<i>Peromyscus maniculatus</i>	deer mouse ^e
<i>Neotoma fuscipes</i>	dusky-footed woodrat ^e

MURIDAE - OLD WORLD RATS & MICE

* <i>Rattus rattus</i>	black rat ^e
* <i>Rattus norvegicus</i>	Norway rat ^e
* <i>Mus musculus</i>	house mouse ^e

CANIDAE - WOLVES & FOXES

<i>Canis latrans</i>	coyote ^o
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PROCYONIDAE - RACCOONS

<i>Procyon lotor</i>	raccoon ^e
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MUSTELIDAE - WEASELS, SKUNKS & OTTERS

<i>Mephitis mephitis</i>	striped skunk ^e
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FELIDAE - CATS

<i>Felis rufus</i>	bobcat ^e
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CERVIDAE - DEER

<i>Odocoileus hemionus</i>	mule deer ^e
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APPENDIX 2

SENSITIVE SPECIES EVALUATIONS



APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive biotic resources reported in the project vicinity and their known or expected statuses on the site are discussed in-depth in these accounts. The status of each resource was determined by consideration of known preferred ecologic parameters and direct observation for plants, known habitat preferences and direct observation for faunal components, and direct observation for habitat types.

There are 72 biotic elements considered sensitive by resource management organizations and are known to occur in the region (only the 69 sensitive plants and wildlife are evaluated). This determination is based on local knowledge of LDC biologists and searches of appropriate references and databases. Sources used for the determination of sensitive biological resources and their potential presence onsite are as follows: **wildlife** - U.S. Fish and Wildlife Service (USFWS) (2008), California Department of Fish and Game (1980, 1989), California Natural Diversity Data Base (CNDDB 2008), Remsen (1978), and Partners in Flight (2006); **plants** - USFWS (2008), CDFG (1989, 2008), CNDDB (2008), and California Native Plant Society (CNPS, 2008) (Smith and Berg 1988); and **habitats** - CNDDB (2008) and Holland (1986).

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APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive plants known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.							
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	NatureServe	CNPS	Page
Woven-spored lichen	<i>Texosporium sancti-jacobi</i>	N	--	--	G3/S1.1	--	1
Southern Tarplant	<i>Centromadia parryi</i> ssp. <i>australis</i>	N	--	--	G4T2/S2.1	1B.1	2
Santa Susana Tarplant	<i>Deinandra minthornii</i>	N	--	R	G2/S2.2	1B.2	2
Lyon's Pentachaeta	<i>Pentachaeta lyonii</i>	N	E	E	G1/S1.1	1B.1	3
White Rabbit Tobacco	<i>Pseudognaphalium leucocephalum</i>	P	--	--	G4/S3.2	2.2	4
Chaparral Ragwort	<i>Senecio aphanactis</i>	N	--	--	G3?/S1.2	2.2	5
Greata's Aster	<i>Symphyotrichum greatae</i>	N	--	--	G2/S2.3	1B.3	6
Blochman's Dudleya	<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	N	--	--	G2T2/S2.1	1B.1	6
Agoura Hills Dudleya	<i>Dudleya cymosa</i> ssp. <i>agourensis</i>	N	T	--	G5T1/S1.2	1B.2	7
Marcescent Dudleya	<i>Dudleya cymosa</i> ssp. <i>marcescens</i>	N	T	R	G5T2/S2.2	1B.2	8
Conejo Dudleya	<i>Dudleya parva</i>	N	T	--	G2/S2.1	1B.2	8
Verity's Dudleya	<i>Dudleya verityi</i>	N	T	--	G1/S1.1	1B.2	9
Braunton's Milk-vetch	<i>Astragalus brauntonii</i>	N	E	--	G2/S2.1	1B.1	10

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive plants known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.							
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	NatureServe	CNPS	Page
Ross' Pitcher Sage	<i>Lepechinia rossii</i>	N	--	--	G1/S1.2	1B.2	11
Abrams' Oxytheca	<i>Acanthoscyphus parishii</i> var. <i>abramsii</i>	N	--	--	G4?T2/S2.2	1B.2	12
Conejo Buckwheat	<i>Eriogonum crocatum</i>	N	--	R	G2/S2.1	1B.2	13
Dune Larkspur	<i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	N	--	--	G4T2/S2.2	1B.2	13
Umbrella Larkspur	<i>Delphinium umbraculorum</i>	N	--	--	G2G3/S2S3.3	1B.3	14
Mesa Horkelia	<i>Horkelia cuneata</i> ssp. <i>puberula</i>	N	--	--	G4T2/S2.1	1B.1	15
Plummer's Mariposa Lily	<i>Calochortus plummerae</i>	P	--	--	G3/S3.2	1B.2	15
Late-flowered Mariposa Lily	<i>Calochortus weedii</i> var. <i>vestus</i>	N	--	--	G3G4T2/S2.2	1B.2	16
Ojai Fritillary	<i>Fritillaria ojaiensis</i>	N	--	--	G1/S1.2	1B.2	17
Vernal Barley	<i>Hordeum intercedens</i>	N	--	--	G3G4/S3S4	3.2	17
Chaparral Nolina	<i>Nolina cismontane</i>	N	--	--	G1/S1.1	1B.2	18
California Orcutt Grass	<i>Orcuttia californica</i>	N	E	E	G2/S2.1	1B.1	19

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.								
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations	Page
INVERTEBRATE								
Riverside Fairy Shrimp	<i>Streptocephalus woottoni</i>	N	E	--	--	G1/S1	IUCN: EN	20
Santa Monica Grasshopper	<i>Trimerotropis occidentaloidea</i>	N	--	--	--	G1G2/S1S2	IUCN: EN	20
FISH								
Arroyo Chub	<i>Gila orcutti</i>	N	--	--	SC	G2/S2	USFS: S IUCN: VU	21
Santa Ana Sucker	<i>Catostomus santaanae</i>	N	T	--	SC	G1S1	USFS: S	22
Southern Steelhead	<i>Oncorhynchus mykiss irideus</i>	N	E	--	SC	G5T2Q/S2	--	22
AMPHIBIANS								
Western Spadefoot	<i>Spea hammondi</i>	P	--	--	SC	G3/S3	BLM: S IUCN: NT	23
Sierra Madre Yellow-legged Frog	<i>Rana muscosa</i>	N	E	--	--	G1/S1	IUCN: VU	24
California Red-legged Frog	<i>Rana aurora draytonii</i>	N	T	--	SC	G4T2T3/S2S3	USFS: S IUCN: NT	25

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.								
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations	Page
REPTILES								
Southwestern Pond Turtle	<i>Actinemys marmorata pallida</i>	N	--	--	SC	G3G4T2T3Q/S2	BLM: S IUCN: VU	26
Coast (San Diego) Horned Lizard	<i>Phrynosoma coronatum blainvillei</i>	P	--	--	SC	G4G5/S3S4	BLM: S	27
Coast (California) Horned Lizard	<i>Phrynosoma coronatum frontale</i>	P	--	--	SC	G4G5/S3S4	BLM: S	28
Coastal Western Whiptail	<i>Aspidoscelis tigris stejnegeri</i>	P	--	--	SC	G5T3T4/S2S3	--	29
Two-striped Garter Snake	<i>Thamnophis hammondi</i>	N	--	--	SC	G3/S2	BLM: S IUCN: DD USFS: S	30
BIRDS								
California Condor	<i>Gymnogyps californianus</i>	N	E	E	--	G1/S1	ABC: GL Audubon: WL CDF: S IUCN: CR USBC: WL	30

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.								
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations	Page
White-tailed Kite (nesting)	<i>Elanus leucurus</i>	PT	--	--	FP	G5T3Q/S1	--	31
Sharp-shinned Hawk	<i>Accipiter striatus</i>	OT	--	--	WL	G5/S3	IUCN: LC	32
Cooper's Hawk	<i>Accipiter cooperii</i>	OT	--	--	WL	G5/S3	IUCN: LC	33
Golden Eagle	<i>Aquila chrysaetos</i>	PT	--	--	FP/SSC	G5/S3	BLM: S CDF: S IUCN: LC USFWS: BCC	34
Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	N	C	E	--	G5T3Q/S1	IUCN: LC USFS: S USFWS: BCC	34
Burrowing Owl	<i>Athene cunicularia hypugaea</i>	N	--	--	SC	G4/S2	BLM: S IUCN: LC USFWS: BCC	35
Allen's Hummingbird	<i>Selasphorus sasin</i>	O	--	--	--	G5/SNR	Audubon: WL IUCN: LC USBC: WL	36

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.								
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations	Page
Least Bell's Vireo	<i>Vireo bellii pusillus</i>	N	E	E	--	G5T2/S2	ABC: GL Audubon: WL IUCN: NT USBC: WL USFWS: BBC	37
California Horned Lark	<i>Eremophila alpestris actia</i>	N	--	--	WL	G5T3Q S3	IUCN: LC	38
Bank Swallow (nesting)	<i>Riparia riparia</i>	N	--	T	--	G5/S2S3	IUCN: LC	38
Coastal California Gnatcatcher	<i>Poliophtila californica californica</i>	P	T	--	SC	G3T2/S2	ABC: GL Audubon: WL IUCN: LC USBC: WL	39
Southern California Rufous-crowned Sparrow	<i>Aimophila ruficeps canescens</i>	O	--	--	WL	G5T2T4/S2S3	IUCN: LC	41
Lark Sparrow	<i>Chondestes grammacus</i>	O	--	--	--	G5/SNR	--	42
MAMMALS								
Hoary Bat	<i>Lasiurus cinereus</i>	PT	--	--	SC	G5/S4?	IUCN: VU WBWG: H	42

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Sensitive wildlife known to occur in the vicinity of the project site, their statuses under various agencies, and their status onsite.								
Common Name	Scientific Name	Presence Onsite	Federal Status	State Status	CDFG	NatureServe	Other Organizations	Page
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	PT	--	--	--	G5/S2S3	BLM: S IUCN: VU WBWG: H	43
Pallid Bat	<i>Antrozous pallidus</i>	PT	--	--	SC	G5/S3	BLM: S IUCN: LC USFS: S WBWG: H	44
Western Mastiff Bat	<i>Eumops perotis californicus</i>	PT	--	--	SC	G5T4/S3?	BLM: S IUCN: VU WBWG: H	45
San Diego Desert Woodrat	<i>Neotoma lepida intermedia</i>	N	--	--	SC	G5T3?/S3?	IUCN: DD	45
American Badger	<i>Taxidea taxus</i>	N	--	--	SC	G5/S4	IUCN: LC	46

FOOTNOTES FOR SENSITIVE BIOLOGICAL RESOURCES

Presence Onsite

- O Species **O**ccurs onsite as a year-round resident or breeds onsite.
L Species **L**ikely occurs onsite.
P Species **P**ossibly may occur onsite.
PT Species **P**ossibly may occur onsite as a Transient. For birds and bats – no nesting/roosting habitat occurs onsite.
U Species is **U**nlikely to occur onsite.
N **N**o occurrence onsite.
Un Data for the species is limited and its natural history has not been fully described.
N[†] **N**o occurrence onsite and no species account provided because the sensitive resource has no possibility of occurrence onsite.
T Indicates species are **T**ransient
E For habitats, **E**lements of the habitat occur onsite.

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Federal Status – The Federal Endangered Species Act is administered by the United States Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration Fisheries (NOAA).

- E Endangered: Species is in immediate danger of extirpation or extinction from existing pressures.
- T Threatened: Species not presently in eminent danger of extinction, but is likely to become an Endangered species in the foreseeable future in the absence of special protection and management efforts.
- C Candidate: Candidate species are plants and animals for which the Service has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities.
- D Delisted: Species is no longer in immediate danger of extirpation or extinction nor is it likely to reach this status in the foreseeable future. Delisted species are monitored according to a post-delisting monitoring plan.

State Status – The California Endangered Species Act of 1984 (CESA) (Fish & Game Code §§2050, *et seq.*) and the Native Plant Protection Act of 1977 (NPPA) (Fish & Game Code §§1900-1913) generally parallel the main provisions of the Federal Endangered Species Act and are administered by the California Department of Fish and Game.

- E Endangered: a species of plant, fish, or wildlife which is "in serious danger of becoming extinct throughout all, or a significant portion of its range." This designation is limited to species or subspecies native to California. (CESA)
- T Threatened: a native species or subspecies of a bird, mammal, fish amphibian, reptile or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts. (CESA)
- R Rare: (applies to plants only) a species, subspecies, or variety is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. (This designation was replaced by "threatened" for all animal species in 1985) (NPPA)

CDFG - The Wildlife Branch, Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, reptiles, and amphibians. The Fisheries Branch is responsible for updates to the Fish Species of Special Concern document.

- SSC: Species of Special Concern; native species not having state or federal Threatened or Endangered Species status, but thought to warrant monitoring due to declining population numbers. (Includes those species tracked in the CNDDDB but not given any other special status.)
- FP: Fully Protected; The classification of Fully Protected was the State's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts. The Fish and Game Code sections dealing with Fully Protected species state that these species "....may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research. This language arguably makes the "Fully Protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003 the code sections dealing with fully protected species were amended to allow the Department to authorize take resulting from recovery activities for state-listed species.
- WL: Watch List. The species warrants further monitoring and review, but no actions or legal protection are given.

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

NatureServe – The California Department of Fish and Game maintains the California Natural Diversity Database (CNDDDB) in conjunction with NatureServe to help drive conservation decisions, aid in the environmental review of projects and land use changes, and provide baseline data helpful in recovering endangered species and for research projects. NatureServe ranks are shorthand formulas that provide information on the rarity of a species or subspecies, both throughout its global range and its range within the State.

GLOBAL RANKS*: Worldwide status of a full species: G1 to G5

G1 = Extremely endangered: <6 viable occurrences (EO's) or <1,000 individuals, or < 2,000 acres of occupied habitat

G2 = Endangered: about 6-20 EO's or 1,000 - 3,000 individuals, or 2,000 to 10,000 acres of occupied habitat

G3 = Restricted range, rare: about 21-80 EO's, or 3,000 – 10,000 individuals, or 10,000 – 50,000 acres of occupied habitat

G4 = Apparently secure; some factors exist to cause some concern such as narrow habitat or continuing threats

G5 = Demonstrably secure; commonly found throughout its historic range

STATE RANKS*: Statewide status of a full species or a subspecies: S1 to S5

Same general definitions as global ranks, but just for the range of the taxa within California.

T-RANKS*: Status of a subspecies throughout its range: T1 to T5

A subspecies is given a T-rank. This is attached to the G-rank for the full species. The S-rank, in this case, will refer to the status of the subspecies within California. The T-rank has the same general definitions as the global ranks.

* Uncertainty about the rank of an element is expressed in two major ways: by expressing the rank as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3) or by adding a ? to the rank (eg., S2? Indicates more certainty than S2S3, but less than S2).

Q Questionable taxonomy: Taxonomic distinctiveness of this entity at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or the inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority conservation priority.

CNPS – The California Native Plant Society tracks the conservation status of hundreds of plant species and maintains the CNPS *Inventory of Rare and Endangered Plants of California*. The CNPS Rare Plant Program's data are widely accepted as the standard for information on the rarity and endangerment status of the California flora.

1A CNPS Priority List 1A: plant presumed extinct in CA.

1B CNPS Priority List 1B: plant Rare, Threatened, or Endangered in CA and elsewhere; eligible for state listing.

2 CNPS Priority List 2: plant rare, threatened, or Endangered in CA, but more common elsewhere; eligible for state listing.

3 CNPS Priority List 3: more information is needed about this species; some eligible for state listing.

4 CNPS Priority List 4: on watch list for plants of limited distribution.

The CNPS Threat Rank is an extension added onto the CNPS List and designates the level of endangerment by a 1 to 3 ranking as follows:

.1 - Seriously threatened in California (high degree/immediacy of threat)

.2 - Fairly threatened in California (moderate degree/immediacy of threat)

.3 - Not very threatened in California (low degree/immediacy of threats or no current threats known)

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Other Organizations

ABC: Green list - The American Bird Conservancy Green List contains all the highest priority birds for conservation in the continental U.S. and Canada. It builds on the species assessments conducted for many years by Partners in Flight for land birds and expands it to include shorebirds, waterbirds, and waterfowl.

Audubon: WatchList (WL) species are those facing population declines and/or threats such as habitat loss on their breeding and wintering grounds, or with limited geographic ranges. The WatchList is a science-based system that focuses attention on at-risk bird species so that limited resources are spent where they are most needed. More information is available at: <http://www.audubon.org/bird/watchlist/index.html>.

BLM: S - Bureau of Land Management Sensitive. BLM Manual §6840 defines sensitive species as "...those species that are (1) under status review by the FWS/NMFS; or (2) whose numbers are declining so rapidly that Federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats." Existing California-BLM policy concerning the designation of sensitive species identifies two conditions that must be met before a species may be considered as BLM sensitive: (1) a significant population of the species must occur on BLM-administered lands, and (2) the potential must exist for improvement of the species' condition through BLM management. The "Sensitive Species" designation is not meant to include federally listed species, proposed species, candidate species or State listed species. It is BLM policy to provide sensitive species with the same level of protection that is given federal candidate species.

FS: S – Forest Service: Sensitive: The USDA Forest Service defines sensitive species as those plant and animal species identified by a regional forester that are not listed or proposed for listing by the federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

FWS: BCC - Fish and Wildlife Service: Birds of Conservation Concern: The goal of the Birds of Conservation Concern 2002 report is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent our highest conservation priorities and draw attention to species in need of conservation action.

IUCN - The World Conservation Union, through its Species Survival Commission assess, on a global scale, the conservation status of species, subspecies, varieties and even selected subpopulations in order to highlight taxa threatened with extinction, and therefore promote their conservation.

DD Data Deficient: inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status.

EN Endangered: faces very high risk of extinction in the wild

LC Least Concern: does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened.

LR/LC Lower Risk: has been evaluated and does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.

Subcategory: Least Concern (taxa which do not qualify for Conservation Dependent or Near Threatened).

LR/NT Lower Risk: has been evaluated and does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable.

Subcategory: Near Threatened (taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable).

NT Near Threatened: is close to qualifying for or is likely to qualify for a threatened category in the near future.

VU Vulnerable: faces high risk of extinction in the wild.

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

There is an additional hierarchical alphanumeric system of criteria and subcriteria for those species that qualify as Threatened (eg.VU/B1+2c). Please refer to *The IUCN Red List of Threatened Species 2001 Categories and Criteria* (v. 3.1) for further details (<http://www.redlist.org/>).

USBC: The United States Bird Conservation Watch List (WL). Includes the Partners in Flight (PIF) Watch List, the United States Shorebird Conservation Plan Watch List, and the Waterbird Conservation for the Americas Watch List. This combined watch list is available through the American Bird Conservancy at: <http://www.abcbirds.org/watchlist/index.htm>. Information on Partners in Flight is available at: <http://www.partnersinflight.org/>. Information on the United States Shorebird Conservation Plan is available at: <http://shorebirdplan.fws.gov/>. Information on the North American Waterbird Conservation Plan is available at: <http://www.pwrc.usgs.gov/nacwcp/testarea/nacwcp/pubs/continentalplan.cfm>.

WBWG - The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and Provinces of British Columbia and Alberta, and Northern Mexico.

High (H) Priority: Species considered the highest priority for funding, planning, and conservation actions based on species distribution, status, ecology and known threats (Imperiled)

Medium (M) Priority: Species that warrant closer evaluation, more research, and conservation actions of both the species and possible threats, generally due to a lack of meaningful information about the species.

Low (L) Priority: Current information indicates that the population is stable and major changes in status in the near future are unlikely, although there may be localized concerns and conservation actions would still apply.

Xerces - The Xerces Society Red list of pollinators. The Xerces Society is an international non-profit organization dedicated to protecting biological diversity through invertebrate conservation.

CI Critically Imperiled: At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

Note: range designations for plant species in the species accounts follow the Jepson Manual designations.

Woven-spored Lichen

Texosporium sancti-jacobi

Presence Onsite: No. The habitat elements with which the species is typically associated with do not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: None

NatureServe: G3/S1.1

Description: This lichen forms a thin whitish to pale grayish crustose thallus on organic matter and organic soil. Patches of thalli with clusters of apothecia range in size from 0.5 to 3 cm in diameter. Apothecia are circular, from 0.5 to 1.5 mm in diameter, with a thalline margin (colored like the thallus). The centers of the apothecia are filled with a characteristic dark powdery spore mass ranging from blackish to olive green in color, and sometimes tinged with bright yellow. The spores are two-celled, which will be apparent only in the immature spores found at the base of the apothecium. As the spores mature, they become tightly wrapped with fungal hyphae that become progressively darker and thicker, thus obscuring the spore structure. Spore sizes including the fungal coat are about 36-44 x 20-26 microns, while the spores themselves are 19-26 x 10-14 microns

Communities: Found in arid to semi-arid grasslands, shrublands, or savannas. Parent materials are noncalcareous, including basalt, granite, and mixed noncalcareous alluvium. Soils developed on these parent materials vary greatly, from very fine textured soils on basalt to sandy loams, to soils with a very high content of fine or coarse sand. Soil depth varies greatly, from thin soils over bedrock to moderately thick soils but restricted by a caliche layer or deep alluvial soils. The southern occurrences (California) include *Adenostoma fasciculatum*, *Festuca octoflora*, *Bromus* cf.

rubens, *Eriogonum fasciculatum*, and *Pinus sabiniana*.

Distribution: West-central California, central Oregon, Washington, and southwestern Idaho.

Populations: The species is monotypic and known from about 15 extant occurrences.

Threats: The greatest threat to this lichen is loss of habitat. This can occur by conversion of rangelands to agriculture and suburban developments, invasion of weedy annual grasses, and overgrazing which can result in extensive destruction of the soil crust.

General Conservation Measures: It is restricted by its intolerance of calcareous, saline, and heavily disturbed sites; where it does occur, *T. sancti-jacobi* constitutes less than one percent of the biotic crust. Observations suggest *Texosporium* populations can recolonize areas following severe disturbance, albeit over a long period of time, and that it would respond favorably to improved management practices and habitat protection efforts

Information Sources:

NatureServe. 2008. NatureServe Explorer: An online encyclopedia of life [web application]. Version 5.0. NatureServe, Arlington, Virginia. Accessed on Dec. 20, 2008 from <http://www.natureserve.org/explorer>.
Ponzetti, J. 1999. *Texosporium sancti-jacobi* field guide. Washington Department of Natural Resources' Natural Heritage Program. Accessed on Dec. 20, 2008 from <http://www1.dnr.wa.gov/nhp/refdesk/lis/ts/plantrnk.html>

Southern Tarplant

Centromadia parryi ssp. *australis*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Also, the habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.1

NatureServe: G4T2/S2.1

Description: Southern tarplant is an annual herb with orange-yellow ray flowers and brown or black disk flowers that bloom from May to November. At maturity the densely glandular stem ranges from 4 to 30 inches in height. The leaves are generally puberulent, may be glandular, and are soft-haired or bristled. The lower leaves are deeply 1-to-2 divided and have a length between 2 and 8 inches. The upper leaves are linear with margins that are entire or few-toothed.

Communities: Marshes and Swamps, Valley and Foothill Grassland, Vernal Pools. Typically found in seasonally moist (alkaline) grasslands.

Distribution: Los Angeles, Orange, Santa Barbara, San Diego, and Ventura Counties; Baja California;

Populations: Found locally in U.S.G.S. Quad –Newbury Park. Nearest recorded occurrence is in 7 miles to the southeast of the site in Calabasas at Borchard Road.

Threats: Habitat loss due to urbanization, off-road vehicles, and foot traffic. Genetic isolation due to habitat fragmentation.

General Conservation Measures: Protection of existing sites and the hydrology that produces the necessary habitat.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Santa Susana Tarplant

Deinandra minthornii

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Also, the site lacks the rocky outcrops with which the species is typically associated.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: Rare

CNPS Status: 1B.1

NatureServe: G2/S2.2

Description: Santa Susana tarplant is a leafy perennial shrub growing to a height of 3 feet and spreading out to 12 feet in diameter. It is very resinous, fragrant, and has numerous stiff, straight leafy stems arising from the base. The stem and leaves are somewhat rough and covered with short bristly hairs. The small, crowded leaves are alternate, entire margined, linear and slightly thickened. The heads are mostly solitary at the ends of long peduncles. There are generally eight yellow ray flowers and 18-23 yellow staminate disk flowers. The yellow anthers are an easy way to differentiate this

species from *Deinandra fasciculata*, which has black anthers.

Communities: Chaparral and Coastal Scrub. Typically found in rocky terrain. Found at elevations that range from 920-2500 feet.

Distribution: Los Angeles and Ventura Counties

Populations: Found locally in U.S.G.S. Quads – Calabasas, Thousand Oaks, Point Dume. The nearest known population is 8 miles to the southeast of the site. Known from only a few locations in the Santa Susana and Santa Monica Mts.

Threats: Loss of suitable habitat due to residential development.

General Conservation Measures: Protection of known populations and suitable habitat within its known range.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Lyon's Pentachaeta

Pentachaeta lyonii

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Also, the site lacks the microhabitat elements (clay soils of volcanic origin; exposed soils that exhibit a microbiotic crust which may inhibit invasion by other plant competitors; and a mosaic of bare ground (>10%) patches in an area with less than 60

percent cover) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: Endangered

CNPS Status: 1B.1

NatureServe: G1/S1.1

Description: Lyon's pentachaeta is an herbaceous, annual plant in the sunflower family (Asteraceae). The plants are small, slender annuals with linear, entire, ciliate leaves, mostly yellow-rayed heads on long peduncles, and pappus bristles 8–12; phyllaries narrowly lanceolate, hirsute-pilose; leaves 3–6 mm wide. Typically blooms from March to August.

Communities: The following is taken from the final rule designation for critical habitat for Lyon's pentachaeta:

The species tends to occur on rocky clay soils of volcanic origin. It has been recorded in areas with a large percentage of bare ground (>60%), a low proportion of vegetative cover (<25%), and it does not compete well with dense annual grasses or shrubs. *P. lyonii* will persist in stable populations without disturbance if site conditions such as exposed soils that exhibit a microbiotic crust inhibit invasion by shrubs and annual grasses, or it may require periodic disturbances to remove plant competitors.

Common species associated with chaparral communities in this region of California are chamise (*Adenostoma fasciculatum*), California lilacs (*Ceanothus* spp.), manzanitas (*Arctostaphylos* spp.), sages (*Salvia* spp.), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), sugar bush (*Rhus ovata*), and yucca (*Yucca whipplei*). Common species associated with coastal sage scrub are California sagebrush (*Artemisia californica*), sages, California buckwheat, lemonade berry (*Rhus*

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integrifolia), encelia (*Encelia californica*), and goldenbush (*Isocoma menziesii*).

The pocket grasslands within these shrub communities that support *P. lyonii* are comprised of native and nonnative grasses including purple needlegrass (*Nassella pulchra*), wild oat (*Avena* spp.), and bromes (*Bromus* spp.); as well as a variety of herbs.

Based on the current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, it has been determined that the primary constituent elements for *Pentachaeta lyonii* are: (1) Clay soils of volcanic origin; (2) Exposed soils that exhibit a microbiotic crust which may inhibit invasion by other plant competitors; and (3) A mosaic of bare ground (>10%) patches in an area with less than 60 percent cover.

Distribution: Los Angeles and Ventura Counties.

Populations: Found locally in U.S.G.S. Quads –Thousand Oaks, Newbury Park, Simi. Known from fewer than twenty extant occurrences in Santa Monica Mtns. and western Simi Hills.

Threats: Threatened by development, alteration of fire regimes, trampling, vehicles, nonnative plants, and recreational activities.

General Conservation Measures:

Protection of known populations and suitable habitat within its known range. No successful translocation attempts as of 1994.

Information sources:

California Native Plant Society (CNPS). 2006. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

California's Plants and Animals. 2008. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Department of the Interior: Fish and Wildlife Service. 2006. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Astragalus brauntonii* and *Pentachaeta lyonii*; Final Rule. Federal Register: 71-219. Accessed on Dec. 20, 2008 from [wais.access.gpo.gov](http://www.wais.access.gpo.gov)

Nuttall. *Pentachaeta* Trans. Amer. Philos. Soc., n. s. 7: 336. 1840. Flora of North America. eFloras.org. Accessed on Dec. 20, 2008 from <http://www.efloras.org>

Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

White Rabbit Tobacco

Pseudognaphalium leucocephalum

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site, the site does have the vegetation communities and habitat elements associated with the species in the sandy wash area in the northwest portion of the property.

Onsite Conservation Measures: See Mitigation Measure 4 in the Biological Resources Technical Report.

Federal Status: None

State Status: None

CNPS Status: 2.2

NatureServe: G4/S3.2

Description: Perennial rhizomatous forb to 60 cm; herbage densely white woolly. Leaves alternate, narrow, entire. Typical blooming period is from August to November.

Communities: Chaparral, Coastal Sage Scrub, Cismontane Woodland, Riparian Woodland; sandy, gravelly soils. Found at elevations that range from 0 – 6,500 feet.

Distribution: Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, Ventura Counties; Arizona, Baja California, New Mexico, Sonora - Mexico, Texas.

Populations: Found locally in U.S.G.S. Quads - Newbury Park

Threats: Loss of habitat due to urbanization.

General Conservation Measures: Many collections and records are historical. New field surveys needed to establish current range and populations of the species. Protection of known populations and suitable habitat within its range is necessary.

Information sources:

California Native Plant Society (CNPS). 2004. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Chaparral Ragwort

Senecio aphanactis

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the alkaline habitat element that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 2.2

NatureServe: G3?/S1.2

Description: A slender, upward-branched annual herb that ranges in height from 4 to 8 inches. The plant is glabrous except for the heads. The ¾ to 1-½ inches long leaves are linear to oblanceolate with sub-entire to lobed margins. The heads barely radiate with the few yellow to orange ray flowers having ligules that are slightly longer than the phyllaries. The yellowish disk flowers number less than 40. The flowers bloom from January to April.

Communities: Chaparral, Cismontane Woodland, Coastal Scrub. Typically found in flat alkaline areas within these habitats.

Distribution: Orange, Santa Barbara, Los Angeles, Riverside, San Diego, and Ventura Counties; Baja California. The plant is considered rare in Orange, Riverside, and Los Angeles Counties.

Populations: Found locally in U.S.G.S. Quads – Newbury Park, Camarillo.

Threats: Loss of suitable habitat due to urbanization and alteration of hydrology that produces the necessary alkaline habitat.

General Conservation Measures: Protection of suitable habitat and the hydrology that produces the alkaline soil.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Greata's Aster

Symphotrichum greatae

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.3

NatureServe: G2/S2.3

Description: A perennial herb with a sparsely hairy stem that ranges in height from 20 to 50 inches at maturity. The basal and cauline leaves range in size from 2 to 6 inches and are elliptic to ovate and hairy. The violet ray and yellow disk flowers are evident during its blooming period of June to October.

Communities: Broad-leaved Upland Forest, Chaparral, Cismontane Woodland, Lower Montane Coniferous Forest, and Riparian Woodland. This uncommon plant is typically found in damp locations in canyons. Found at elevations that range from 1000-6000 feet.

Distribution: Los Angeles County

Populations: Found locally in U.S.G.S. Quad – Piru

Threats: Loss of suitable habitat due to residential development and recreational activities.

General Conservation Measures:

Protection of suitable habitat from development and protection of flowering plants from recreational activities.

Information sources:

California Native Plant Society (CNPS). 2004. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993 ed. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Blochman's Dudleya

Dudleya blochmaniae ssp. *blochmaniae*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (open, rocky slopes, often serpentine or clay-dominated) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.1

NatureServe: G2T2/S2.1

Description: The subspecies of *Dudleya blochmaniae* are succulent perennials that have a rosette of leaves that sprout from a corm. A member of the stonecrop family, plants produce white flowers with red or purple markings on short stalks. Blooms from April to June

Communities: Coastal Bluff Scrub, Chaparral, Coastal Scrub, Valley and Foothill Grassland. Open, rocky slopes, often serpentine or clay-dominated. Found at elevations ranging from 15-1,400 feet.

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Distribution: Los Angeles, Orange, Santa Barbara, San Diego, San Luis Obispo, Ventura Counties. Known from fewer than twenty occurrences in California, and fewer than five in Baja California.

Populations: Found locally in U.S.G.S. Quads – Newbury Park, Camarillo

Threats: Seriously threatened by development.

General Conservation Measures:

Protection of known populations and suitable habitat within its known range.

Information sources:

California Native Plant Society (CNPS). 2008.

Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

CPC National Plant Collection Profile. 2006.

Dudleya blochmaniae ssp. *blochmaniae*. Center for Plant Conservation. Accessed on Dec. 20, 2008 from <http://www.centerforplantconservation.org/>

Treatment from the Jepson Manual. 1993.

University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Agoura Hills Dudleya

Dudleya cymosa ssp. *agourensis*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: None

CNPS Status: 1B.2

NatureServe: G5T1/S1.2

Description: A synonym of *Dudleya cymosa* ssp. *ovatifolia* in the *Jepson Manual*.

A succulent perennial that has a rosette of leaves (oblong to elliptic to ovate) that sprout from a corm. The plant produces yellow flowers. Blooms from May to June.

Communities: Chaparral, Cismontane Woodland. Open, rocky volcanic slopes. Found at elevations ranging from 650-1,600 feet.

Distribution: Los Angeles and Ventura Counties. Known only from the western Santa Monica Mountains.

Populations: Found locally in U.S.G.S. Quad –Thousand Oaks.

Threats: Threatened by development.

General Conservation Measures:

Protection of known populations and suitable habitat within its known range.

Information sources:

California Native Plant Society (CNPS). 2008.

Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Treatment from the Jepson Manual. 1993.

University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Marcescent Dudleya

Dudleya cymosa ssp. *marcescens*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: Rare

CNPS Status: 1B.2

NatureServe: G5T2/S2.2

Description Marcescent dudleya is a succulent perennial in the stonecrop family (Crassulaceae) with a basal rosette of leaves. Its flowers are bright yellow and often marked with red. The plant produces yellow flowers. Blooms from April to July.
Communities: Chaparral. Found at elevations ranging from 400-1,700 feet meters.

Distribution: Los Angeles and Ventura Counties. Known only from eight occurrences in the Santa Monica Mountains.

Populations: Found locally in U.S.G.S. Quad –Newbury Park.

Threats: Threatened by development and foot traffic.

General Conservation Measures: Protection of known populations and suitable habitat within its known range.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Conejo Dudleya

Dudleya parva

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (north-facing volcanic cliffs, adjacent grasslands) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: None

CNPS Status: 1B.2

NatureServe: G2/S2.1

Description: This species occurs in a very unique habitat and is unique even among other species in the Dudleya genus. This species has a flowering stalk that grows from 5 to 18 cm in length, tipped with pale yellow flowers that are often flecked with red on the keel. Other local Dudleya species are evergreen, while the Conejo live-forever is vernal, with its rosette of linear leaves withering by early summer. Blooms from May to June.

Communities: Coastal Scrub, Foothill and Valley Grassland. North-facing volcanic cliffs, adjacent grasslands. Found at elevations ranging from 200-1,600 feet.

Distribution: Ventura County. Known from approximately ten occurrences from the western end of Simi Hills to Conejo Grade. Sites have from 25 to a few thousand individuals, with the majority containing numbers in the hundreds.

Populations: Found locally in U.S.G.S. Quads – Thousand Oaks, Newbury Park, Simi.

Threats: Threatened by horticultural collecting, recreation, vehicles, and urbanization.

General Conservation Measures: Habitat and population preservation. Populations may be undetectable during dry years and may be suppressed by nonnative species.

Information Sources:

- California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
- CPC National Plant Collection Profile. 2006. *Dudleya parva*. Center for Plant Conservation. Accessed on Dec. 20, 2008 from <http://www.centerforplantconservation.org/>
- Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Verity's Dudleya

Dudleya verityi

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (north-facing volcanic outcrops) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: None

CNPS Status: 1B.2

NatureServe: G1/S1.1

Description: *Dudleya verityi* is unique among *Dudleya* taxa in that it forms multiple rosettes, as many as 100 to a colony. Rosette leaves are 0.8 to 2 inches long and 0.2 to 0.4 inches wide; floral stems are 2 to 5.9 inches tall; corollas are lemon-yellow with petal tips recurved up to 90 degrees.

Communities: Chaparral, Cismontane Woodland, Coastal Sage Scrub. North-facing volcanic outcrops. Found at elevations ranging from 200-500 feet elevation.

Distribution: *Dudleya verityi* is limited to three populations occurring in a narrow band 4 miles in length along the lower slopes of Conejo Mountain, from Long Grade Canyon to U.S. highway 101. The northernmost population consists of over a thousand individuals and another is considered abundant in the limited habitat it occupies.

Populations: Found locally in U.S.G.S. Quads – Newbury Park and Camarillo.

Threats: Historically, the lower slopes of Conejo Mountain have been the site for quarrying of construction-grade rock. The land is zoned for mineral extraction and there are abandoned, active, and proposed quarry operations within the distribution of *D. verityi*. The majority of the distribution of *D. verityi* is privately owned in a region with rapidly increasing development. Only a small portion of habitat is owned by a public agency (Ventura County Flood Control District).

General Conservation Measures:

Information Sources:

- California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Thomas, Tim. Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for Two Plants and Threatened Status for Four Plants From Southern California. Federal Register. Volume 62. Number 19. Page 4172-4183. US Fish and Wildlife Service. Accessed on Dec. 20, 2008 from <http://www.gpoaccess.gov/fr/index.html>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Braunton's Milk-vetch

Astragalus brauntonii

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (limestone and other carboniferous soils) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: None

CNPS Status: 1B.1

NatureServe: G2/S2.1

Description: Braunton's milk-vetch is a robust, short-lived perennial with lilac flowers in the pea family (Fabaceae). It is one of the tallest members of the genus, reaching a height of 60 inches and is covered with woolly hairs. The species is readily distinguished from the only other perennial species of *Astragalus* in the area, *Astragalus trichopodus*, by being woolly as opposed to strigose (covered with sharp, stiff-appressed hairs) or glabrous (without hairs), by having two-chambered rather than one-chambered pods, and also by having purple rather than white to greenish flowers.

Communities: Closed-cone Coniferous Forests, Chaparral, Coastal Scrub, Valley and Foothill Grasslands. Apparently a limestone endemic.

Distribution: Los Angeles, Orange, and Ventura Counties. Known from only ten occurrences that are primarily on limestone outcrops.

Populations: Found locally in U.S.G.S. Quad – Thousand Oaks.

Threats: Threatened by development and alteration of local fire regimes.

General Conservation Measures: This species has a life span of 2 to 3 years, and depending on fire interval, a given population is visible only once in 20 to 50 years or longer. Fire is a natural requirement for the survival of this species. The natural frequency of fire in the habitat of *Astragalus brauntonii* is unknown, but estimates range between 20 years to over 100 years with an average of 70 year intervals. Increasing human populations in southern California have resulted in higher fire frequencies, mostly in the form of arson set fires. Higher frequency fires, especially when they occur in hot dry conditions, may be detrimental to Braunton's milk-vetch because the potential to eliminate viable seed in the soil is higher than in a naturally occurring fires. Prescribed burns in known Braunton's milk-vetch habitat may be beneficial to the species.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from

<http://www.cnps.org/inventory>

Thomas, Tim. Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for Two Plants and Threatened Status for Four Plants From Southern California. Federal Register. Volume 62. Number 19. Page 4172. US Fish and Wildlife Service. Accessed on Dec. 20, 2008 from <http://www.gpoaccess.gov/fr/index.html>

Treatment from the Jepson Manual. 1993 ed.
University of California-Berkeley.
Accessed on Dec. 20, 2008 from
[http://ucjeps.berkeley.edu/interchange.h
tml](http://ucjeps.berkeley.edu/interchange.html)

Round-leaved Filaree

California macrophyllum

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: List 2.1

NatureServe: G3/S3.1

Description: A small annual herb with small white flowers tinged in red or purple, which blooms from March to May. In southern California it is primarily found on friable clay soil in grasslands. Although the range of round-leaved filaree, also known as large-leaved filaree, is quite extensive throughout California, the number of populations in Southern California is quite low.

Communities: Cismontane Woodlands, Foothill and Valley Grasslands.

Distribution: Found throughout coastal California in suitable habitat.

Populations: Found locally in U.S.G.S. Quad – Simi, Thousand Oaks.

Threats: Urbanization of habitat suitable for round-leaved filaree.

General Conservation Measures: The very crumbly clay soil that round-leaved filaree is found in is quite rare in southern California and should be protected from further development.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from
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<http://sandiego.sierraclub.org/rareplants>

Treatment from the Jepson Manual. 1993 ed. University of California-Berkeley. Accessed on Dec. 20, 2008 from
[http://ucjeps.berkeley.edu/interchange.h
tml](http://ucjeps.berkeley.edu/interchange.html)

Ross' Pitcher Sage

Lepechinia rossii

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G1/S1.2

Description: *Lepechinia rossii* (Lamiaceae) is described as a new species narrowly endemic to the western Transverse Ranges of southern California. It is a member of section *Calycinae*, which includes four additional species endemic to California and adjacent Baja California, Mexico. *Lepechinia rossii* is most readily distinguished from other members of section *Calycinae* by geniculate inflorescence axes, bent at 60–90° angles relative to the

subtending stems, and by large, foliaceous inflorescence bracts which are generally equaling or exceeding their adjacent flowers in length, and little reduced distally. Typical blooming period is from May to September.

Communities: Chaparral. Found at elevations ranging from 1,000-2,300 feet.

Distribution: Los Angeles and Ventura Counties.

Populations: Found locally in U.S.G.S. Quad – Fillmore. At present, two populations are documented, one in the Liebre Mountains (Los Angeles County) and one in the Topatopa Mountains (Ventura County), both occurring in chaparral, on public lands administered by the U.S. Forest Service.

Threats: Conservation concerns include habitat degradation by off-highway vehicle activity, power line maintenance, petroleum exploration and extraction, and anthropogenic changes in fire frequency.

General Conservation Measure: Protection of known populations and suitable habitat.

Information Sources:

Boyd, S., Mistretta, O. 2006. *Lepechinia rossii* (Lamiaceae) A narrow endemic from the western Transverse Ranges of Southern California. Madrono 53: 77-84.

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Abrams' Oxytheca

Acanthoscyphus parishii var. *abramsii*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the

vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G4?T2/S2.2

Description: Plants erect or spreading, 1-3 dm. Stems slender, 1-3(-7) cm. Leaf blades 1-3(-5) cm. Inflorescences: bracts (2-)3, triangular, awns 0.5-1.5 mm. Peduncles 0.8-2 cm. Involucres: awns 7-16, dark red, 3-4 mm. Blooms from June – August.

Communities: Chaparral; sandy or shale soils; Found at elevations ranging from 5,000-6,000 feet.

Distribution: Santa Barbara and Ventura Counties. Variety *abramsii* is known only from the San Rafael Mountains, Topatopa Mountain, and Mount Pinos.

Populations: Found locally in U.S.G.S. Quad –Topatopa Mountains.

Threats: Loss of populations and suitable habitat due to increased competition from nonnative plants.

General Conservation Measures: The remaining populations must be protected from further threats.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

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Conejo Buckwheat

Eriogonum crocatum

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (Conejo volcanic soil) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: Rare

CNPS Status: 1B.2

NatureServe: G2/S2.1

Description: The Conejo buckwheat is a perennial shrub less than 0.5 m high by 0.5-1 m wide. Its foliage is a striking silvery green, with woolly leaves. The flowers are clusters of tiny bright, sulfur yellow flowers. It has no dormancy period. Blooms from April to July.

Communities: Chaparral, Coastal Sage Scrub. Primarily occurs on rocky slopes composed of Conejo volcanics. Found at elevations ranging from 150-1,700 feet.

Distribution: Los Angeles, Riverside, and San Bernardino Counties. Known from fewer than twenty occurrences.

Populations: Found locally in U.S.G.S. Quads – Thousand Oaks, Newbury Park.

Threats: Potentially threatened by development.

General Conservation Measures: Protection of known populations and associated habitats.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Dune Larkspur

Delphinium parryi ssp. *blochmaniae*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (sandy soils) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G4T2/S2.2

Description: Stem 15–110 (generally < 80) cm, generally curled-puberulent, especially below; Leaves: basal generally 0 in flower; lobes of cauline 5–15; Inflorescence: flowers 3–60; pedicels 5–68 mm, 8–50 mm apart, ± ascending, generally puberulent; Flower: sepals generally reflexed, lateral 16–25 mm, spur 11–16 mm; lower petal blades 7–10 mm, paler than sepals. Blooms from April to May.

Communities: Chaparral, Coastal Dunes. Sandy soils. Found at elevations ranging from 0-6,500 feet.

Distribution: Los Angeles, Riverside, and San Bernardino Counties. Known from fewer than twenty occurrences.

Populations: Found locally in U.S.G.S. Quads – Thousand Oaks, Camarillo.

Threats: Threatened by development.

General Conservation Measures: Protection of known populations and associated habitats.

Information Sources:

California Native Plant Society (CNPS). 2008.
Inventory of Rare and Endangered
Plants (online edition, v7-07d). Rare
Plant Scientific Advisory Committee.
California Native Plant Society.
Sacramento, CA. Accessed on Dec. 20,
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[http://ucjeps.berkeley.edu/interchange.h
tml](http://ucjeps.berkeley.edu/interchange.html)

Umbrella Larkspur

Delphinium umbraculorum

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G2G3/S2S3.3

Description: Stems 40-70(-90) cm; base often reddish, glabrous or puberulent. Leaves usually present on proximal 1/5 of stem at anthesis; basal leaves 0-3 at anthesis; cauline leaves 3-7 at anthesis; petiole 0.8-12 cm. Leaf blade round to pentagonal, 1.5-4 × 2-6 cm, nearly glabrous; ultimate lobes 3-13, width 3-20 mm (basal), 1-8 mm (cauline). Inflorescences (5-)10-25(-45)-flowered, open, narrowly pyramidal; pedicel 0.5-3(-7) cm, glabrous to puberulent; bracteoles 3-7 mm from flowers, green, linear, 3-6 mm, puberulent. Flowers: sepals dark blue, puberulent, lateral sepals spreading, 9-16 × 4-7 mm, spurs gently upcurved, ascending 30-45° above horizontal, 8-14 mm; lower

petal blades elevated, exposing stamens, 3.5-6 mm, clefts 0.5-1.5 mm; hairs densest near junction of blade and claw above base of cleft, centered or on inner lobes, white. Fruits 9-16(-19) mm, 2.5-3(-4) times longer than wide, puberulent. Seeds: seed coat cells brick-shaped, cell margins straight, surfaces smooth. Blooms from April to June.

Communities: Cismontane Woodland;

slopes in oak woodlands. Found at elevations ranging from 1,000-2,000 feet.

Distribution: Monterey, Santa Barbara, San Luis Obispo, Ventura Counties.

Populations: Found locally in U.S.G.S.

Quads – Santa Paula Peak.

Threats: Limited range makes any habitat loss significant.

General Conservation Measures:

Protection of known populations and associated habitats.

Information Sources:

California Native Plant Society (CNPS). 2008.
Inventory of Rare and Endangered
Plants (online edition, v7-07d). Rare
Plant Scientific Advisory Committee.
California Native Plant Society.
Sacramento, CA. Accessed on Dec. 20,
2008 from
<http://www.cnps.org/inventory>
H. F. Lewis & Epling, Brittonia. 8: 19. 1954.
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<http://www.efloras.org>
Treatment from the Jepson Manual. 1993.
University of California-Berkeley.
Accessed on Dec. 20, 2008 from
[http://ucjeps.berkeley.edu/interchange.h
tml](http://ucjeps.berkeley.edu/interchange.html)

Mesa Horkelia

Horkelia cuneata ssp. *puberula*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (dry, sandy soils) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G4T2/S2.1

Description: Mesa horkelia is a small, matted, green to gray perennial shrub with white flowers that bloom from February to September. Open clusters of several–many separate flowers or < 10-flowered clusters. Hairs are sparse and could be glandular.

Communities: Coastal Chaparral, Coastal Sage Scrub, Cismontane Woodland. Dry, sandy soils. Found at elevations ranging from 230-2,300 feet.

Distribution: Outer South Coast Ranges, South Coast (especially foothill edge of Los Angeles Basin). Many historical occurrences extirpated; need current information on status of occurrences.

Populations: Found locally in U.S.G.S. Quad – Simi.

Threats: Many of the historic locations of mesa horkelia have been lost due to urbanization.

General Conservation Measures: Habitat and population preservation.

Information Sources:

California Native Plants. 2004. *Horkelia cuneata puberula*. Las Pilitas Nursery. Accessed on Dec. 20, 2008 from <http://www.laspilitas.com/plants/824.htm>

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Plummer's Mariposa Lily

Calochortus plummerae

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site, the site does have the vegetation communities and habitat elements associated with the species. Additionally, nine (9) occurrences of the species have been recorded in the CNDDDB within 12 miles of the project site, with the nearest populations located approximately 4 miles to the east and 4 miles to the north.

Onsite Conservation Measures: See Mitigation Measure 4 in the Biological Resources Technical Report.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G3/S3.2

Descriptions: A perennial bulbiferous herb that is 1 to 2 feet in height. Basal leaves appear withering and measure 4 to 8 inches in length. The cauline leaves are 1 to 17 inches long with the upper most leaves in-rolled. The inflorescence consists of 2 to 6 flowers that have leaf-like bracts. The flower is bell-shaped with pale-pink to rose colored petals that turn purple with age. A central band of long, yellow hairs is prominent on the inside of the flower.

Communities: Chaparral, Cismontane Woodland, Coastal Scrub, Lower Montane Coniferous Forest, Foothill and Valley Grassland. Plummer's Mariposa lily is typically found on arid, rocky slopes, areas of brush, and openings in chaparral.

Distribution: Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. Widespread but local in coastal southern California.

Populations: Found locally in U.S.G.S. Quads – Simi.

Threats: Habitat loss due to urbanization.

General Conservation Measures: Fire suppression in areas with a dominant cover of nonnative annuals may limit sexual reproduction; prescribed fires could increase numbers.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

Carter, Michael L. Plummer's Mariposa Lily. Southern California Wildflowers and Other Plants. 2004. California Plant Names: Latin Name Meanings and Derivations and Southern California Wildflowers. Accessed on Dec. 20, 2008 from <http://www.calflora.net/>

Scott, Dr. Thomas. Plummer's Mariposa Lily. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. 2001. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Late-flowered Mariposa Lily

Calochortus weedii var. *vestus*

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar

habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G3?T2/S2.2

Descriptions: A perennial bulbiferous herb that is 1 to 3 feet in height. Basal leaves appear withering and measure 10 to 15 inches in length. The upper cauline leaves are in-rolled. The inflorescence consists of 2 to 6 flowers. The flower is bell-shaped with squarish petals that are pale cream, purplish, or red-brown in color and also dark-hairy. The anthers are abruptly pointed. Blooms from June to August.

Communities: Chaparral, Cismontane Woodland, Riparian Woodland. Often found in serpentine soils. Found at elevations that range from 900-6,000 feet.

Distribution: Kern, Monterey, Santa Barbara, San Luis Obispo, Ventura Counties.

Populations: Found locally in U.S.G.S. Quads – Santa Paula Peak.

Threats: Threatened by grazing, development, and fire suppression.

General Conservation Measures: Fire suppression in areas with a dominant cover of nonnative annuals may limit sexual reproduction; prescribed fires could increase numbers.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from

<http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993 ed. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Ojai Fritillary

Fritillaria ojaiensis

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G1/S1.2

Descriptions: A perennial bulbiferous herb that is 1.5 to 3 feet in height. Leaves are in 1–3 whorls of 3–5 below and alternate or opposite above; 2–6 inches, linear to narrowly lanceolate. **Flower** nodding; perianth parts 1.5–3 cm, widely lanceolate, dull greenish yellow below with scattered to profuse dark dots; nectary distinct or not, 1/3 perianth length, ± diamond-shaped to ovate, paler than rest of perianth part; style divided 1/2–2/3. Blooms from February to May.

Communities: Broad-leafed Upland Forest, Chaparral, Lower Montane Coniferous Forest. Often found in rocky soils. Found at elevations that range from 1,000–3,500 feet.

Distribution: Sonoma, Monterey, Santa Barbara, San Luis Obispo, Ventura Counties.

Populations: Found locally in U.S.G.S. Quads – Santa Paula Peak. Known from fewer than 20 occurrences.

Threats: Possibly threatened by road maintenance and recreational activities.

General Conservation Measures: Fire suppression in areas with a dominant cover of nonnative annuals may limit sexual reproduction; prescribed fires could increase numbers.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Treatment from the Jepson Manual. 1993 ed. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Vernal Barley

Hordeum intercedens

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (alkaline soils) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 3.2

NatureServe: G3G4/S3S4

Descriptions: Plants annual; loosely tufted. Culms 5–40 cm, erect to geniculate; nodes usually pubescent. Sheaths with stripes of hairs; ligules 0.3–0.8 mm; auricles usually absent, shorter than 2 mm if present; blades to 9 cm long, to 4 mm wide, both surfaces sparsely to densely hairy, hairs spreading. Spikes 2.5–6.2 cm long, 4–6 mm wide, often partially enclosed at maturity, pale green. Glumes straight, usually slightly divergent at maturity. Central spikelets: glumes to 17 mm long, to 0.8 mm wide basally, distinctly flattened near the base; lemmas 4.5–7.5 mm, usually sparsely pubescent towards the base, glabrous distally, awned, awns 5.6–9.8 mm, often slightly divergent at maturity; anthers

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

0.6–1.2 mm. Lateral spikelets usually sterile; glumes to 17.5 mm, distinctly flattened near the base; lemmas 1.7–4.4 mm, blunt to acute, usually unawned, rarely awned, awns to 1.2 mm. Blooms from March to June.

Communities: Coastal Dunes, Coastal Sage Scrub, Foothill and Valley Grassland Saline (flats and depressions), Vernal Pools.

Alkaline soils. Found at elevations that range from 15-3,500 feet.

Distribution: San Diego, Riverside, Los Angeles, Anacapa Island, Kings, Mono, Santa Barbara, San Benito, San Mateo, and Ventura Counties; Santa Barbara Island, San Clemente Island, Santa Cruz Island, Santa Catalina Island, San Nicolas Island, Santa Rosa Island; Baja California, Mexico.

Populations: Found Locally in U.S.G.S. Quads –Newbury Park.

Threats: Most mainland occurrences have been extirpated by development; others are threatened. This species and its habitat are threatened by urbanization, agricultural conversion, discing, trampling from livestock, channelization, and alteration of hydrology.

General Conservation Measures:

Provisionally, it is recommended that all substantial populations in coastal Southern California be protected; significant portions of all smaller populations should also be protected.

Information Sources:

California Native Plant Society (CNPS). 2008.

Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>

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Treatment from the Jepson Manual. 1993 ed. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Chaparral Nolina

Nolina cismontane

Presence Onsite: No. This large, conspicuous species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the habitat elements (sandstone, gabbro soils) that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CNPS Status: 1B.2

NatureServe: G1/S1.1

Description: Chaparral nolina is a large yucca-like perennial evergreen shrub that grows in xeric conditions. Long, wiry, upright or lax, leaves (19-55 inches x .5-1 inch) numbering between 30 and 90 form from a rosette. Woody stems are typically 1 foot in height, but may reach up to 5 feet. Inflorescences compound paniculate with minute white flowers and reddish-brown seeds. Flowering early to mid-spring.

Communities: Coastal Sage Scrub and Chaparral. Sandstone or gabbro soils. Found at elevations that range from 650-4,300 feet.

Distribution: Los Angeles, Orange, San Diego, and Ventura Counties.

Populations: Found locally in U.S.G.S. Quad – Thousand Oaks.

Threats: Residential development and agricultural expansion have led to the loss of populations and potential habitat.

General Conservation Measure: All substantial populations are recommended for protection; significant portions of smaller populations should be placed into natural open space preserves.

Information Sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
Resier, Craig H. Rare Plants of San Diego County. San Diego Chapter-Rare Plants. May 1994. Sierra Club. Accessed on Dec. 20, 2008 from <http://sandiego.sierraclub.org/rareplants>

California Orcutt Grass

Orcuttia californica

Presence Onsite: No. The species was not observed during the surveys of the project site or during the spring floristic surveys that were previously conducted on parcels in the vicinity of the project site that have similar habitat. Additionally, the site lacks the vegetation communities that the species is typically associated with.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: Endangered

CNPS Status: 1B.1

NatureServe: G2/S2.1

Description: A bright green, fragrant annual herb that has stems (2 to 6 inches in length) that are generally prostrate and may form mats. The sticky leaves measure $\frac{1}{3}$ to $\frac{3}{4}$ of an inch long and are very thin. The inflorescences are in spikelets crowded at the tip of the stem.

Communities: Vernal Pools

Distribution: Los Angeles, Riverside, San Diego, and Ventura Counties; Baja California. Extirpated from much of its historical range. Known from highly localized vernal pool habitats widely spread through southern California.

Populations: Found locally in U.S.G.S. Quad – Simi.

Threats: Loss of populations and suitable habitat due to urbanization, agricultural practices, alteration of hydrology that eliminates vernal conditions, competition from nonnative plants, grazing, and off-road vehicles.

General Conservation Measures:

Protection of existing populations from threats and protection of the hydrological processes that produce vernal pools.

Information sources:

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-07d). Rare Plant Scientific Advisory Committee. California Native Plant Society. Sacramento, CA. Accessed on Dec. 20, 2008 from <http://www.cnps.org/inventory>
California Orcutt Grass. California's Plants and Animals. 2003. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>
Treatment from the Jepson Manual. 1993. University of California-Berkeley. Accessed on Dec. 20, 2008 from <http://ucjeps.berkeley.edu/interchange.html>

Riverside Fairy Shrimp

Streptocephalus woottoni

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: None

CDFG: None

NatureServe Rank: G1/S1

Other: IUCN: EN

Description: Small translucent-bodied crustacean.

Habitats: Seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.

Range: Riverside fairy shrimp is limited to southwestern California and northwestern Baja California. It occurs from Los Angeles County south through Orange and western Riverside Counties to coastal San Diego County and the vicinity of Baja Mar north of Ensenada in Baja California.

Food Sources: Non-selective feeder of detritus, bacteria, algal cells, and other microscopic items.

Threats: Urban, agricultural development, modified hydrology due to adjacent road construction, and illegal trash dumping. Unpredictable natural events such as drought or fire may extirpate the Riverside fairy shrimp due to its fragmented and restricted range.

General Conservation Measures:

Immediate protection of vernal pools and the hydrology that is associated with them.

Information Sources:

Scott, Dr. Thomas. 2001. Riverside Fairy Shrimp. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Santa Monica Grasshopper

Trimerotropis occidentaloidea

Presence Onsite: Unknown. Data for the species is limited and its natural history has not yet been fully described.

Onsite Conservation Measures: Unknown

Federal Status: None

State Status: None

CDFG: None

NatureServe Rank: G1G2S1S2

Other: IUCN: EN

Description: No information found.

Habitats: This species has been found on bare hillsides and along dirt trails in chaparral (Rentz and Weissman 1981).

Range: The Santa Monica Mountains grasshopper is known only from the western Santa Monica Mountains in Los Angeles and Ventura Counties.

Food Sources: No information found.

Threats: Two locations inhabited by this species have been destroyed by development.

General Conservation Measures:

Protection of the species' associated habitat.

Information Sources:

Nagano, C and K. Miller. Endangered and Threatened Wildlife and Plants; 90-Day and 12- Month Findings for Eleven Petitions to List Three Blind Harvestmen, Three Micro-blind Harvestmen, One Spider, Two Butterflies, One Moth, Two Crickets, Three Katydid, and Five Grasshoppers. Federal Register: November 22, 1994. Department of the Interior –Fish and Wildlife Services.

Arroyo Chub*Gila orcutti*

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite. The species is known to occur in the watershed that the project site is associated with.

Onsite Conservation Measures: See Mitigation Measure-3a, 3b, and 3c in the Biological Resources Technical Report for specific measures to limit downstream impacts.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G2/S2

Other: USFS: S

Description: Small fish that can reach lengths of nearly 4.75 inches, but typical adult lengths range from 2.75 – 4 inches. Both sexes have chunky bodies, fairly large eyes, and small mouths. Body color is silver or gray to olive-green dorsally, white ventrally, and there usually is a dull gray lateral band. Males can be distinguished from females by their larger fins, and when breeding, by the prominent patch of tubercles on the upper surface of the pectoral fins.

Habitats: The arroyo chub is adapted to survive in the warm fluctuating streams of the Los Angeles Plain. They prefer slow moving or backwater sections of warm to cool streams with substrates of sand or mud. The depth of the stream is typically greater than 15 inches.

Range: The species is now absent from much of its historical native range and is now only abundant in the upper Santa Margarita River and its tributary De Luz Creek, Trabuco Creek below O'Neill Park and San Juan Creek (San Juan Creek drainage), Malibu Creek, and the West Fork of the upper San Gabriel River below Cogswell Reservoir as of 1991. They also

occur, but are scarce, in: Big Tujunga Canyon, Pacoima Creek above Pacoima Reservoir, and in the Sepulveda Flood Control Basin, Los Angeles River drainage; and middle Santa Ana River tributaries between Riverside and the Orange County line, and in the Santa Clara River. Though not naturally occurring in the Santa Clara River, this population may be one of the few viable and genetically pure populations left.

Food Sources: The arroyo chub is omnivorous, feeding primarily on algae, but also consuming other plants, aquatic insects and their larvae, small crustaceans, and feeding extensively on the roots of floating water ferns infested with nematodes.

Threats: The species is threatened by impacts to rivers and streams, including channelization, water diversion, groundwater over drafting, sand and gravel mining, changes in the watershed that result in erosion and debris torrents, pollution, the establishment of introduced or nonnative fishes, and flood control activities.

General Conservation Measures: Management considerations should include preservation and management of key stream sections, as well as the elimination of introduced predatory fishes such as the green sunfish and largemouth bass. The preservation of refuges for this and other endemic species is a required step toward curbing present trends, which may lead to extinction. Native fish hatcheries may be a potential source for re-establishing fish populations.

Information Sources:

California's Plants and Animals. 2003. Arroyo Chub. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Scott, Dr. Thomas. 2001. Arroyo Chub. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Santa Ana Sucker

Catostomus santaanae

Presence Onsite: No. The species does not occur in the Calleguas Creek watershed.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: None

CDFG: Species of Special Concern

NatureServe: G1S1

Other: IUCN: VU; USFS: S

Description: A fish that may grow to 10 inches long as an adult. It is silver on the belly and blotched or faintly striped on the back. The Santa Ana sucker has large lips with the upper lip covered with bumps and the lower lip with feelers that are used to taste the bottom of the stream as it searches for food.

Habitats: Streams that are generally small and shallow, that may be swift in canyons and sluggish in the bottomlands, but are subject to severe flooding during winter and spring rains. Santa Ana suckers appear to be most abundant where the water is cool (<72° Fahrenheit), unpolluted, and clear; although they can tolerate and survive in seasonally turbid water. Preferred substrates are generally coarse and consist of gravel, rubble, and boulder, but Santa Ana suckers are also found on sand/mud substrates.

Range: Found in the headwaters of the Los Angeles and San Gabriel River systems and in the lower sections of the Santa Ana River. In the Santa Clara River, the species is thought to have been introduced. In the lower portions of that river system they have hybridized with *Catostomus fumeiventris*.

Food Sources: Mostly algae, diatoms, and detritus scraped from rocks and other hard substrates. Aquatic insects may comprise a small part of their diet.

Threats: The alteration or loss of suitable stream course habitat, the alteration of stream flows due to flood control measures, pollution, and the introduction of nonnative species.

General Conservation Measures:

Immediate steps, such as setting up refuges, are needed to protect the remaining native habitats. The introduction of trout for

fishing purposes needs to cease in Santa Ana sucker habitat. The hydrology that contributes to the necessary riparian habitat also needs to be protected.

Information Sources:

California's Plants and Animals. 2003. Santa Ana Sucker. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Endangered and Threatened Wildlife and Plants: Threatened Status for the Santa Ana Sucker. Federal Register. Volume 65, Number 71, Page 19686. US Fish and Wildlife Service. Accessed on Dec. 20, 2008 from <http://www.gpoaccess.gov/fr/index.html>

Southern Steelhead

Oncorhynchus mykiss irideus

Presence Onsite: No. The species is not currently found in the Calleguas Creek watershed.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: None

CDFG: Species of Special Concern

NatureServe: G5/T2/Q

Other: None

Description: Southern steelhead is a sea-run rainbow trout that has a large mouth with well-developed teeth on both upper and lower jaws. Gill rakers number 16-22 and branchiostegal rays, 9-13. There are 10-12 dorsal fin rays, 8-12 anal fin rays, 9-10 pelvic fin rays, and 11-17 pectoral fin rays. The caudal fin is forked. Scales are small, with 18-35 rows above the lateral line and 14-29 below. The 100-160 lateral line scales are pored.

Habitats: The southern steelhead is an anadromous fish that spawns in freshwater streams and rivers on the coast. The offspring then return to the ocean to mature before returning to its birthplace to spawn.

Range: Virtually every coastal stream in Monterey, San Luis Obispo and Santa Barbara counties north of Point Conception within the last ten years. Southern steelhead evidently once utilized most of the major coastal streams in southern California as well. They still occur in Malibu Creek, Ventura River, Santa Clara River, and Santa Ynez River, although in greatly reduced numbers.

Food sources: Omnivorous.

Threats: Habitat loss, including loss of water flows, and the failure to protect the runs due to inadequate regulatory measures have been the major, or at least the most conspicuous, causes of the decline of southern steelhead.

General Conservation Measures:

Preservation of southern steelhead will require immediate protection and rebuilding of existing spawning runs, and reestablishment of runs in streams and rivers that historically were highly productive.

Information Sources:

California's Plants and Animals. 2003.
Southern Steelhead. California
Department of Fish and Game-Habitat
Conservation Planning Branch.
Accessed on Dec. 20, 2008 from
<http://www.dfg.ca.gov/about/wildlife.html>

Western Spadefoot

Spea hammondi

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, the species has been recorded in the Arroyo Simi watershed and water flow in the unnamed wash on the northwest corner of the site could establish pools that the species could use for breeding. The species would not be active except

during a season of exceptional rainfall that allowed temporary pools to persist for 3 to 6 weeks. Additionally, three (3) occurrences of the species have been recorded in the CNDDDB within 8 miles of the project site, with the nearest located approximately 3.5 miles to the northeast.

Onsite Conservation Measures: See Mitigation Measure 8a and 8b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report. See Mitigation Measure-3a, 3b, and 3c in the Biological Resources Technical Report for specific measures to limit downstream impacts.

Federal Status: Species of Concern

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G3/S3

Other: BLM: S; IUCN: NT

Description: Relatively smooth-skinned toad with a green or gray dorsum, orange-tipped skin tubercle, and venters that are whitish colored. The eyes are pale gold with vertical pupil. The species name is derived from the wedge-shaped black spade on both hind feet. The species typically spends eight to ten months of the year underground, emerging during winter when warm temperatures and rainfall occurs.

Habitats: During most of the year the western spadefoot can primarily be found in grasslands, coastal sage scrub, and chaparral habitats, but may also occur in oak woodlands. Breeding occurs in primarily in rain pools (although observations of breeding in riparian habitats have been made) that persist for at least three weeks and have water temperatures between 50 and 90 degrees Fahrenheit.

Range: North-central California south through the Central Valley and foothills into northern Baja California. Since 1990, there have been reports from Alameda, Butte, Calaveras, Fresno, Kern, Kings, Los Angeles, Madera, Merced, Monterey, Orange, Placer, Riverside, Sacramento, San Benito, San Diego, San Joaquin, San Luis Obispo, Santa Barbara, Stanislaus, Tulare,

Ventura and Yolo counties. Apparently extinct throughout much of lowland southern California but the species still persists in coastal Los Angeles County, Orange County to western Riverside County, and cismontane San Diego County.

Food Sources: Adult western spadefoot toads will forage on a variety of insects, worms, and other invertebrates (including grasshoppers, true bugs, moths, ground beetles, predaceous diving beetles, ladybird beetles, click beetles, flies, ants, and earthworms).

Threats: Habitat destruction due to off-road vehicles, grazing, development, grazing, and projects that impact fluvial processes. Also the introduction of mosquito fish and bullfrogs to pools used for breeding pools threatens some populations.

General Conservation Measures: Habitat protection is the primary strategy for conserving the western spadefoot toad. To complete its life cycle, the species needs appropriate aquatic habitats as well as adjacent upland habitats.

Information Sources:

- Sacramento Fish and Wildlife Species Account.
2004. Western Spadefoot Toad. U.S. Fish and Wildlife Service. Accessed on Dec. 20, 2008 from
http://sacramento.fws.gov/es/spp_info.htm
- Scott, Dr. Thomas. 2001. Western Spadefoot. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>
- Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

typically associated with does not occur onsite. The species does not occur in the Calleguas Creek watershed.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: None

CDFG: Species of Special Concern

NatureServe: G1/S1

Other: IUCN: VU; USFS: S

Description: A medium-sized (~1½-3¼ inch) frog that typically has a brown and yellow coloration, but may also include gray, red, or green-brown. Some individuals may be dark brown with little pattern. The dorsal pattern is composed of variable sized and numbered dark spots. Dorsolateral folds are present, but not usually prominent. The throat is white or yellow and sometimes with mottled with dark pigment. The belly and undersurfaces of the high limbs are yellow, which ranges in hue from pale lemon yellow to an intense sun yellow. The irises are gold with a horizontal, black stripe.

Habitats: In southern California, the species appears to be restricted to streams and small pools in ponderosa pine, montane hardwood-conifer, and montane riparian habitat types. Stagnant pools with a scum of floating algae appear to be avoided, while large clear pools up to 3 feet deep are favored. In the fall they often converge in streams in which only a trickle of water flows and the pools are only a few inches deep and one or two feet across. Adults usually overwinter in water under ice.

Range: Found in the Sierra Nevada, San Gabriel, San Bernardino, and San Jacinto mountains. Typically found at elevations from 4,500 to 12,000 feet. Locally the species was found in five (5) small stream systems within the San Gabriel Mountains and four stream systems in the San Jacinto Mountains.

Sierra Madre Yellow-legged Frog

Rana muscosa

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Food Sources: The larvae of the species forage on algae and diatoms within the substrate. The juveniles and adults forage primarily on aquatic and terrestrial insects, especially beetles, flies, ants, bees, wasps, and true bugs. It may also resort to cannibalism and eating toads.

Threats: Introduction of nonnative fish (for game purposes) and bullfrogs. Accidental introduction of pathogens by humans (researchers and outdoor enthusiasts) may be behind increased mortality and reduced reproduction.

General Conservation Measures: Removal of introduced fish from viable habitat and the reconnection of existing populations to increase genetic variety.

Information Sources:

California's Plants and Animals. 2003.

Mountain Yellow-legged Frog.

California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from

<http://www.dfg.ca.gov/about/wildlife.html>

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Southern California Distinct Vertebrate Population Segment of the Mountain Yellow-legged Frog (*Rana muscosa*). Federal Register. Volume 67, Number 127, Page 44382. 2 July 2002. US Fish and Wildlife Service. Accessed on Dec. 20, 2008 from

<http://www.gpoaccess.gov/fr/index.html>

Scott, Dr. Thomas. 2001. Mountain Yellow-legged Frog. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

California Red-legged Frog

Rana aurora draytonii

Presence Onsite: No. The species was not observed during the surveys of the project site, the habitat with which the species is

typically associated with does not occur onsite, and the highly disturbed condition of the site makes the species highly unlikely to occur onsite. The species does not occur in the Calleguas Creek watershed.

Onsite Conservation Measures: None required.

Federal Status: Threatened

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G4T2T3/S2S3

Other: IUCN: NT

Description: This species is the largest native frog in the western United States, ranging from 1 ½ to 5 inches in length. The undersides of the abdomen and hind legs of adults are mostly red. The back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background color. Tadpoles range from ½ to 6 inches in length and are dark brown and yellow with dark spots.

Habitats: Characterized by deep (>2 feet), still or slow moving water and associated dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes. The species probably cannot be maintained in streams in which the surface water disappears. Juvenile frogs favor open, shallow aquatic habitats with dense submerged vegetation.

Range: The historical ranges was along the coast from Mendocino County in northern California south to northern Baja California, and inland through the northern Sacramento Valley into the foothills of the Sierra Nevada mountains, south to Tulare county, and possibly Kern county. The present distribution ranges from Sonoma and Butte Counties in the north to Riverside County in the south, primarily in the western counties. They are known to occur in about 238 streams or drainages in 23 counties.

Food Sources: Tadpoles primarily eat algae and other vegetation. Adults eat insects, smaller frogs, fish, and mice.

Threats: Initial decline was due to the harvesting of the species for the consumption of frog legs in the late 19th and early 20th century. The introduction of the bullfrog, which preys on the red-legged frog, has probably eliminated the species from the southern Sierra Nevada Mountains. Habitat destruction is currently the most serious threat to the species with most of its critical habitat eliminated since the early part of this century. The ongoing drought in California combined with the limited available habitat will probably cause the extirpation of the species in many localities in the near future.

General Conservation Measures: Protecting existing populations by reducing threats, restoring and creating habitat that will be protected and managed in perpetuity, surveying and monitoring populations and conducting research on the biology and threats of the species, and re-establishing populations of the species within the historic range.

Information Sources:

California Herps. 2004. *Rana aurora draytoni*-California Red-legged Frog. California Reptile and Amphibians. Accessed on Dec. 20, 2008 from <http://www.californiaherps.com/index.html>

Scott, Dr. Thomas. "Red-legged Frog." Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. 2001. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Southwestern Pond Turtle

Actinemys marmorata pallida

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite. The species is known to occur in the watershed that the project site is associated with.

Onsite Conservation Measures: See Mitigation Measure-3a, 3b, and 3c in the Biological Resources Technical Report for specific measures to limit downstream impacts.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G4T2T3/S2S3

Other: BLM: S; IUCN: VU

Description: A medium-sized (4 ¾ - 8 ¼ inch) turtle with a plain brown or khaki coloration. The species lacks prominent markings on its carapace. Males can be distinguished from females at maturity by a light unmarked throat and lower facial area. The plastron of the species varies from dark and light markings to a solid dark or light color. The iris of the turtle is golden-colored with a brown eyestripe.

Habitats: The southwestern pond turtle inhabits slow moving, permanent or intermittent streams, small ponds, small lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and sewage treatment lagoons.

Range: Currently, it ranges south of San Francisco Bay to northern Baja California, Mexico. There are 10 known viable populations within Los Angeles County.

Food Sources: The species is an omnivorous feeder that typically scavenges, but is also an opportunistic predator. Adults ingest plants as part of their diet, which provides nutrients when live prey is unobtainable, but tend to prefer live or dead animal food instead of plant material.

Threats: Loss and alteration of aquatic habitat is the greatest threat to the southwestern pond turtle. Over 90% of wetland habitat within its historic California range has been eliminated by agricultural development, flood control, water diversion projects, and urbanization. Additional threats include predation on young by introduced aquatic species, collection for pets, urban-related predation pressures, and competition with nonnative turtles.

General Conservation Measures:

Conservation management of aquatic turtles should include not only protection of aquatic habitat, but also preservation and restoration of dispersal corridors and adjacent terrestrial habitat (potentially 1800 feet or more from the wetland boundary) for nesting, hibernation, and aestivation.

Information Sources:

- California's Plants and Animals. 2003.
Southwestern Pond Turtle. California Department of Fish and Game-Habitat Conservation Planning Branch.
Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>
- Scott, Dr. Thomas. 2001. Southwestern Pond Turtle. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside.
Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>
- Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

Coast (San Diego)

Horned Lizard

Phrynosoma coronatum blainvillei

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, the species may possibly occur in the unnamed wash on the northwest corner of the site. The species has 12 recorded occurrences (CNDDDB 2008) within the vicinity of the project site. The closest record is approximately 4 miles to the northeast of the site in similar habitat.

Onsite Conservation Measures: See Mitigation Measure 8a and 8b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G4G5/S3S4

Other: BLM: S

Description: Note - Brattstrom (1997) found *Phrynosoma coronatum blainvillei* and *Phrynosoma coronatum frontale* to be synonyms of *Phrynosoma coronatum*. The subspecies are no longer recognized in the scientific domain, but are listed separate in this report to be in concurrence with the CDFG's listing of both species.

A flat-bodied lizard with a large crown of spines on head; the two center spines are longest. Large dark spots are found on the sides of the neck. Two rows of pointed scales fringe trunk. The back is reddish-brown, yellow, or gray with dark blotches. The belly scales are smooth. The winter hibernation begins between August and October and ends in March. Adults are active aboveground in April through July, after which most adults begin summer hibernation. The adults then become active again for a short period before returning to their over-wintering sites.

Habitats: The preferred habitat of the coast horned lizard is open sandy areas within coastal sage or chaparral communities as well as in dry washes and along roads.

Range: In California the species ranges from the Transverse Ranges south to the Mexican border west of the deserts, with the exception of scattered sites along the extreme western desert slope of the Peninsular Ranges. The known elevation range of this species is from 30 feet at the El Segundo dunes (Los Angeles County) to approximately 7000 feet at Tahquitz Meadow, on San Jacinto Mountain, in Riverside County.

Food Sources: Up to 90% of the diet of the species consists of native harvester ants (*Pogonomyrmex* spp.), but does not appear to eat nonnative Argentine ants that have replaced native ants in much of southern California. Other slow moving insects, such as beetles, flies, and caterpillars are consumed opportunistically when encountered.

Threats: Commercial collecting, habitat loss due to agricultural practices, and urbanization are the main reasons cited for the decline of this species. However, one of the growing threats to the species is the continued elimination of its food base by exotic ants.

General Conservation Measures: Protection of suitable habitat and food sources.

Information Sources:

- Brattstrom, B.H. 1997. Status of the Subspecies of the Coast Horned Lizard, *Phrynosoma coronatum*. Journal of Herpetology 31: 434-436.
- California's Plants and Animals. 2003. San Diego Horned Lizard. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>
- Scott, Dr. Thomas. 2001. San Diego Coast Horned Lizard. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>
- Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

Coast (California) Horned Lizard

Phrynosoma coronatum frontale

Presence on the Piute Ponds Project Site:

Possible. Although the species was not observed during the surveys of the project site, the species may possible occur in the in the unnamed wash on the northwest corner of the site. Additionally, one (1) occurrence of the species have been recorded in the CNDDDB within 5 miles to the east of the project site in similar habitat.

Onsite Conservation Measures: See Mitigation Measure 8a and 8b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G4G5/S3S4

Other: BLM: S

Description: Note - Brattstrom (1997) found *Phrynosoma coronatum blainvillei* and *Phrynosoma coronatum frontale* to be synonyms of *Phrynosoma coronatum*. The subspecies are no longer recognized in the scientific domain, but are listed separate in this report to be in concurrence with the CDFG's listing of both species.

A large, dorsoventrally flattened lizard with five (four large, lateral, sometimes curved, and one moderate-sized, median) backwardly projecting head spines; a large shelf above each eye terminating a backwardly projecting, spine-like, scale (postrictal); small, pointed rugose scales on the forehead (frontals); and two parallel rows of pointed scales fringing each side the side of the body. No stripes radiate from the eyes. The dorsal color is highly variable, but typically gray, tan, reddish-brown, or whitish, and usually resembles the prevailing soil color. The venter is yellow to white with discrete, dark spots. The iris is black.

Habitats: The California horned lizard seems to occur in several habitat types, ranging from areas with an exposed gravelly-sandy substrate containing scattered shrubs, to clearings in riparian woodlands, to dry uniform chamise chaparral to annual grassland with scattered perennial seepweed or saltbush.

Range: This California endemic originally had a spotty distribution from Kennett (now under Lake Shasta, Shasta County) southward along the edges of the Sacramento Valley into much of the South Coast Ranges, San Joaquin Valley, and Sierra Nevada foothills to northern Los

Angeles, Santa Barbara, and Ventura Counties.

Food Sources: California horned lizards are recorded as preying on beetles and ants, but probably take many other insects which are seasonally abundant.

Threats: *P. c. frontale* has disappeared from approximately 35% of its range in central and northern California and extant populations are becoming increasingly fragmented with continued development of the region. The negative effects of human disturbance are not limited to the immediate vicinity of land disturbance or human habitation, sometimes effects are manifest at considerable distances (e.g., domestic cats have been observed to eliminate horned lizards within a several km² area from a cat's home base).

General Conservation Measures: Greater effort needs to be directed at preservation of remaining native plant community fragments, especially in the San Joaquin drainage basin, that contain habitat that has never undergone significant substrate disturbance.

Information Sources:

- Brattstrom, B.H. 1997. Status of the Subspecies of the Coast Horned Lizard, *Phrynosoma coronatum*. Journal of Herpetology 31: 434-436.
- California Horned Lizard. 1994. California's Plants and Animals. California Department of Fish and Game-Wildlife Branch. Accessed on June 2008 from <http://www.dfg.ca.gov/habcon/>.
- Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

Coastal Western Whiptail

Aspidoscelis tigris stejnegeri

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, the species may possible occur in the in the unnamed wash on the northwest corner of the site. The species has four recorded occurrence (CNDDDB 2008)

within the vicinity of the project site. The closest record is approximately 5 miles to the east of the site in similar habitat.

Onsite Conservation Measures: See Mitigation Measure 8a and 8b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: None

NatureServe Rank: G5T3T4/S2S3

Other: None

Description: Coastal western whiptails exhibit a wide morphological variation of within the species. They can reach a size of 8 to 12 inches and have 8 ill-defined lateral stripes. The stripes on the sides are less defined than those of the California whiptail, and the species tends to have frequent large dark spots on the throat.

Habitats: Open and often rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations.

Range: The western whiptail ranges through the semiarid and arid desert lowlands of southern California, southern Arizona, adjacent areas of Mexico and western Baja California, Mexico.

Food Sources: Prey items of the western whiptail include termites, scorpions, cockroaches, various insect eggs, larvae, and pupae.

Threats: Habitat loss due to development, widespread use of insecticides, off-road vehicle use, and genetic isolation.

General Conservation Measures: Habitat preservation.

Information Sources:

- Scott, Dr. Thomas. 2001. Coastal Western Whiptail. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>
- Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

Two-striped Garter Snake

Thamnophis hammondi

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite. The species is known to occur in the watershed that the project site is associated with.

Onsite Conservation Measures: See Mitigation Measure-3a, 3b, and 3c in the Biological Resources Technical Report for specific measures to limit downstream impacts.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G3/S2

Other: BLM: S; IUCN: DD; USFS: S

Description: Garter snake with no back stripe, but it may have a faint spot on back of neck. The middle of the back is plain olive, brown, or grayish, with yellowish side stripes usually present and bordered with dark spots. The side stripe occupies 2nd and 3rd scale rows.

Habitats: This species is considered one of the most aquatic of the garter snakes. It is closely associated with streams that have rocky beds and that are bordered by willows; also ponds, lakes, wetlands, and vernal pools. It also occurs in mixed oak, oak woodlands, and chaparral on coastal slopes of mountains and foothills to sea level, but it is rarely found far from water.

Range: From Monterey, California to Baja California.

Food Sources: Adults prey upon tadpoles, frogs, toads, small fish, fish eggs, and earthworms.

Threats: Loss of habitat due to urbanization, disturbances due to recreational activities, alteration of hydrology of habitat, and genetic isolation due to habitat fragmentation of range.

General Conservation Measures:

Protection of suitable habitat and its associated hydrology.

Information Sources:

California's Plants and Animals. 2003. Two-striped Garter Snake. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Scott, Dr. Thomas. 2001. Two-striped Garter Snake. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Stebbins, Robert C. Western Reptiles and Amphibians. New York: Houghton Mifflin Company. 2003.

California Condor

Gymnogyps californianus

Presence Onsite: No. The species was not observed during the surveys of the project site and the nesting habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: Endangered

CDFG: None

NatureServe: G1/S1

Other: ABC: GL; Audubon: WL; CDF: S; IUCN: CR; USBC: WL

Description: North America's largest land bird with a wingspan that measures between 8 ½ and 9 ½ feet at maturity. When perched the bird has a height 45 to 55 inches. The species has a black coloration except for white wing linings, pale feet, and a reddish-orange head (blackish for juveniles).

Habitats: Nests are found on high sandstone cliffs within caves, crevices, behind rock slabs, or on ledges, and are usually surrounded by dense brush. No nesting material is used; the egg is laid on bare ground.

Range: Native, wild California condors were reduced to 6 birds in 1985 before it was decided by the USFWS that all the remaining birds were to be captured and placed in intensive captive breeding programs. Now the condor has been reintroduced into the mountains of southern California north of the Los Angeles basin, in the Big Sur vicinity of the central California coast, near the Grand Canyon in Arizona and Baja California, Mexico. As of July 1st, 2004 there are 47 wild condors in California and 20 of those have been seen soaring in the mountains north of the Los Angeles basin, primarily in the Los Padres National Forest.

Seasonality: Year-round resident of California with some movement north in the summer and returning to the south in the fall.

Food Sources: Feeds only by scavenging; deceased cattle are the primary food source. May also scavenge from the carcasses of sheep, deer, ground squirrels, and other mammals. After gorging itself the condor may go several days without feeding. Carcasses must be in open areas to enable take-off and landing by the large bird.

Threats: Collisions with power and telephone lines, lead poisoning from scavenging from the carcasses of game animals, and poisoning from various chemical pollutants.

General Conservation Measures: Federal and state programs have been developed to re-establish California condor populations within the state of California and Arizona.

Information Sources:

California's Plants and Animals. 2003.
California Condor. California
Department of Fish and Game-Habitat
Conservation Planning Branch.
Accessed on Dec. 20, 2008 from

<http://www.dfg.ca.gov/about/wildlife.html>

Enature. 2008. California Condor. National Wildlife Federation. Accessed on Dec. 20, 2008.

<http://www.enature.com/>

Hopper Mountain National Wildlife Refuge Complex –California Condor. 2006. US Fish and Wildlife Service-Pacific Region. US Fish and Wildlife Service. Accessed on Dec. 20, 2008 from <http://hoppermountain.fws.gov/cacondor/>

Polite, C. B116-California Condor. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

White-tailed Kite (nesting)

Elanus leucurus

Presence Onsite: Possibly occurs as a Transient. The white-tailed kite may forage over the site as a transient, but it is unlikely to nest onsite due to a lack of appropriate habitat.

Onsite Conservation Measure: None required. There are no reasonable conservation measures to reduce the loss of potential foraging area on the site.

Federal Status: None

State Status: None

CDFG: FP

Other: None

Description: A raptor with a profile similar to a gull that has a white head, tail, and undersides. The back and wings are pale gray, with black shoulders and black patch on the underwings. The white-tailed kite hovers over prey with raised wings and drops straight down. Prefers open grasslands with a woodland edge or fringe.

Communities: Open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands

Range: Resident in coastal and interior California, Arizona, and southern Texas. Also in Central and South America. Found in appropriate habitat throughout its range.

Seasonality: A common to uncommon resident with nomadic tendencies during the winter that expands the range of the species.

Food Sources: Its diet consists primarily of small mammals such as rodents, but may also prey on birds, insects, reptiles, and amphibians.

Threats: Loss of nesting and foraging habitat.

General Conservation Measures: The preservation of the habitat that the prey of the white-tailed kite inhabits would ensure a food source for the kite.

Information Sources:

Scott, Dr. Thomas. 2001. White-tailed kite. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregions.ucr.edu>

Enature. 2008. White-tailed kite. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>

Sharp-shinned Hawk (nesting)

Accipiter striatus

Presence Onsite: Occurs as a Transient. The species was observed foraging over the site during surveys; however, the lack of dense riparian woodland habitat makes it very unlikely that the species would nest onsite.

Onsite Conservation Measures: None required. There are no reasonable conservation measures to reduce the loss of potential foraging area on the site.

Federal Status: None
State Status: None
CDFG: Watch List
NatureServe Rank: G5/S3
Other: IUCN: LC

Descriptions: A jay-sized, fast-flying hawk with a long, narrow, square-tipped tail and short rounded wings. Adult are slate-gray above, pale below, with fine rust-colored barring on chest. Sharp-shinned is generally smaller than Cooper's hawk.

Communities: Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine forests. The species uses dense stands in close proximity to open areas. North-facing slopes with prey plucking perches are a critical habitat requirement. Although sharp-shinned hawks apparently demonstrate significant site fidelity in the short-term, pairs do not occupy a particular site for more than two consecutive years.

Range: In California, the sharp-shinned hawk is a fairly common migrant and winter resident throughout California, except in areas with deep snow. Breeding distribution of the species is poorly documented.

Seasonality: In southern California the species is a winter resident, and migrates through the area in the fall and spring.

Food Sources: The species feeds almost entirely on small birds that are typically no larger than jay-size. Although rare, it may prey upon small mammals, reptiles, amphibians, and insects.

Threats: Suburban development has led to the loss of historic and potential nesting habitat. Sharp-shinned hawks are still being shot in Latin American wintering grounds. Timber harvesting and exposure to pesticides also negatively affects the species.

General Conservation Measures: Preservation of breeding habitats and protection from hunting in other countries.

Information Sources:

Scott, Dr. Thomas. 2001. Sharp-shinned Hawk. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregions.ucr.edu>

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

Cooper's Hawk (nesting)

Accipiter cooperii

Presence Onsite: Occurs as a Transient. The species was observed foraging over the site during surveys; however, the lack of dense woodland habitat makes it unlikely that the species would nest onsite.

Onsite Conservation Measures: None required. There are no reasonable conservation measures to reduce the loss of potential foraging area.

Federal Status: None

State Status: None

CDFG: Watch List

NatureServe Rank: G5/S3

Other: IUCN: LC

Description: Medium sized hawk from 14 to 20 inches in length. Adult Cooper's hawks have a dark blackish crown that is noticeably set off from a lighter nape. The wings are short and rounded. The back is blue gray, and the long tail is crossed by several dark bands and has a distinct white band at the tip. The tip of the tail is rounded, not squared. Immature Cooper's hawk are brown above and whitish below with fine streaks on the breast.

Habitats: The Cooper's hawk breeds primarily in riparian areas and oak woodlands with dense stands that have moderate crown-depths. For foraging it frequents landscapes where wooded areas occur in patches and groves and often uses patchy woodlands and edges with snags for perching. Dense stands with moderate crown-depths are usually used for nesting. Occasionally found in residential settings in mature ornamental vegetation.

Range: In California, the Cooper's hawk is a breeding resident throughout most of the wooded portion of the state. It breeds in the southern Sierra Nevada foothills, New York Mountains, Owens Valley, and other local areas in southern California. Though rare, it may be found throughout Los Angeles County in appropriate habitat. The species

has begun to breed in suburban areas with mature trees.

Seasonality: Although the Cooper's hawk breeds in southern California and has a year-round resident population, it also occurs in the region as a migrant and as a winter resident.

Food Sources: In general the species primarily preys upon other birds with some taking of fish, small mammals, reptiles, and amphibians.

Threats: Habitat loss in lowland riparian areas is probably the most important current reason for the declining population. Direct or indirect human disturbance at nest sites also has a negative effect on the success of breeding. In the past the use of environmentally persistent pesticides reduced egg viability and nesting success.

General Conservation Measures: Protect the necessary riparian and other woodland habitat while also limiting the taking of nestlings for the use in falconry. Also maintain ban on persistent pesticides.

Information Sources:

California's Plants and Animals. 2008. Cooper's Hawk. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/hcpb/species/ssc/ssc.shtml>.

Cooper's Hawk. Enature.com. 2008. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>.

Polite, C. 2004. B116-Cooper's Hawk. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. J Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/whdab/html/B116.html>.

Golden Eagle

Aquila chrysaetos

Presence Onsite: Possibly occurs as a Transient. The golden eagle may forage over the site as a transient, but it is unlikely to nest onsite due to a lack of appropriate habitat.

Onsite Conservation Measures: None required. There are no reasonable conservation measures to reduce the loss of potential foraging area.

Federal Status: None

State Status: None

CDFG: Fully Protected/Species of Special Concern

NatureServe Rank: G5/S3

Other: BLM: S; CDF: S; IUCN: LC; USFWS: BCC

Description: Large (30-41 inches), all-dark eagle with a pale golden nape. The bill is smaller and darker than that of bald eagle. In young birds, tail white at base, black at tip; white patches on undersides of wings.

Habitats: Grasslands, Brushlands, Deserts, Oak Savannas, Open Coniferous Forests, and Montane Valleys. Uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops. Nesting is primarily restricted to rugged, mountainous country.

Range: The golden eagle breeds from Alaska east across northern Canada south to Mexico, Canadian prairie provinces, and Labrador. Winters in southern part of breeding range and in much of the United States, except the Southeast. Also found in Eurasia. Found in appropriate habitat throughout its range.

Seasonality: Primarily a year-round resident of southern California with elevation changes depending upon the season. Some fall and spring migrants, as well as winter residents have been observed.

Food Sources: The golden eagle eats primarily rabbits and rodents, but it may

prey upon other small mammals, birds, reptiles, and occasionally carrion.

Threats: Loss of suitable hunting habitat due to development, human disturbance of nest areas, poaching, and electrocution from high-tension wires.

General Conservation Measures: The species requires a large expanse for foraging and suitable nest sites in the form of cliffs or large trees.

Information Sources:

Golden Eagle. Enature.com 2008. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>
Scott, Dr. Thomas. 2001. Golden Eagle. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Western yellow-billed Cuckoo

Coccyzus americanus occidentalis

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: Candidate

State Status: Endangered

CDFG: None

NatureServe: G5T3Q/S1

Other: IUCN: LC; USFS: S; USFWS: BCC

Description: A jay-sized bird (10.5 – 12.5 inches) with clean white underparts and rufous-colored primaries. Long tail has contrasting dark and white spots. Bill is mostly yellow with some black on top

Habitats: Riparian Willow Woodland.

Range: Within California: upper Sacramento Valley portion of the Sacramento River, the Feather River in Sutter County, the south fork of the Kern River in Kern County, and along the Santa Ana, Amargosa, and lower Colorado Rivers. The rare local populations in southern California typically occur in the Prado Basin, Santa Ana River areas, on Camp Pendleton, and in the Tijuana River system.

Seasonality: Rare summer resident.

Food Sources: Feeds primarily on large insect such as grasshoppers, cicadas, and caterpillars. May also eat small frogs, arboreal lizards, eggs, and young birds.

Threats: Destruction and alteration of necessary habitat for breeding.

General Conservation Measures:

Restoration of riparian habitats and elimination of pesticide spraying in orchards adjacent to riparian areas can protect known populations.

Information Sources:

- California's Plants and Animals. 2003. Western yellow-billed Cuckoo. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://ecos.fws.gov/ecos>
- Enature. 2008. Western yellow-billed Cuckoo. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>
- Gaines, D. B259- Western yellow-billed Cuckoo. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>
- Scott, Dr. Thomas. 2001. Western yellow-billed Cuckoo. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu/>
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Burrowing Owl

Athene cunicularia hypugaea

Presence Onsite: No. The species was not observed during the surveys of the project site and the nesting habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: Species of Concern

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G4/S2

Other: BLM: S; IUCN: LC; USFWS: BCC

Description: Robin-sized (9 inches) terrestrial owl with a short tail and long legs. When close to its burrow the species tends to run for safety when startled instead of flying. The eyes are bright yellow and are set in a brown face that is bordered in white. Nests in long underground burrows lined with grasses, roots, and dung. Burrows tend to be abandoned ground squirrel burrows, but may be from other species as well. The owl will modify an adopted burrow.

Habitats: Shortgrass Prairies, Grasslands, Lowland Scrub, Agricultural Lands, Coastal Dunes, Desert Floors, and other open areas.

Range: In California, burrowing owls are restricted to low lying areas including the Central Valley extending from Redding south to the Grapevine, east through the Mojave Desert and west to San Jose, the San Francisco Bay area, the outer coastal foothills area which extend from Monterey south to San Diego, and the Sonoran desert. The largest population is found in agricultural areas in the vicinity of El Centro. Found in appropriate habitat throughout southern California.

Seasonality: Year-round resident ^{and/or} migratory.

Food Sources: Diet includes invertebrates and small vertebrates that are hunted by using short flights, running along the ground, hovering, or by using an elevated perch for spotting prey.

Threats: The loss and alteration of habitat due to agricultural practices or urbanization, predation by native and nonnative species, collisions with vehicles, and pesticides/poisoning of ground squirrels.

General Conservation Measures: The necessary habitat of the burrowing owl and their primary food sources need to be protected. Nesting areas need to be protected from human disturbances during breeding season.

Information Sources:

Enature.com 2008. Burrowing Owl. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>
Scott, Dr. Thomas. Burrowing Owl. 2001. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu/>

Allen's Hummingbird (nesting)

Selasphorus sasin

Presence Onsite: Occurs. The species was observed on the project site during the surveys and habitat is available onsite for nesting.

Onsite Conservation Measures: See Mitigation Measure 7a and 7b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: None

NatureServe Rank: G5/SNR

Other: Audubon: Watch List; IUCN: LC; USBC: WL

Description: Male has mostly rufous underparts except for the upper breast, which forms a white bib. Tail feathers are reddish with black tips and the gorget is a bright copper-red. The upperparts are mostly green with the exception of red on

the topside of the tail feathers and along the sides of the head. A metallic whine is emitted from the male's wings when in flight.

Habitats: The restricted range (see below) Allen's Hummingbird subspecies (*S. s. sedentarius*) inhabits chaparral and riparian woodlands below 1000 feet in elevation. The more widely distributed subspecies (*S. s. sasin*) inhabits mixed evergreen forests, riparian woodlands, eucalyptus and cypress groves, oak woodlands, and coastal scrub areas in breeding season. Males maintain territories that overlook open coastal scrub or riparian shrubs where they perch in conspicuous places. Females choose nest sites in areas where there is more tree cover.

Range: Allen's have one of the smallest breeding ranges of all U.S. hummingbirds. They breed in a narrow strip along the Pacific coast from southwest Oregon to southern California. Within this range, two subspecies have been identified that have different migratory patterns. *Selasphorus sasin sasin* breeds across this range and migrates to central Mexico in the states of Mexico, Morelos, and Puebla. *S. s. sedentarius* is a year-round resident of 6 of the Channel Islands off the southern coast of California and also on the mainland in the Los Angeles vicinity, spreading a short distance in all directions.

Seasonality: A year-round resident and a transient during migration.

Food Sources: The species diet consists of floral nectar and small insects taken from the air or from vegetation.

Threats: The restricted breeding and wintering range makes the species more susceptible to natural disasters, diseases, or land use changes that could wipe out significant portions of the population, especially the residents on the Channel Islands.

General Conservation Measures:

Preservation of native habitats and the vegetation that composes it is most important.

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Information Sources:

Mitchell, D. E. 2000. Allen's Hummingbird (*Selasphorus sasin*). The Birds of North America, No. 501 (A. Poole and F. Gill, eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.

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

The 2002 Audubon Watchlist. 2002. Allen's hummingbird. National Audubon Society, Inc. Accessed on Dec. 20, 2008 from <http://audubon2.org/webapp/watchlist/viewWatchlist.jsp>

Least Bell's Vireo

Vireo bellii pusillus

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: Endangered

State Status: Endangered

CDFG: None

NatureServe Rank: G5T2/S2

Other: ABC: GL; Audubon: WL; IUCN: NT; USBC: WL; USFWS: BBC

Description: A small bird (4.75 – 5 inches) that is a dull olive-gray above and whitish below. Eye ring is a faint white and wing bars are a less visible white. Prefers dense covered riparian habitat.

Habitats: Southern Willow Scrub, Cottonwood Forest, Mule Fat scrub, Sycamore Alluvial Woodland, Coast Live Oak Riparian Forest, Arroyo Willow Riparian Forest

Range: Restricted to southern California south of the Tehachapi Mountains and north of northwestern Baja California. Found locally in suitable habitat throughout its range

Seasonality: Rare local summer resident.

Food sources: Forages most of the year in stands of willows and other riparian vegetation. Later in the breeding season it may expand its territory into Chaparral and Oak Woodlands

Threats: The decline of the species is related to the widespread removal suitable habitat in southern California. In addition, the brown-headed cowbird has been a major contributor to this decline due to brood parasitism.

General Conservation Measures: Riparian habitat conservation and cowbird trapping are the most important conservation measures for this species. The jurisdictional waters permitting process administered by the CDFG and USACE usually drive both of these measures.

Information Sources:

California's Plants and Animals. 2003. Least Bell's Vireo. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Enature. 2008. Least Bell's Vireo. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com/>

Gaines, D. 2003. B413- Least Bell's Vireo. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Scott, Dr. Thomas. Least Bell's Vireo. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. 2001. University of California-Riverside. <http://ecoregion.ucr.edu>

California Horned Lark

Eremophila alpestris actia

Presence Onsite: No.

Onsite Conservation Measures: The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite.

Federal Status: None

State Status: None

CDFG: WL

NatureServe Rank: G5T3Q/S3

Other: IUCN: LC

Descriptions: The species is a small (6-8 inches) songbird with a pale brown back, black chest patch, black face patch, yellow or pale throat, and small "horns" on top of head.

Habitats: The horned lark is a common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. In the Midwest, the species has been characterized as the most abundant species in row-crop fields. Range-wide, California horned larks breed in level or gently sloping shortgrass prairie, montane meadows, bald hills, opens coastal plains, fallow grain fields, and alkali flats (Grinnell and Miller 1944). Within southern California, California horned larks breed on the ground primarily in open fields, grasslands, and rangelands. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover.

Range: The species breeds and resides in the coastal region of California from Sonoma County southeast to the United States/Mexican border, including most of the San Joaquin Valley, and eastward to the foothills of the Sierra Nevada Mountains.

Food Sources: The species feeds primarily on grains and other seeds and shift to mostly insects in the summer months. Individuals forage on the ground in either bare areas or in agricultural fields with short vegetation. It mostly eats insects, snails, and spiders during breeding season; it adds grass and

forb seeds and other plant matter to the diet at other seasons.

Threats: The habitat of the species is easily converted to other landscapes and human uses. Pesticides, specifically Carbofuran and Fenthion, have been shown to poison and kill horned larks. A total of 44% of nest failures have been attributed to mowing in airport grasslands occupied by horned larks.

General Conservation Measures: Because of the species use of agricultural fields, the effects of pesticides have been identified as a necessary component of the management of this species. Rangeland alteration activities (removal of shrubs and planting of wheatgrass) in southern Oregon resulted in increased numbers of horned larks after an initial one-year time lag response.

Information Sources:

Beason, R. C. 1995. Horned Lark (*Eremophila alpestris*). In The Birds of North America, No. 195 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists Union, Washington, D.C.

NatureServe. 2008. NatureServe Explorer: An online encyclopedia of life [web application]. Version 5.0. NatureServe, Arlington, Virginia. Accessed on Dec. 20, 2008 from <http://www.natureserve.org/explorer>.

Scott, Dr. Thomas. Least Bell's Vireo. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. 2001. University of California-Riverside. <http://ecoregion.ucr.edu>

Bank Swallow

Riparia riparia

Presence Onsite: No. The species was not observed during the surveys of the project site and the habitat with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

Federal Status: None
State Status: Threatened
CDFG: None
NatureServe Rank: G5/S2S3
Other: IUCN: LC

Descriptions: Small slender songbird; white underneath and brown on top; dark band across chest, extending down middle of chest; small bill; long wings. Size: 12-14 cm (5-6 in); wingspan: 25-29 cm (10-11 in); weight: 10-19 g (0.35-0.67 ounces)

Habitats: Open and partly open situations, frequently near flowing water. Nests in steep sand, dirt, or gravel banks, in a burrow dug near the top of the bank, along the edge of inland water or along the coast, or in gravel pits, road embankments, etc. Both sexes construct the nest burrow. Usually digs a new burrow each year, but sometimes uses old bank swallow burrows or abandoned cavities of the belted kingfisher. Tends to return to same nesting area in successive years, though may move several kilometers away, especially if nesting was unsuccessful the previous year; yearlings often return to the natal area or nearby

Range: Breeding: in North America from western and central Alaska east to Newfoundland, south to central California, western Nevada, Utah, northern New Mexico, Kansas, northeastern Oklahoma, Tennessee, northern Alabama, central West Virginia, eastern Virginia, casually to south-central South Carolina; non-breeding: in the Americas mainly from eastern Panama southward, east of the Andes, to northern Argentina, Paraguay, and northern Chile, casually north to southern California.

Food Sources: Feeds primarily on flying insects (e.g., beetles, mosquitoes, winged ants, flies, moths). Catches insects in the air over fields, wetlands, water, etc. If necessary, may forage up to several kilometers from nesting area, but usually closer.

Threats: Decline in California has been due to human disturbance and channelization and stream bank modifications for flood control and bank stabilization. Riprapping

of natural stream banks is the most serious threat to long-term survival in California
General Conservation Measures: In California, improvements of natural habitat and construction of artificial banks have been undertaken to mitigate for habitat loss to riprapping. However, it is doubtful that these techniques will provide a long-term solution. Quarry managers should be encouraged to create seasonal sand piles from April until July.

Information Sources:

NatureServe. 2008. NatureServe Explorer: An online encyclopedia of life [web application]. Version 5.0. NatureServe, Arlington, Virginia. Accessed on Dec. 20, 2008 from <http://www.natureserve.org/explorer>.

Coastal California Gnatcatcher

Polioptila californica californica

Presence Onsite: Possible. Although the species was not observed during the surveys of the project site, coastal sage scrub dominated by California sagebrush does occur onsite that could be utilized by the species. Four (4) occurrences of the species have been recorded in the CNDDDB within 10 miles of the project site, with the nearest occurrences located approximately 1.5 miles to the east. Additionally, the USFWS has designated several units of critical habitat for the species that are within 2.5 miles of the site.

Onsite Conservation Measures: See Mitigation Measure 6a and 6b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: Threatened
State Status: None
CDFG: Species of Special Concern
NatureServe Rank: G3T2/S2
Other: ABC: GL; Audubon: WL; IUCN: LC; USBC: WL;

Description: The species is a small, slender, gray, songbird having a long, black tail with white tips and fine white edging. A black cap is present in the plumage of breeding males and non-breeding males have a black line over the eye. Males are mostly gray with darker upperparts. Females have more of a brown tone on back, flanks, and belly. The species makes a kitten-like mewing that distinguishes it from the black-tailed gnatcatcher (*Polioptila melanura*). The species can also be distinguished from the back-tailed by its darker underparts and less white on its tail. The other gnatcatchers within the range of the California gnatcatcher, blue-gray (*Polioptila caerulea*) and black-capped (*Polioptila nigriceps*), are larger and have more white on the outer retrices.

Habitats: Venturan coastal sage scrub, Diegan Coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. Generally prefers open sage scrub with California sagebrush (*Artemisia californica*) as a dominant or co-dominant species. Prefers nesting in areas with less than 40 percent slope gradient. Gullies and drainages, when available within its territory, are preferred as nest sites. The species occurs from sea level to 1,600 feet, with most core populations in coastal counties occurring below 1,000 feet.

Range: The species occurs north of 30°N in northwest Baja California, Mexico to Ventura County. It is limited to lower elevations (<1,600 feet) south and west of Transverse and Peninsular Ranges. Highest densities of the species occur in coastal areas of Orange and San Diego counties. Lower densities occur in western Riverside and southwestern San Bernardino counties and inland San Diego County. Small, now disjunct populations documented for Ventura and Los Angeles counties.

Seasonality: The species does not migrate and is a year-round resident in southwestern California.

Food Sources: The diet consists primarily of leaf and plant hoppers and spiders. Also

consumed are true bugs, wasps, bees, and ants. Most of its water is obtained through its diet.

Threats: Disturbances that reduce shrub cover, such as frequent fire, mechanical disruption, livestock grazing, off-highway vehicle use, and military training activities appear to reduce habitat suitability for the species.

General Conservation Measures: Fire frequency and the invasion of exotic vegetation, especially grasses and annual forbs, interact to pose potentially serious threats to suitable gnatcatcher habitat. In much of coastal southern California, where these exotic plants are well-established, and where the irreversible conversion of shrublands to grasslands is likely, fire frequency and burn size should be kept low. Where possible, flammable exotics should be removed or reduced in shrubland habitats.

Information Sources:

- Atwood, J. L. and D. R. Bontrager. 2001. California Gnatcatcher (*Polioptila californica*). In *The Birds of North America*, No. 574 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and the American Ornithologists' Union, Washington, D.C.
- Salata, Larry. 1993. Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Coastal California Gnatcatcher. Division of Endangered Species. U.S. Fish and Wildlife Service. Accessed on Dec. 20, 2008 from <http://endangered.fws.gov/r/fr93496.html>

- Mock, P. 2004. California Gnatcatcher (*Poliophtila californica*). The Coastal Scrub and Chaparral Bird Conservation Plan: a strategy for protecting and managing coastal scrub and chaparral habitats and associated birds in California. California Partners in Flight. Accessed on Dec. 20, 2008 from <http://www.prbo.org/calpif/htmldocs/scrub.html>
- Scott, Dr. Thomas. 2001. Coastal California Gnatcatcher. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu/>
- The 2002 Audubon Watchlist. 2002. California Gnatcatcher. National Audubon Society, Inc. Accessed on Dec. 20, 2008 from <http://audubon2.org/webapp/watchlist/viewWatchlist.jsp>

Southern California Rufous-crowned Sparrow

Aimophila ruficeps canescens

Presence Onsite: Occurs. The species was observed on the project site during the surveys and habitat is available onsite for nesting.

Onsite Conservation Measures: See Mitigation Measure 7a and 7b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: Watch List

NatureServe Rank: G5T2T4/S2S3

Other: IUCN: LC

Description: A small bird (5-6 inches) with a rufous colored crown and eye stripe on a gray head. Whisker marks on cheeks are

obvious and the gray mantle is streaked with rufous stripes. Underparts are primarily unstreaked gray.

Habitats: Coastal sage scrub and chaparral.

Range: Limited to a narrow belt of semiarid coastal sage scrub and sparse chaparral from Santa Barbara south to the northwestern corner of Baja California.

Seasonality: Year-round resident of southern California.

Food Sources: Gleans from the ground and low foliage of shrubs, and occasionally from the leaves of oaks. During the breeding season insects dominate the diet, while seeds, grasses, and forb shoots are consumed the remainder of the year.

Threats: The loss of coastal sage scrub for agriculture and urban development has reduced the available habitat.

General Conservation Measures: Southern California rufous-crowned sparrows would benefit from steep slope preservation and maintenance, by the use of prescribed burns, of open edge conditions of coastal sage scrub that perpetuate herbaceous elements for foraging.

Information Sources:

Enature. 2008. Southern California Rufous-crowned Sparrow. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>

Scott, Dr. Thomas. 2001. Southern California Rufous-crowned Sparrow. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>

Lark Sparrow (nesting)

Chondestes grammacus

Presence Onsite: Occurs. The species was observed on the project site during the surveys and habitat is available onsite for nesting.

Onsite Conservation Measures: See Mitigation Measure 7a and 7b in the Environmental Impacts and Mitigation Measures section of the Biological Resources Technical Report.

Federal Status: None

State Status: None

CDFG: None

NatureServe Rank: G5/SNR

Other: None

Description: The species has a chestnut ear patches, with a chestnut crown stripe divided by central white stripe. Facial marks include black malar stripes, with white stripe above, buffy and white stripe above eye, Black line through eye, and a white ring around the eye. Its flanks are buffy, with buffy wingbars and black stripes on back.

The sexes alike, but the males are slightly larger. Juveniles have brown streaks on chest and their face patterns are more obscure with browns instead of chestnut and black, and dirty white stripes. First winter birds have adult pattern, but colors are duller on face.

Habitats: The species breeds in open habitats, where grass adjoins scattered trees and shrubs, especially in poor or sandy soils. Park-like woodlands, mesquite grasslands, fallow fields with brushy edges, sagebrush.

Range: Breeds from southern central Canada southward to northern Mexico, westward to California coast and eastward to Mississippi River and western Indiana. Irregular breeder eastward to Ohio and North Carolina. Winters primarily in California and from Texas southward through Mexico. Scattered individuals found throughout United States and on East Coast.

Seasonality: Year-round and wintering resident of southern California.

Food Sources: Seeds and insects

Threats: Breeding bird survey data show a nationwide decrease in populations, especially in the eastern portion of its range.

General Conservation Measures:

Information Sources:

Enature. 2008. Lark Sparrow. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>

Martin, J. W., and J. R. Parrish. 2000. Lark Sparrow (*Chondestes grammacus*). In The Birds of North America, No. 488 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

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

Hoary Bat

Lasiurus cinereus

Presence Onsite: Possibly occurs as a Transient. The species was not observed roosting onsite and the typical roosting habitat does not occur, so it is unlikely. It is possible for the species to forage on the site due to the occurrence of roosting habitat in the vicinity of the project site.

Onsite Conservation Measures: None required. There is no reasonable measure to offset the loss of a small amount of potential foraging habitat other than the proposed preservation of open space on the project site.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe: G5/S4?

Other: IUCN: VU; BWG: H

Description: A large bat; ears short, rounded, and with black rims; dorsal surface of membrane between hind legs and feet densely furred; upperparts grayish or brownish, heavily frosted with white; membranes brownish black except along forearm where they are yellowish. Not easily confused with any other North American bat. External measurements average: total length, 136 mm; tail, 57 mm; foot, 12 mm; ear, 18 mm; forearm, 52 mm. Weight 20-35 g.

Communities: This bat is migratory and moves northward in spring and southward in winter. Like its relative the red bat, with which it frequently associates, the hoary bat is more or less solitary and frequents wooded areas where it roosts in the open by hanging from a branch or twig. It is a strong flier, and in association with other bats it is readily recognized by its large size and swift, erratic flight. This bat usually emerges rather late in the evening, but during migration it frequently is observed in daylight hours.

Range: The most widespread of all American bats, the hoary bat occurs widely across most of North America from north-central Canada, south into southern Mexico. May be found at any location in California, although distribution patchy in southeastern deserts.

Food sources: The chief food is moths, although they are known to also eat beetles, flies, grasshoppers, termites, dragonflies, and wasps.

Threats: The loss of habitat due to urbanization. Also the use of insecticides has reduced their food sources.

General Conservation Measures: None known at this time.

Information Sources:

Harris, J. 2003. M034 – Hoary Bat. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

The Mammals of Texas- Online Edition. 2008. Hoary Bat. Texas Tech University. Accessed on Dec. 20, 2008 from <http://www.nsr1.ttu.edu/tmot1/Default.htm>.

Western Small-footed Myotis

Myotis ciliolabrum

Presence Onsite: Possibly occurs as a Transient. The species was not observed roosting in the abandoned structure onsite. It is possible for the species to forage on the site due to the occurrence of roosting habitat in the vicinity of the project site.

Onsite Conservation Measures: None required. There is no reasonable measure to offset the loss of a small amount of potential foraging habitat other than the proposed preservation of open space on the project site.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe: G5/S2S3

Other: BLM: S; IUCN: VU; WBWG: H

Description: A small *Myotis* with small feet, short ears, and relatively long tail; ratio of tail to head and body about 95; ratio of foot to tibia 40-45; upperparts light buff to warm buff, with slight tricolor effect; individual hairs blackish basally, succeeded by pale intermediate section and flaxen tips; underparts pale buff to nearly white; muzzle, chin, ears, and tragus blackish; sides of face from muzzle to ears blackish brown. Most easily confused with the small-footed *M. californicus*. Dental formula as in *M. californicus*. External measurements average: total length, 79 mm; tail, 37 mm; foot, 7 mm; ear, 13 mm; forearm, 33 mm. Weight, 4-5 g.

Communities: In the western United States, these bats are inhabitants of the deserts, semi-deserts, and desert mountains. Their daytime roosts may be in crevices and cracks in canyon walls, caves, mine tunnels,

behind loose tree bark, or in abandoned houses. These bats hibernate in suitable caves or mine tunnels within the range occupied in summer.

Range: The species is found from southwestern Canada, south to Mexico and distributed over the United States except along the north pacific coast, the south eastern states, and the center strip of the U.S. the species is found throughout its range in appropriate habitat.

Food sources: Western small-footed myotis appear to have similar feeding and foraging habits as the California myotis, but their specific food habits have not been recorded. They may feed over water and close to the ground over desert chaparral vegetation.

Threats: The loss of habitat due to urbanization. Also the use of insecticides has reduced their food sources.

General Conservation Measures: None known at this time.

Information Sources:

The Mammals of Texas- Online Edition. 2008.
Western small-footed myotis. Texas
Tech University. J Accessed on Dec. 20,
2008 from
<http://www.nsrl.ttu.edu/tmot1/Default.htm>.

Pallid Bat

Antrozous pallidus

Presence Onsite: Possibly occurs as a Transient. The species was not observed roosting in the abandoned structure onsite. It is possible for the species to forage on the site due to the occurrence of roosting habitat in the vicinity of the project site.

Onsite Conservation Measures: None required. There is no reasonable measure to offset the loss of a small amount of potential foraging habitat other than the proposed preservation of open space on the project site.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe: G5/S3

Other: BLM: S; IUCN: LC; USFS: S;
WBWG: H

Description: A rather large, pale, yellowish-brown bat. Ears about 2.5 cm long, broad, naked, and crossed by nine or 11 transverse lines; bases of hairs light (nearly white), tips dusky; large light spot between shoulders; underparts paler and lacking dusky-tipped hairs; membranes nearly naked and brownish; nostrils surrounded by a glandular ridge producing a blunt snout; feet relatively large and strong. External measurements average: total length, 113 mm; tail, 46 mm; foot, 12 mm; ear, 28 mm; forearm, 48 mm. Weight, 12-17 g.

Communities: A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Pallid bats inhabit rocky, outcrop areas where they commonly roost in rock crevices, caves, and mine tunnels but they also roost in the attics of houses, under the eaves of barns, behind signs, in hollow trees, and in abandoned adobe buildings.

Range: Throughout the arid areas of the United States in appropriate habitat. The pallid bat is a locally common species of low elevations in California. It occurs throughout California except for the high Sierra Nevada from Shasta to Kern cos., and the northwestern corner of the state from Del Norte and western Siskiyou cos. to northern Mendocino Co. A yearlong resident in most of the range.

Food sources: They have been observed flying, apparently at random, over an area at levels of 15-90 cm above the ground. When prey (Jerusalem crickets, scorpions, and other flightless arthropods) is located, presumably by sight, the bat abruptly drops to the ground, searches briefly, grabs its victim in its mouth, and takes off. Pallid bats also eat moths, froghoppers and leafhoppers, June beetles, and grasshoppers.

Threats: The loss of habitat due to urbanization. The use of insecticides has also reduced their food sources.

General Conservation Measures: None known at this time.

Information Sources:

Harris, J. M038– Pallid Bat. 2003. California Wildlife Habitat Relationship System. California Department of Fish and Game-California Interagency Wildlife Task Group. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

The Mammals of Texas- Online Edition. 2008. Pallid Bat. Texas Tech University. Accessed on Dec. 20, 2008 from <http://www.nsr1.ttu.edu/tmot1/Default.htm>.

Western Mastiff Bat

Eumops perotis californicus

Presence Onsite: Possibly occurs as a Transient. The species was not observed roosting in the abandoned structure onsite. Other appropriate roosting habitat does not occur onsite, so it is unlikely the species roosts there. It is possible for the species to forage on the site due to the occurrence of roosting habitat in the vicinity of the project site.

Onsite Conservation Measures: None required. There is no reasonable measure to offset the loss of a small amount of potential foraging habitat other than the proposed preservation of open space on the project site.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe: G5T4/S3?

Other: BLM: S; IUCN: VU; WBWG: H

Description: The largest bat in North America has a thinly, dark brown furred body. Its large ears are connected at their base and project over the forehead. Prefers

to roost in caves but will use crevices or buildings when no other roost sites are available.

Communities: The species roosts in crevices of rocky cliff and canyon areas. It also roosts in buildings.

Range: Southern California, extreme southern Nevada, southern Arizona, extreme southwestern New Mexico, and the Big Bend area of Texas. Found in coastal lowlands along the California coast.

Food sources: Moths comprise 80 percent of its diet, but it also eats ground-dwelling crickets and grasshoppers.

Threats: The extensive loss of habitat due to urbanization of coastal basins, marsh drainage, and cultivation of major foraging areas. Also the use of insecticides has reduced their food sources.

General Conservation Measures: None known at this time.

Information Sources:

California's Plants and Animals. 2003. Western Mastiff Bat. California Department of Fish and Game-Habitat Conservation Planning Branch. Accessed on Dec. 20, 2008 from <http://www.dfg.ca.gov/about/wildlife.html>

Enature. 2008. Western Mastiff Bat. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>

San Diego Desert Woodrat

Neotoma lepida intermedia

Presence Onsite: No. The species and its associated diagnostic sign (middens) were not observed during the surveys of the project site and the habitat elements (rocky outcrops or cactus patches) with which the species is typically associated with does not occur onsite.

Onsite Conservation Measures: None required.

APPENDIX 2: SENSITIVE SPECIES EVALUATIONS

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe Rank: G5T3?/S3?

Other: IUCN: DD

Description: Woodrats are pale buff, gray or reddish brown, usually with white undersides and feet. They have relatively large ears and, normally, hairy tails. They range in length from 8 to 20 inches, including their 3- to 9-inch tail.

Habitats: Riversidean sage scrub, coastal sage scrub, and chaparral. The species is typically found in areas with rock outcrops, boulder fields, or areas with cactus patches where the species can take refuge.

Range: The San Diego desert woodrat occurs in coastal California from San Luis Obispo south through the Transverse and Peninsular Ranges into Baja California. Historic locations of the species on and adjacent to National Forest System lands have been recorded from San Luis Obispo near Los Padres National Forest, San Fernando near Angeles National Forest, Redlands and the San Bernardino Mountains on and near the San Bernardino National Forest, and Julian near the Cleveland National Forest. Found throughout its range in suitable habitat.

Food sources: Desert woodrats primarily are herbivorous, and their diet may include leaves, seeds, berries, parts of flowers, and yucca shoots. Woodrat foraging behavior entails venturing from a sheltered area or den to a plant, usually within 3 meters of the den, clipping the vegetation, and then returning to the sheltered area or den to consume the food morsel.

Threats: General loss of coastal sage scrub habitat to agricultural and urban development. Also, disking of vacant land for farming and weed abatement and cattle and sheep grazing may destroy or degrade woodrat habitat. A potential long-term threat to the species is isolation and fragmentation of habitat.

General Conservation Measures:

Preservation of suitable habitat and corridors between existing populations to promote genetic exchange.

Information Sources:

Enature. 2008. San Diego Desert Woodrat. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com/>

Scott, Dr. Thomas. 2001. San Diego Desert Woodrat. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu/>

American Badger

Taxidea taxus

Presence Onsite: No. The species and its associated diagnostic sign (burrows and dugout rodent burrows) were not observed during the surveys of the project site. Areas occupied by ground squirrels were thoroughly examined.

Onsite Conservation Measures: None required.

Federal Status: None

State Status: None

CDFG: Species of Special Concern

NatureServe: G5/S4

Other: IUCN: LC

Description: A rather large, robust, short-legged "weasel"; body broad and squat; tail short, thick and bushy. Pelage is long and shaggy, especially on back and sides and the upperparts are grizzled grayish-yellow in color. A distinct white stripe runs from near the tip of nose back over top of head to shoulder area, also a white crescent on each side of face just back of eye and another at anterior base of ear. Badger sign is very diagnostic, consisting of burrows and holes that are generally horizontally elliptic. The earth thrown out of the excavation frequently consists of large clods. The claw

marks left by digging are frequently horizontal and found on the sides of the hole.

Communities: The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated ground. Grasslands, savannas, and mountain meadows near timberline are preferred. Found locally in lower elevation grasslands and coastal sage with inhabited open ground composed of fine sands.

Range: American Badgers occur from northern Alberta southward to central Mexico. They range from the Pacific Coast eastward through Ohio. Locally the species is, or was, historically found in the Los Angeles Basin, from approximately Burbank and San Fernando on the northwest to San Bernardino on the northeast, and Cabazon, Hemet, and Aguanga on the east and southeast. Their geographic limits on the southwest are not clear, but probably lie somewhere near the Hollywood Hills. Little is known on the current number of populations, but remaining numbers are probably isolated due to urbanization of historic habitat. Badger populations have declined drastically in California within the last century and the species has been extirpated from many areas in southern California.

Food sources: The chief food of the badger is ground squirrels, but it also preys upon other burrowing rodents depending on availability. They also eat lizards, birds, eggs, insects, and occasionally carrion.

Threats: Deliberate killing probably has been a major factor in the decline of badger populations, as well as habitat loss due to cultivation practices and urbanization. Rodent and predator poisoning pose double threats through direct and secondary poisoning of Badgers and elimination of the food upon which badgers are dependent.

General Conservation Measures: The preservation of large open areas would protect nesting and foraging habitats of this species. Also corridors need to be created or maintained between populations that are, or at risk of being, isolated.

Information Sources:

- Enature. 2008. American Badger. National Wildlife Federation. Accessed on Dec. 20, 2008 from <http://www.enature.com>
- Scott, Dr. Thomas. 2001. Los Angeles Pocket Mouse. Understanding the Plants and Animals of Riverside County Multiple Species Habitat Conservation Plan. University of California-Riverside. Accessed on Dec. 20, 2008 from <http://ecoregion.ucr.edu>