CANYON VIEW ESTATES (TENTATIVE TRACT MAP 74650)

Biological Constraints Analysis

Prepared for
Jemstreet Properties
1435 Reynolds Court
Thousand Oaks, California 91362
Contact: Mr. Rick Coop

October 2017

CANYON VIEW ESTATES (TENTATIVE TRACT MAP 74650)

Biological Constraints Analysis

Prepared for
Jemstreet Properties
1435 Reynolds Court
Thousand Oaks, California 91362
Contact: Mr. Rick Coop

October 2017

2121 Alton Parkway
Suite 100
Irvine, CA 92606
949.753.7001
www.esassoc.com

Irvine
Los Angeles
Oakland
Orlando
Palm Springs
Pasadena
Petaluma
Portland
Sacramento
San Diego
San Francisco
Santa Monica
Seattle
Tampa
Woodland Hills

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

Biological Constraints Assessment

Canyon View Estates
Stevenson Ranch Community, Unincorporated Los Angeles County, California
County Project R2016-002179
Vesting Tentative Tract Map TR074650
Conditional Use Permit 2016004409
Environmental Assessment 2016004410

Project Location:

APNs 2826-020-012, 2826-020-013 and 2826-020-061 (Unincorporated Los Angeles County)
U.S. Geological Survey (USGS) 7.5-minute Newhall, Oat Mountain topographic quadrangle maps
Section (S) 5, Township (T) 3 North (N), Range (R) 16 West (W); S5, T3N, R16W

Prepared For:

Jemstreet Properties
1435 Reynolds Court
Thousand Oaks, California 91362
Contact:
Mr. Rick Coop

Prepared By:

ESA
2121 Alton Parkway, Suite 100
Irvine, California 92606
Contact:
Dr. Daryl Koutnik, Principal Biological and Environmental Compliance

Report Date:
October 2017

TABLE OF CONTENTS

Canyon View Estates Biological Constraints Analysis

Page

Appendices

List of Figures

List of Tables

CHAPTER 1
Introduction

1.1 Background and Purpose

This report presents the findings of this Biological Constraints Analysis (BCA) conducted by **ESA** for the approximately 94-acre proposed residential development project (project site) located within the Stevenson Ranch Community, Unincorporated Los Angeles County, California (Los Angeles County Project R2016-002179, Vesting Tentative Tract Map No. TR074650, Conditional Use Permit 2016004409, and Environmental Assessment 2016004410). The southern portion of the project site, is located within the Los Angeles County Santa Susana Mountains/Simi Hills Significant Ecological Area, and thus the project is required to process a Significant Ecological Area Conditional Use Permit (CUP), which requires review by the Significant Ecological Area Technical Advisory Committee (SEATAC), if development is to be permitted within the SEA boundary (Los Angeles County Planning and Zoning Code Section 22.56.215.A). This report provides an inventory of biological resources, including a preliminary jurisdictional analysis, consistent with the requirements of the Biological Constraints Analysis (BCA) Checklist and Recommendations of Los Angeles County.

Contact information for the project Applicant and the Biologists are as follows:

Applicant

Jemstreet Properties
1435 Reynolds Court
Thousand Oaks, California 91362
Contact: Mr. Rick Coop

Biologist

ESA
2121 Alton Parkway, Suite 100
Irvine, CA 92606
Contact: Dr. Daryl Koutnik

1.2 Project Site Location

The approximately 94-acre project site is generally situated west of Interstate 5 (I-5), north of California State Route 118 (SR-118), south of California State Route 126 (SR-126), and east of the Los Angeles-Ventura County boundary, as shown in **Figure 1**, *Regional Map*. Specifically, the project site is located south of the intersection of Pico Canyon Road and Stevenson Ranch

Parkway. The project site is depicted on the U.S. Geological Survey (USGS) 7.5' Newhall and Oat Mountain topographic quadrangle maps, Section (S) 5, Township (T) 3 North (N), Range (R) 16 West (W), as shown in **Figure 2**, *Vicinity Map*.

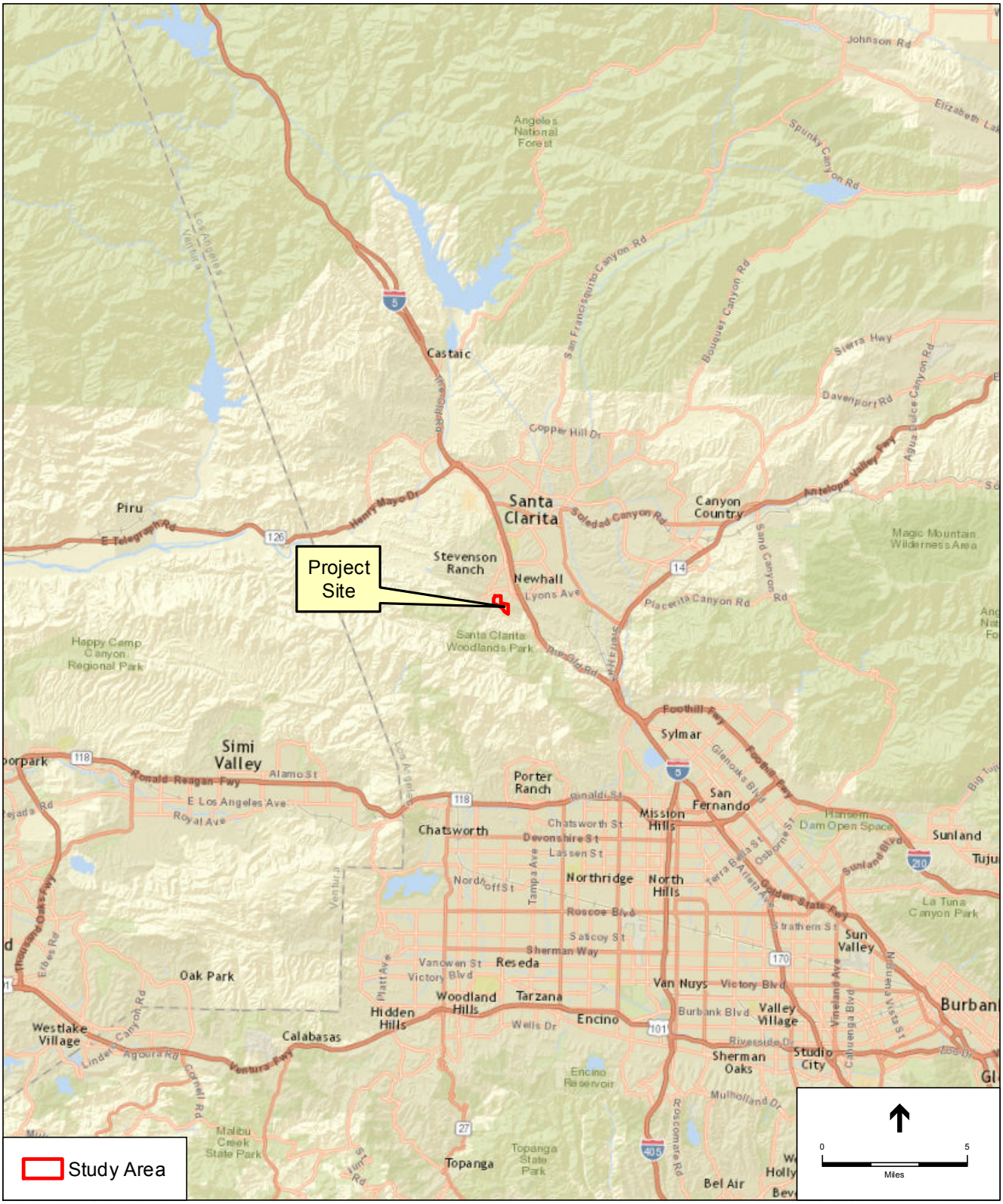
The project site is located within three parcels; APNs 2826-020-012, 2826-020-013 and 2826-020-061 which are located within the Stevenson Ranch Area, Unincorporated Los Angeles County. **Table 1**, *Project APNs and Acreages*, provides the APN with the on-site acreages.

TABLE 1
PROJECT APNS AND ACREAGES

APN	Acreage
2826-020-012	19.75
2826-020-013	19.99
2826-020-061	54.64
Total	94.38

Source: ESA, 2016

The topography of the project site ranges from moderate to steep. Elevations on the project site range from the lowest of approximately 1,320 feet above mean sea level (MSL) in the northern portion of the project site, to a high of approximately 1,700 feet above MSL in the eastern side of the central portion of the project site.



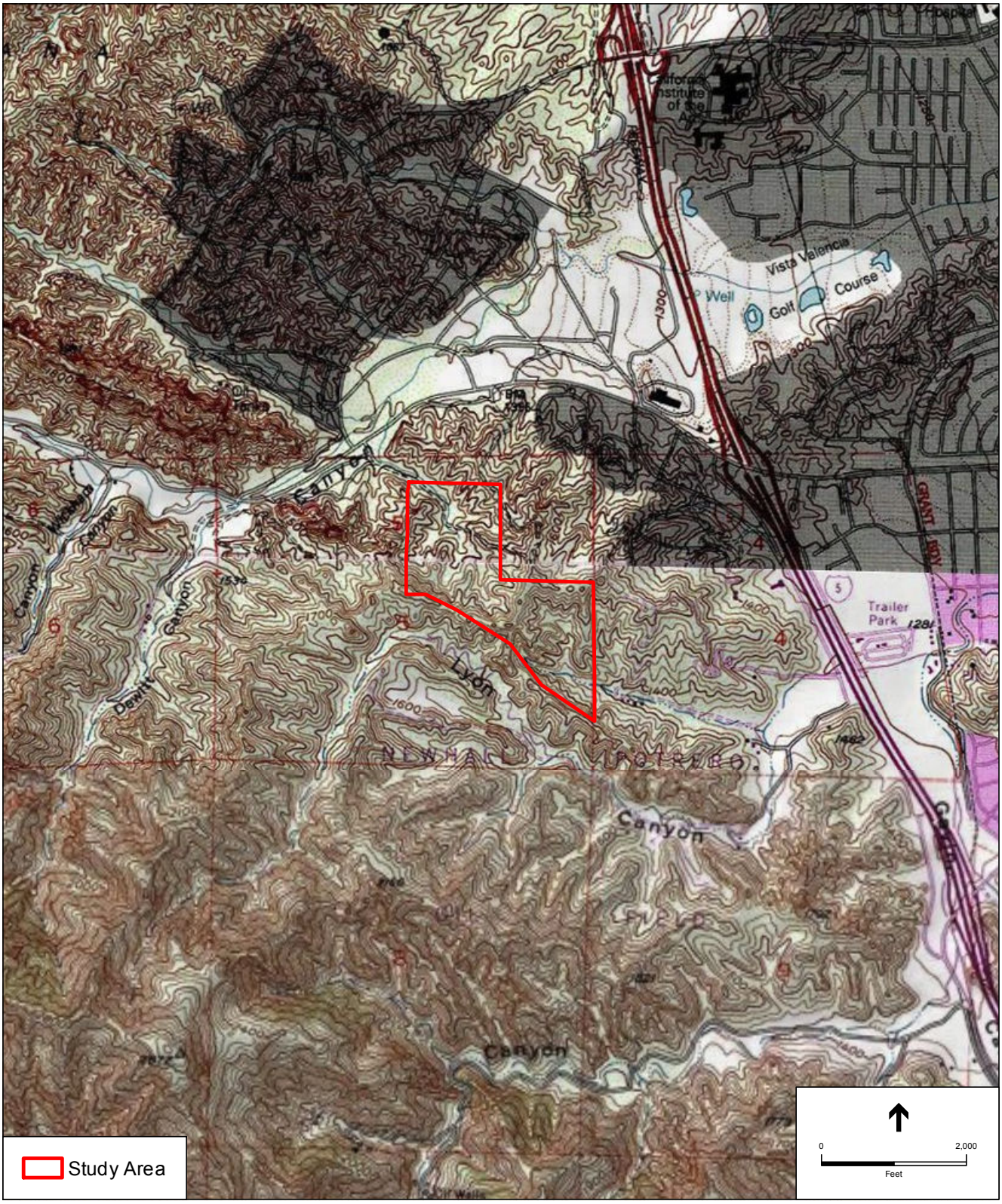
SOURCE: ESRI StreetMap, 2009.

Canyon View Estates

Figure 1

Regional Map

ESA PCR



SOURCE: USGS Topographic Series (Newhall, Oat Mountain, CA).

Canyon View Estates

Figure 2

Vicinity Map

ESA PCR

CHAPTER 2
Methodology

2.1 Approach

This BCA is based on information compiled through field reconnaissance and appropriate reference materials. A general biological survey, vegetation mapping, and cursory review of jurisdictional waters was conducted (see **Table 2**, *Summary of Field Investigations*). Focused surveys for sensitive plants were conducted in June 2016 during the appropriate blooming periods for species with the potential to occur on the project site.

TABLE 2
SUMMARY OF FIELD INVESTIGATIONS

Survey	Dates	Surveyors
General Biological Survey, Vegetation Mapping, Preliminary Jurisdictional Waters Investigation, Focused Plant Surveys	June 16 and 17, 2016	E. Cooley, A. Lee
Oak Tree Mapping	November 11, 2016 and February 9, 2017	G. Ainsworth, R. Sweet

Source: ESA, 2016

2.2 Literature Review

Assessment of the project site and off-site areas began with a review of relevant literature on the biological resources of the project site and surrounding vicinity. The California Natural Diversity Database (CNDDB), a California Department of Fish and Wildlife (CDFW) species account database, was reviewed for all pertinent information regarding the localities of known observations of sensitive species and habitats in the vicinity of the project site (CDFW, 2016). The vicinity of the project site included the following USGS topographic quadrangles: Calabasas, Canoga Park, Mint Canyon, Newhall, Oat Mountain, San Fernando, Simi, Val Verde, Van Nuys, Whitaker Peak, Warm Springs Mountain, and Green Valley. Federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service (USFWS) (USFWS, 2016a), CDFW and the California Native Plant Society (CNPS, 2016) were reviewed in conjunction with anticipated Federally and State listed species potentially occurring within the vicinity. Other data sources reviewed include USFWS critical habitat maps (USFWS, 2016b) and

United States Department of Agriculture Natural Resources Conservation Service (NRCS) soils mapping (NRCS, 2016).

In addition, numerous regional flora and fauna field guides were utilized to assist in the identification of species and suitable habitats. A list of all relevant references reviewed is included in Section 9.0, *References*.

2.3 Field Investigations

A general biological survey, vegetation mapping, focused plant survey and preliminary jurisdictional waters investigation was conducted by ESA biologists Ezekiel Cooley and Amy Lee on June 16 and 17, 2016 for the project site. During the site visit, an inventory of plant and wildlife species observed was compiled. The observed plant communities, potential jurisdictional features, and other biological features or species observations of interest were noted and/or mapped on aerial photographs. The methods for these field investigations are described in detail below. ESA biologists Greg Ainsworth and Robert Sweet conducted the oak tree surveys of all oak trees located within the property on November 11, 2016 and on February 9, 2017.

Appendix A, *Biologist Resumes*, includes the resumes of the biologists participating in the preparation of this report.

2.3.1 Plant Community Mapping

Plant communities were mapped directly in the field utilizing a 250-scale (1"=250') aerial photograph focusing on dominant plant species. Plant community names, codes, and descriptions follow *A Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf, and Evens, 2009). Herein the codes are referred to as MCV codes. After completing the fieldwork, the plant community polygons were digitized using Geographic Information System (GIS) technology to calculate acreages.

2.3.2 General Plant Inventory

All plant species observed during the general biological survey were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Baldwin (2012). Common plant names, when not available from Baldwin, were taken from Munz (1974) and/or Clarke (2007). Since common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter. A list of all floral species observed in the project site is provided in **Appendix B,** *Floral and Faunal Compendium*.

2.3.3 Special-Status Plant Species

The potential for special-status plant species was assessed based upon the known occurrence of species in the area as identified from CDFW, USFWS and CNPS databases (see Section 2.2, *Literature Review*), and the presence or absence of suitable habitat within the project site based on plant community mapping (see section 5.1, *Plant Communities*). Suitable habitat was defined as areas with appropriate vegetation communities, soils and/or topography (elevation at MSL) to

support the species based on known occurrences in those habitats and/or CDFW and CNPS documented habitat descriptions for the species.

The definitions of suitable habitat were then compared against the vegetation mapping conducted for the project site and local knowledge. A table of special-status plant species for which potentially suitable habitat occurs within the project site was prepared, and the potential for occurrence for each species was determined following completion of the vegetation mapping conducted during the field survey.

2.3.4 General Wildlife Inventory

All wildlife species observed within the project site, as well as any diagnostic sign (call, tracks, nests, scat, remains, or other sign), were recorded in field notes. Binoculars and regional field guides were utilized for the identification of wildlife, as necessary. Wildlife taxonomy follows Stebbins (2003) for amphibians and reptiles, the American Ornithologists' Union (1998) for birds, and Jameson and Peeters (1988) for mammals. Since common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter. All wildlife species detected were recorded in field notes. A list of all faunal species observed in the project site is provided in Appendix B.

2.3.5 Preliminary Jurisdictional Delineation

Although a formal jurisdictional delineation was not performed, a preliminary investigation of jurisdictional waters was conducted on-site during the June 16 and 17, 2016 site visits. The purpose of the preliminary delineation was to locate any potential "waters of the U.S." and/or wetlands under the jurisdiction of the U.S. Army Corps of Engineers (USACE), "waters of the State" and/or wetlands under the jurisdiction of the Regional Water Quality Control Board (RWQCB), and/or streambed and associated riparian habitat under the jurisdiction of the CDFW.

CHAPTER 3
Description of Natural Geographic Features

3.1 Landforms and Geomorphology

The project site is located in the northern foothills of the Santa Susana Mountains of the transverse ranges. The entire project site lies on Pilo-Pleistocene and Pliocene loosely consolidated deposits (Miocene to Pleistocene). The primarily rock type is sandstone, with a secondary rock type of conglomerate, and includes other rocks types such as claystone, shale, siltstone, limestone, evaporate, coal, and sedimentary breccia (USGS, 2016a; USGS, 2016b).

3.2 Drainage and Wetland Features

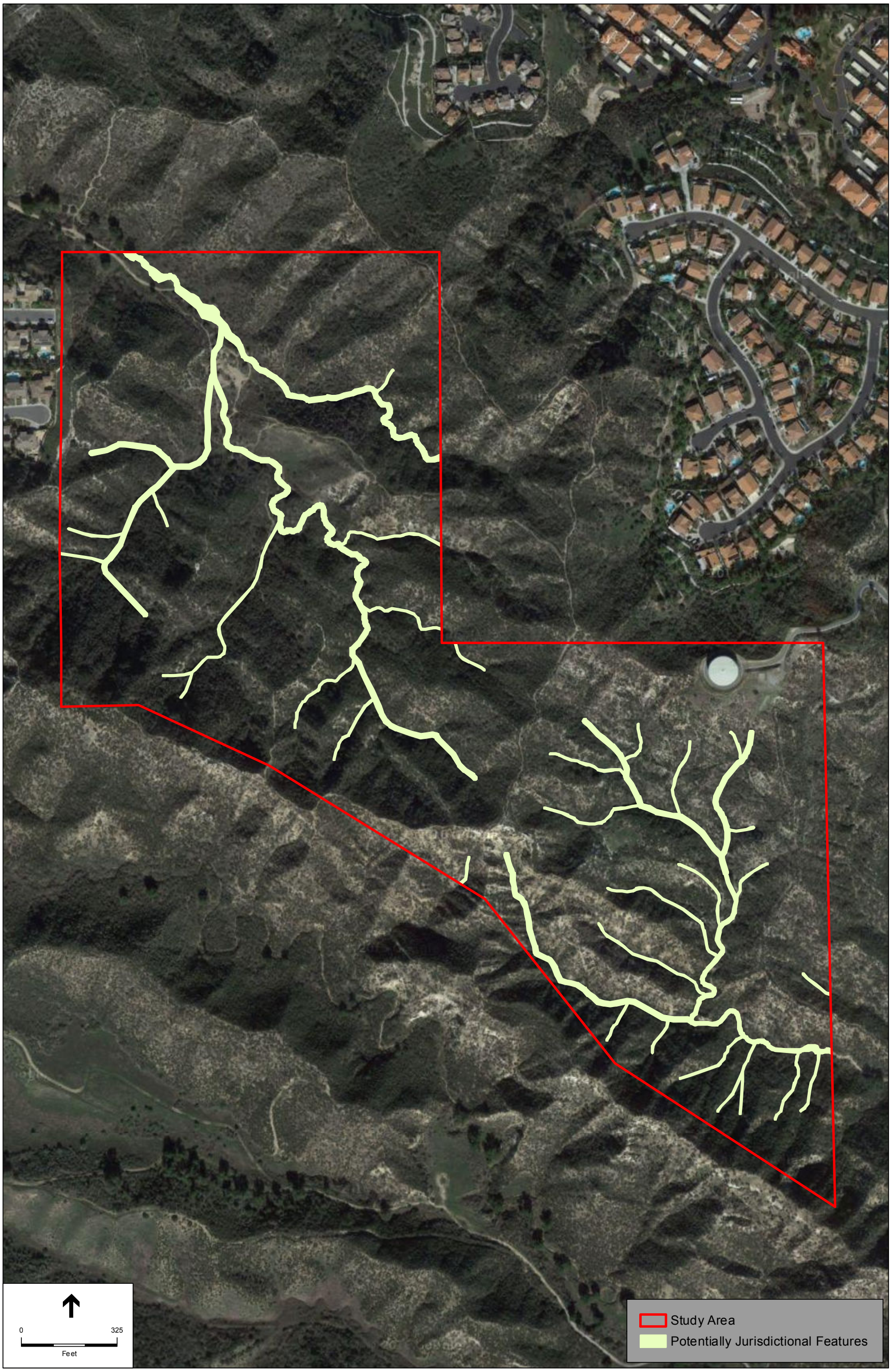
A formal jurisdictional delineation was not performed during the June 2016 field investigation. However, a preliminary jurisdictional determination was conducted to identify any drainage features and boundaries potentially subject to the jurisdiction of the USACE, RWQCB, and/or CDFW referencing information from a Jurisdictional Delineation performed by Envicom (Envicom 2006). A number of potentially jurisdictional features occur along the deep canyons throughout the project site, as mapped on **Figure 3**, *Potentially Jurisdictional Features*. A potential drainage begins near the center of the project site at the base of multiple hillsides with several tributaries connecting to it. This potential drainage located in the northern portion of the project site connects to the Wickham Canyon Creek blueline stream approximately 0.25 mile north of the northern boundary of the project site. The southern portion of the project site contains two potential drainages which begin on the project site, one beginning near water tower site and the other adjacent to the southern boundary of the project site, and meet in the southern portion and connect to the Lyon Canyon blueline drainage located approximately 0.46 miles east of the project boundary. The Wickham Canyon Creek and Lyon Canyon drainages are tributaries to the Santa Clara River which drains into the Pacific Ocean approximately 40 miles to the west.

3.3 Soils

Mapped soils in the project site are shown on **Figure 4**, *Soils Map,* and include the following two soil types (NRCS, 2016):

- Saugus loam, 30 to 50 percent slopes
- Castaic and Saugus soils, 30 to 65 percent slopes, severely eroded

The Saugus series consists of deep, well drained soils that formed from weakly consolidated sediments. Saugus soils are dissected terraces and foothills and have slopes of 9 to 50 percent. Castaic soils are well drained, moderately slowly permeable that are strongly sloping to very steep. Castaic soils are formed in residuum weathered from shale, sandstone, and mudstone.



SOURCE: Google Maps, 2015.

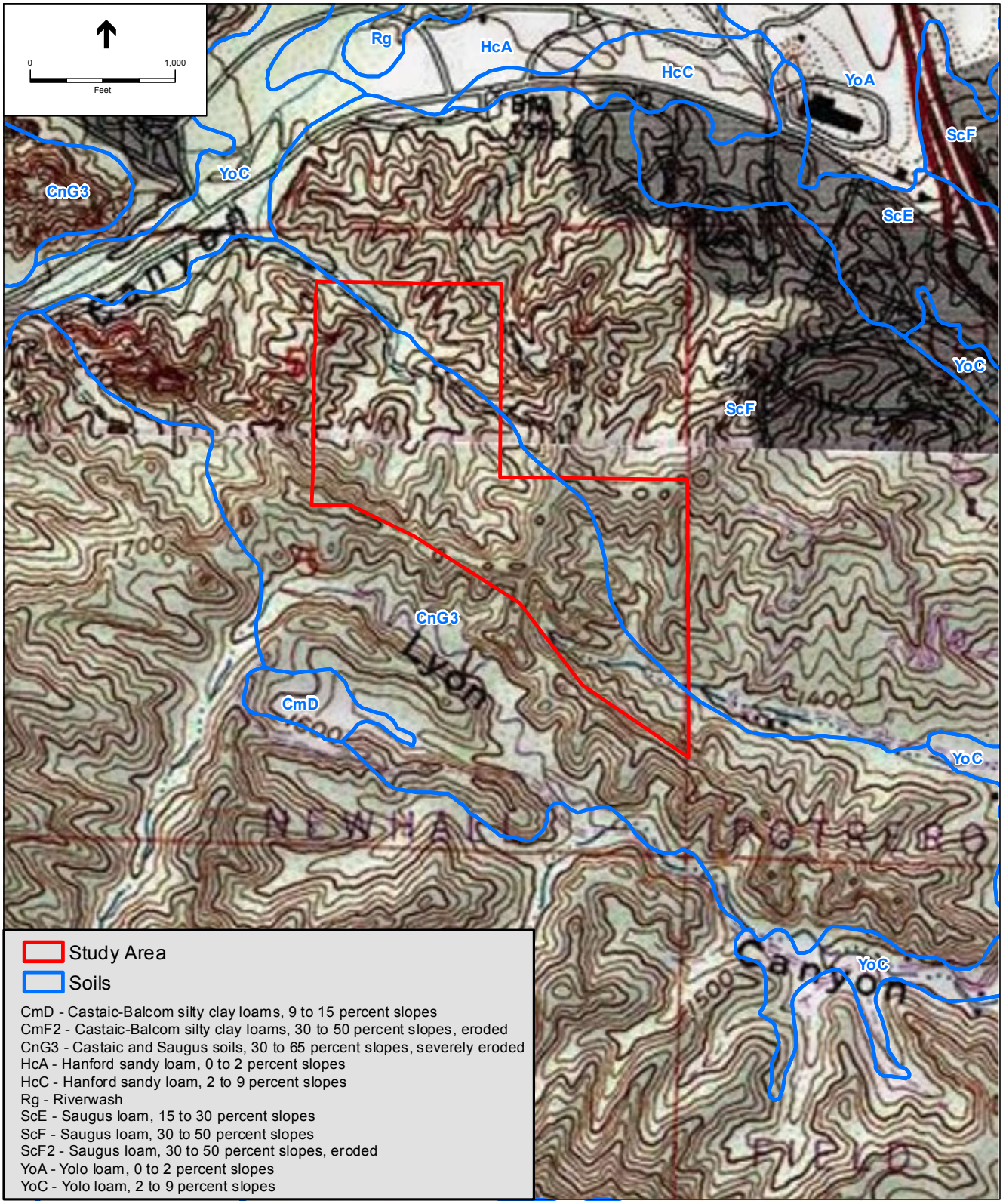
Canyon View Estates

Figure 3

Potentially Jurisdictional Features

ESA PCR

This page intentionally left blank



SOURCE: USGS Topographic Series (Calabasas, CA).

Canyon View Estates
Figure 4
Soils Map

ESA PCR

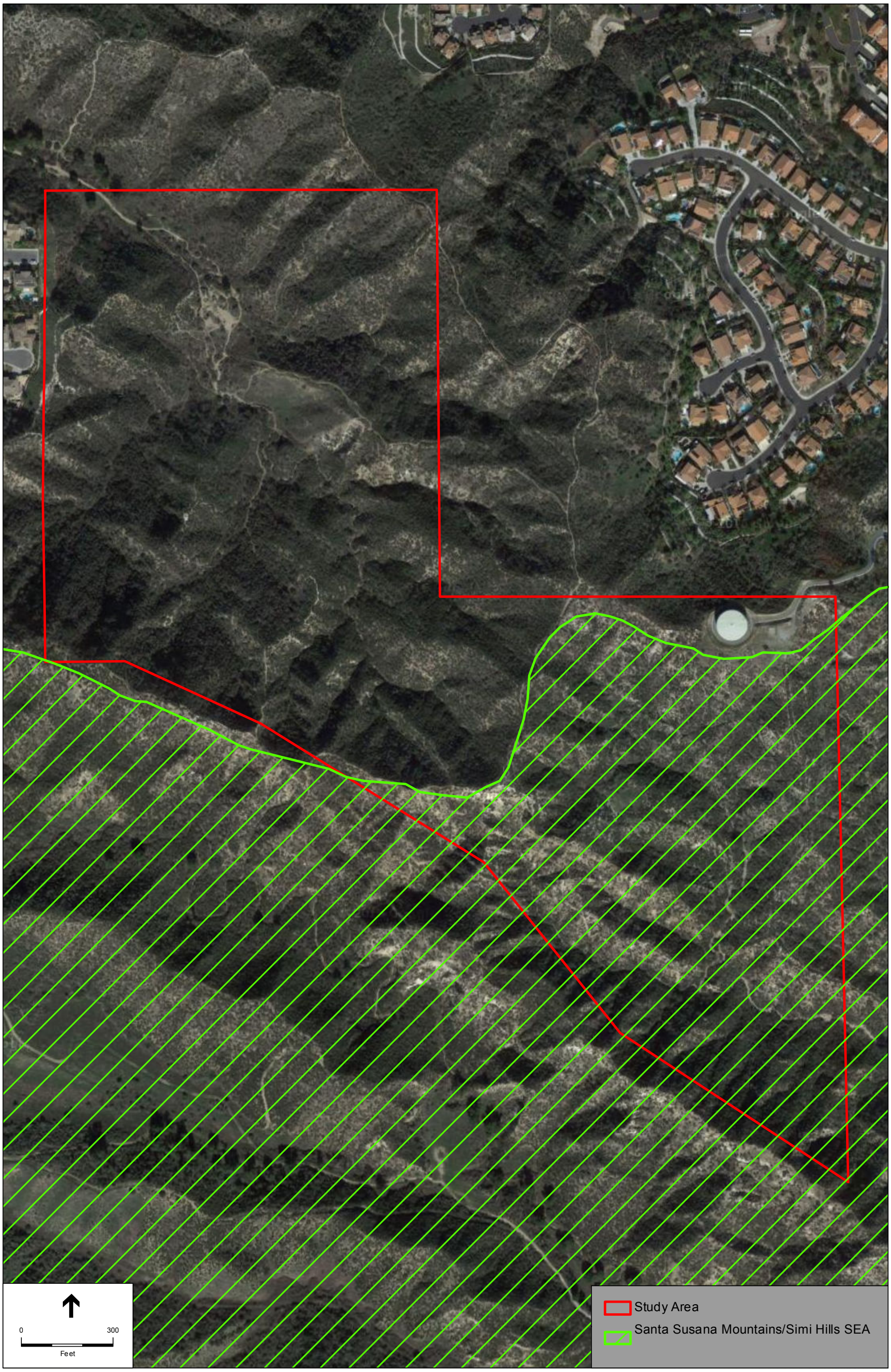
CHAPTER 4
Significant Ecological Area Criteria and Resources

4.1 Santa Susana Mountains/Simi Hills SEA

The southern half of the project site is located in the Santa Susana Mountains/Simi Hills, as shown on **Figure 5**, *Relationship to SEA*. In 2000, PCR Services Corporation completed the Los Angeles County Significant Ecological Area Update Study 2000. The six selection criteria used in determining which areas qualify for SEA designation are:

1. The habitat of core populations of Endangered or Threatened plant of animal species;
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either unique or are restricted in distribution on a regional basis;
3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either unique or are restricted in distribution within Los Angeles County;
4. Habitat that at some point in the life cycle of a species or group of species serves as concentrated breeding, feeding, resting, or migrating grounds, and is limited in availability either regionally or in Los Angeles County;
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community;
6. Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in Los Angeles County.

The Santa Susana Mountains/Simi Hills SEA meets four of the above six selection criteria (criteria 2, 3, 4, and 6). The basis for the areas designation as an SEA is based upon 1) biotic communities, vegetative associations, and habitat of plant and animal species that are restricted in distribution in Los Angeles County and regionally; 2) concentrated breeding, feeding, resting or migrating grounds which are limited in availability to Los Angeles County; 3) areas that provide for the preservation of relatively undisturbed examples of original biotic communities in Los Angeles County. Coastal sage scrub, alluvial scrub, valley oak woodland, valley oak savannah, mainland cherry woodland, native grassland, southern willow scrub, and cottonwood-willow riparian forest are plant communities found in the SEA considered highest inventory priority communities by CDFW. The topographic complexity and coastal and desert influences within the SEA supports a wide diversity of plants, including the rare Santa Susana tarplant (*Deinandra minthornii*). The relatively undisturbed nature and large size of the plant communities within the Santa Susana Mountains and Simi Hills provides many undisturbed examples of native, natural communities within Los Angeles County.



SOURCE: Google Maps, 2015.

Canyon View Estates
Figure 5
Relationship to SEA

ESA PCR

This page intentionally left blank

CHAPTER 5
Biological Characteristics of the Site

5.1 Plant Communities

Descriptions of each of the plant communities found within the project site with MCV codes are provided below, and locations of each of the plant communities are shown in **Figure 6**, *Plant Communities.* **Table 3**, *Plant Communities,* lists each of the plant communities observed, as well as the acreage within the project site. CDFW considers any plant alliance with a State rank of S1-S3 to be considered a sensitive community. There is one sensitive plant communities on the project site, Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands. Representative photographs of plant communities found within the project site are included in **Figure 7a** and **7b**, *Site Photographs.*

TABLE 3
PLANT COMMUNITIES

Plant Communities	Total (acres)
Chamise Chaparral	52.23
Bush Mallow Scrub	15.30
Hoary Leaf Ceanothus Chaparral	18.07
Mule Fat Thickets	0.30
Chamise Chaparral/Hoary Leaf Ceanothus Chaparral	1.88
Bush Mallow Scrub/Chamise Chaparral	1.45
Red Brome Semi-natural Stands	0.25
Red Brome Semi-natural Stands/Chamise Chaparral	1.32
Red Brome Semi-natural Stands/Hoary Leaf Ceanothus Chaparral	1.31
Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands	0.35
Disturbed	1.49
Total	**93.95**

SOURCE: ESA, 2016

5.1.1 Chamise Chaparral (37.101.16)

Chamise Chaparral is dominated by chamise (*Adenostoma fasciculatum*) with black sage (*Salvia mellifera*) as a subdominat species in the community. Additional native species observed within this community include Califonia buckwheat (*Eriogonum fasciculatum*), cudweed aster (*Corethrogyne filaginifolia*), soap plant (*Chlorogalum pomeridianum*), deerweed (*Acmispon glaber*), coast live oak (*Quercus agrifolia*), telegrapgh weed (*Heterotheca grandiflora*), sacapellote (*Acourtia microcephala*), slender aster (*Aster subulatus*), thickleaf yerba santa

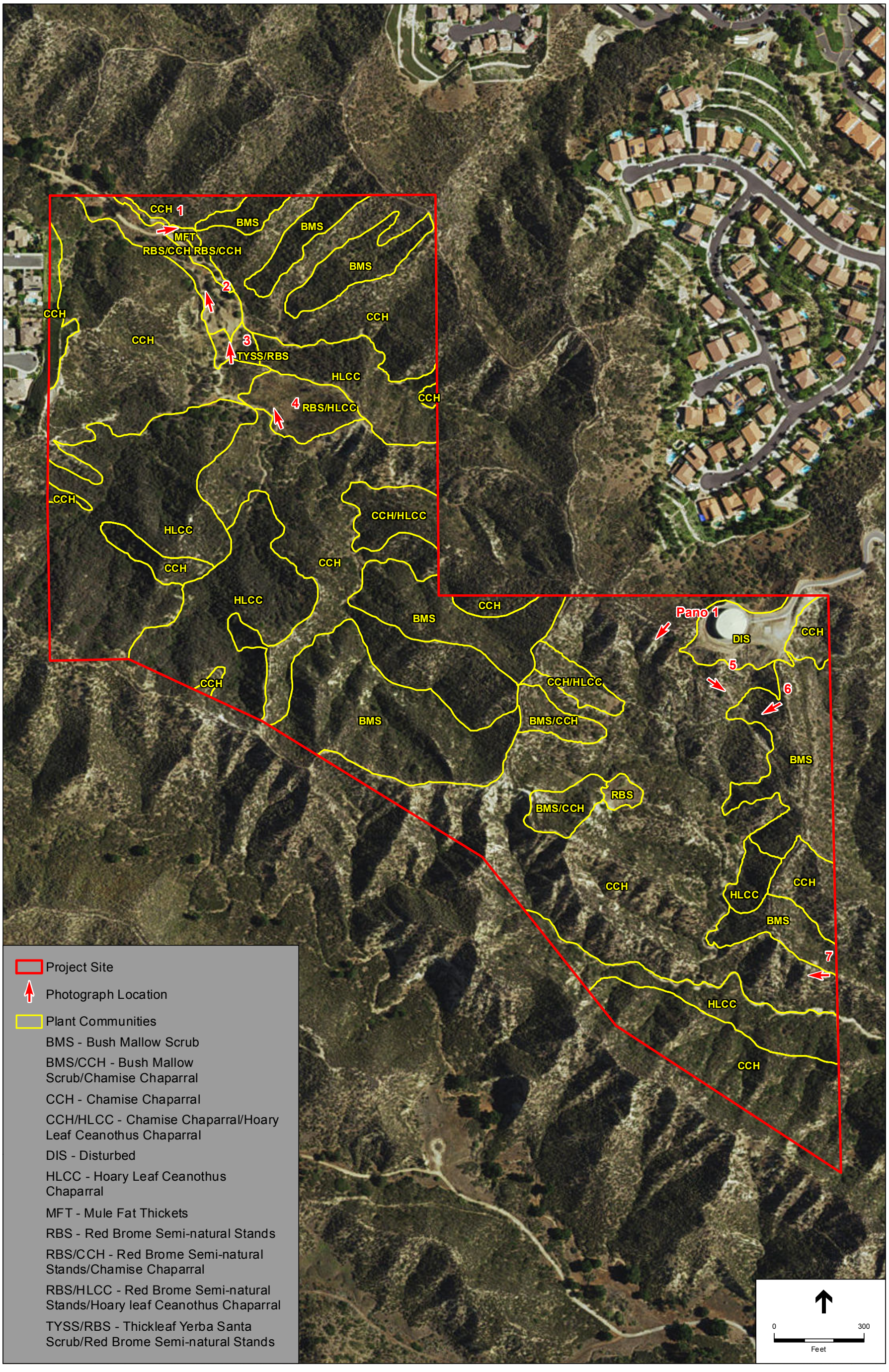
(*Eriodictyon crassifolium*), bush mallow (*Malacothamnus fasciculatus*), pinebush (*Ericameria pinifolia*), blue dicks (*Dichelostemma capitatum*), sqawbush (*Rhus aromatica*), slender mariposa lily (*Calochotus clavatus* var. *gracilis*), sugar bush (*Rhus ovata*), wild cucumber (*Marah macrocarpus*), golden yarrow (*Eriophyllum confertiflorum*), hoary leaf ceanothus (*Ceanothus crassifolius*), elegent clarkia (*Clarkia unguiculata*), woolly bluecurls (*Trichostema lanatum*), mountain mahogany (*Cercocarpus betuloides*), chaparral yucca (*Hesperoyucca whipplei*), common sunflower (*Helianthus annuus*), ladies' tobacco (*Pseudognaphalium californicum*), fiddleneck (*Amsinckia* sp.), spiny redberry (*Rhamnus crocea*), coyote brush (*Baccharis pilularis*), laurel sumac (*Malosma laurina*), mule fat (*Baccharis salicifolia*), cliff malacothrix (*Malacothrix saxatilis*), scrub oak (*Quercus berberidifolia*), California suncup (*Camissonia californica*), beardless wild rye (*Elymus triticoides*), and toyon (*Heteromeles arbutifolia*). Non-native species oberserved within the community include red brome (*Bromus madritensis* ssp. *rubens*), ripgut grass (*Bromus diandrus*), red gum eucalyptus (*Eucalyptus camaldulensis*), Italian ryegrass (*Festuca perennis*), and tocalote (*Centaurea melitensis*). Chamise Chaparral is the domiannt plant community on the project site and is located throughout the site, with the largest area occurring south of the water tank in the southern portion of the project site. The majority of the project site is comprised of Chamise Chaparral with 52.23 acres.

5.1.2 Bush Mallow Scrub (45.450.01)

Bush Mallow Scrub is a community characterized by a strong, almost monotypic, dominance of bush mallow. Within the Bush Mallow Scrub community, chamise is a subdominant species. The Bush Mallow Scrub community is comprised of the same native species found in Chamise Chaparral. One additional species observed within the Bush Mallow Scrub includes Plummer's mariposa lily (*Calochortus plummerae*). Bush Mallow Scrub is found throughout the project site. Bush Mallow Scrub occupies 15.30 acres of the project site.

5.1.3 Hoary Leaf Ceanothus Chaparral (37.208.01)

Hoary Leaf Ceanothus Chaparral is dominated by hoary leaf ceanothus. Additional native species observed within the community include chamise, ladies' tobacco, wild cucumber, hairy yerba santa, lemonade berry (*Rhus integrifolia*), coyote brush, California buckwheat, blue elderberry (*Sambucus nigra* ssp. *caerulea*), sacapellote, Turkish rugging (*Chorizanthe staticoides*), California sagebrush (*Artemisia californica*), and whispering bells (*Emmenanthe penduliflora*). Non-native species observed within this community include red brome and ripgut brome. Hoary Leaf Ceanothus Chaparral is located adjacent to or along the western, southwestern, eastern, and southern boundaries of the project site. Hoary Leaf Ceanothus Chaparral occupies 18.07 acres of the project site.



SOURCE: Google Maps, 2015.

Canyon View Estates
Figure 6
Plant Communities

ESA PCR

This page intentionally left blank

PHOTOGRAPH 1. Photograph of Mule Fat Thickets in the foreground and Bush Mallow Scrub in the background, looking northeast.

PHOTOGRAPH 2. Photograph of Red Brome Semi-natural Stands/Chamise Chaparral community, looking north.

PHOTOGRAPH 3. Photograph of Red Brome Semi-natural Stands/Thickleaf Yerba Santa Scrub, looking north.

PHOTOGRAPH 4. Photograph of Red-Brome Semi-natural Stands/Hoary Leaf Ceanothus Chaparral with Chamise Chaparral in the background, looking north.

NOTE: See Figure 6 for photograph station locations.

SOURCE: ESA PCR, 2016

Canyon View Estates

Figure 7a

Site Photographs

ESA PCR

PHOTOGRAPH 5. Photograph of Chamise Chaparral in the foreground and Bush Mallow Scrub in the background, looking southeast.

PHOTOGRAPH 6. Photograph of Bush Mallow Scrub in foreground with Red Brome Semi-natural Stands in the middle, and Bush Mallow Scrub/Chamise Chaparral in the background, looking southwest.

PHOTOGRAPH 7. Photograph of Chamise Chaparral in the foreground, Hoary Leaf Ceanothus Chaparral in the middle, and Chamise Chaparral in the background, looking southwest.

PHOTOGRAPH 8. Panoramic view of Chamise Chaparral, Chamise Chaparral/Hoary Leaf Ceanothus Chaparral, and Red Brome Semi-natural Stands in the background, looking southwest.

NOTE: See Figure 6 for photograph station locations.

SOURCE: ESA PCR, 2016

Canyon View Estates

Figure 7b

Site Photographs

ESA PCR

5.1.4 Mule Fat Thickets (63.510.01)

Mule fat Thickets is a community strongly dominated by mule fat (*Baccharis salicifolia*). This community is considered riparian or associated with surface water or a persistent, moderately shallow water table and is often maintained by frequent flooding. Additional native species observed within the community include thickleaf yerba santa, squawbush, California ash, , and blue elderberry. Non-native species observed within this community include red brome, ripgut brome, and shortpod mustard (*Hirshfeldia incana*). Mule Fat Thickets is located in the northern portion of the project site, adjacent to the trail which enters the project site from the northwest. Mule Fat Thickets occupy 0.30 acre of the project site.

5.1.5 Chamise Chaparral/Hoary Leaf Ceanothus Chaparral (37.101.16/37.208.01)

Chamise Chaparral/Hoary Leaf Ceanothus Chaparral is dominated by chamise with a subdominance of hoary leaf ceanothus. This community is comprised of the species from the Chamise Chaparral and Hoary Leaf Ceanothus communities with an understory comprised of red brome. Additional native species observed within the community includes filago (*Filago* sp.) and Nevin's brickellia (*Brickellia nevinii*). Two pockets of this community are located on the project site, one in the northern portion of the project site adjacent to the eastern boundary and another in the southern portion of the project site southwest of the water tank. Chamise Chaparral/Hoary Leaf Ceanothus Chaparral occupies 1.88 acres of the project site.

5.1.6 Bush Mallow Scrub/Chamise Chaparral (45.450.01/37.101.16)

Bush Mallow Scrub/Chamise Chaparral is dominated by bush mallow with a subdominance of chamise. This community is comprised of species from the Bush Mallow Scrub and Chamise Chaparral community. One additional native species was observed in this community includes Plummer's mariposa lily (*Calochortus plummerae*). Two pockets of Bush Mallow Scrub/Chamise Chaparral are located in the southern portion of the project site west of the water tank. The Bush Mallow Scrub/Chamise Chaparral occupies 1.45 acres of the project site.

5.1.7 Red Brome Semi-natural Stands (42.024.01)

Red Brome Semi-natural Stands is a community dominated by non-native red brome. One small area of Red Brome Semi-natural Stands is located in the southern portion of the project site, south of the water tank. Red Brome Semi-natural Stands occupies 0.25 acre of the project site.

5.1.8 Red Brome Semi-natural Stands/Chamise Chaparral (42.024.01/37.101.16)

Red Brome Semi-natural Stands/Chamise Chaparral is dominated by red brome with a subdominance of chamise. Additional native species observed within this community include coyote brush, mule fat, cliff malacothrix (*Malacothrix saxatilis*), pinebush, western verbena (*Verbena lasiostachys*), narrowlead milkweed (*Asclepias fascicularis*), blue elderberry, coast live oak, slender sunflower (*Helianthus gracilentus*), fascicled tarplant (*Deinandra fasciculata*), and foothill needlegrass (*Stipa lepida*). Non-native species observed within this community include shortpod mustard, tocalote, yellow star-thistle (*Centaurea solstitialis*), ripgut brome, and nettle-leaved goosefoot (*Chenopodium murale*). This community is found adjacent to the trail loacted in the northwestern portion of the project site. Red Brome Semi-natural Stands/Chamise Chaparral occupies 1.55 acres of the project site.

5.1.9 Red Brome Semi-natural Stands/Hoary Leaf Ceanothus Chaparral (42.024.01/37.208.00)

Red Brome Semi-natural Stands/Hoary Leaf Ceanothus is dominated by red brome with a subdominance of hoary leaf ceanothus. One small area of this community is located centrally in the northern portion of the project site. Red Brome Semi-natural Stands/Hoary Leaf Ceanothus Chaparral occupies 1.31 acres of the project site.

5.1.10 Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands (37.090.00/42.024.01)

Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands is dominated by thickleaf yerba santa with a subdominant understory of red brome. Additional native species within this community includes mule fat, blue elderberry, common fiddleneck (*Amsinckia intermedia*), coyote brush, bush mallow, and sacapellote. Non-native species found within this community includes tocalote, shortpod mustard, and ripgut brome. One small area of this community occurs in the northern portion of the project site adjacent to the southern end of the trail. Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands occupies 0.35 acre of the project site.

5.1.11 Disturbed (N/A)

Disturbed areas consist of areas heavily disturbed by human activities with little to no vegetation. Disturbed areas within the project site are comprised of the fuel modification area adjacent to the water tank. Non-native species observed within the disturbed community include slender wild oat (*Avena barbata*), Russian thistle (*Salsola tragus*), shortpod mustard, and prickly lettuce (*Lactuca serriola*). A small number of native species were also observed in the disturbed community, which include, thickleaf yerba santa, laurel sumac, California buckwheat, and bush mallow. The disturbed area occupies 1.49 acres of the project site.

5.2 Special-Status Plant Species

The potential for special-status plant species was assessed based upon the known occurrence of species in the area as identified from CDFW, USFWS and CNPS databases, and the presence or absence of suitable habitat within the project site based on plant community mapping.

Suitable habitat was defined as areas with appropriate plant communities, soils and/or topography (elevation at MSL) to support the species based on known occurrences in those habitats and/or CDFW and CNPS documented habitat descriptions for the species. The definitions of suitable habitat were then compared against the plant community mapping conducted for the project site and local knowledge. A table of sensitive plant species for which potentially suitable habitat occurs within the project site was prepared, and the potential for occurrence for each species was determined following completion of the vegetation mapping conducted during the field survey, included as **Appendix C**, *Special-Status Plant Species*.

Due to the presence of potentially suitable habitat on-site, a focused sensitive plant survey was conducted on June 16 and 17, 2016 during the appropriate blooming period for the following species: Nevin's Barberry (*Berberis nevinii*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), late-flowered mariposa lily (*Calochortus fimbriatus*), Plummer's mariposa lily (*Calochortus plummerae*), Pierson's morning-glory (*Calystegia peirsonii*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), Parry's spineflower (*Chorizanthe parryi var. parryi*), Santa Susana tarplant, Palmer's grapplinghook (*Harpagonella palmeri*), southern California black walnut (*Juglans californica*), Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), Ojai Navarretia (*Navarretia ojaiensis*), chaparral ragwort (*Senecio aphanactis*), and Greta's aster (*Symphyotrichum greatae*).

Two sensitive plant species were observed on the project site, as shown on **Figure 8**, *Special-Status Plant Species Locations*. These species include slender mariposa lily and Plummer's mariposa lily. The distinctive dried seed pods of both species were observed in various locations throughout the project site.

5.3 Special-Status Wildlife Species

A habitat analysis for sensitive wildlife species was conducted during the general biological site visit. Sensitive wildlife species include those species listed as endangered or threatened under the FESA or CESA, candidates for listing by the USFWS or CDFW, species of special concern to the CDFW (SSC), and species considered sensitive by the USDA Forest Service (USFS) (FSS). Two sensitive wildlife species, Swainson's hawk (*Buteo swainsoni*) and Crotch bumblebee (*Bombus crotchii*) were reported in the CNDDB within the vicinity, as shown on **Figure 9**, *CNDDB Sensitive Species*. All wildlife species observed on-site, or the evidence of their presence, were recorded during the field investigation and provided as **Appendix D**, *Special-Status Wildlife Species*.

Sensitive wildlife species with the potential to occur within the project site due to suitable habitat include crotch bumble bee, western spadefoot (*Spea hammondii*) [California Species of Special

Concern (SSC)], silvery legless lizard (*Anniella pulchra pulchra*) [SSC], coast horned lizard (*Phrynosoma coronatum*) [SSC], coastal whiptail (*Aspidoscelis tigris stejnegeri*) [CDFW Special Animals], American peregrine falcon (*Falco peregrinus anatum*) [Fully Protected (FP)], southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) [Watch List (WL)], Bell's sage sparrow (*Artemisiospiza belli belli*) [WL], San Diego desert woodrat (*Neotoma lepida intermedia*) [SSC], southern grasshopper mouse (*Onychomys torridus ramona*) [SSC], western mastiff bat (*Eumops perotis californicus*) [SSC], and pallid bat (*Antrozous pallidus*) [SSC].

The project site does not provide nesting opportunities for species (due to lack of suitable nesting habitat), but does provide foraging habitat for several species, including Cooper's hawk (*Accipiter cooperi*) [WL], golden eagle (*Aquila chrysaetos*) [FP], Swainson's hawk (*Buteo swainsoni*) [State Threatened (ST)], white-tailed kite (*Elanus leucurus*) [FP], turkey vulture (*Cathartes aura*) [Los Angeles Audubon (LAA)], loggerhead shrike (*Lanius ludovicianus*) [SSC], burrowing owl (*Athene cunicularia*) [SSC], oak titmouse (*Baeolophus inornatus*) [Audubon Watch List (AWL)], coastal California gnatcatcher (*Polioptila californica californica*) [FT, SSC], Townsend's big-eared bat (*Corynorhinus townsendii*) [SCT, SSC], and hoary bat (*Lasiurus cinereus*) [Western Bat Working Group (WBWG) Medium].

These species, in addition to others with the potential to occur within the study area, are discussed in Appendix D.

No Federal or State listed wildlife species were observed within the project site during the general biological survey.

5.4 Sensitive Plant Communities

Natural community elements or vegetation types are considered of special concern when their State rarity rank is listed as S1-S3. These communities are designated by an asterisk as high priority in the CDFW List of California Terrestrial Natural Communities (CDFW 2010). These communities may be perceived as declining but are not officially regarded as "sensitive" yet. Only Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands is considered a sensitive plant community on the project site, pursuant to State or Federal regulations. However, the understory of this plant community on-site is disturbed with a dominant component of non-native species and consequently is of lower biological value than undisturbed representations elsewhere in southern California.

5.5 Oak Woodlands

In 2011, the County of Los Angeles adopted the Los Angeles County Oak Woodlands Conservation Management Plan to encourage the preservation of oak woodlands through the County. It is the intent of the County to maintain and expand the oak woodland habitat by requiring development designs to avoid impacts to oak woodlands and require appropriate compensatory mitigation where oak woodland impacts remove such habitat. In addition, the County has prepared the March 18, 2014 Los Angeles County Oak Woodlands Conservation Management Plan Guide (Guide) for the consideration of the preservation of oak woodlands. A stand of coast live oak trees occur to the immediate north of the project site and comprises about

0.34 acre of coast live oak woodland, when using the 10% canopy cover methodology of the Guide. The understory of this woodland consists primarily of non-native species and the habitat may be described as moderately degraded as a consequence of the past and current disturbances. The most northerly coast live oak tree (*Quercus agrifolia*) occurring on the project site may qualify as being a component of the off-site oak woodland habitat to the north, when using the 10% canopy cover methodology of the Guide.

5.6 Wildlife Movement/Habitat Linkage

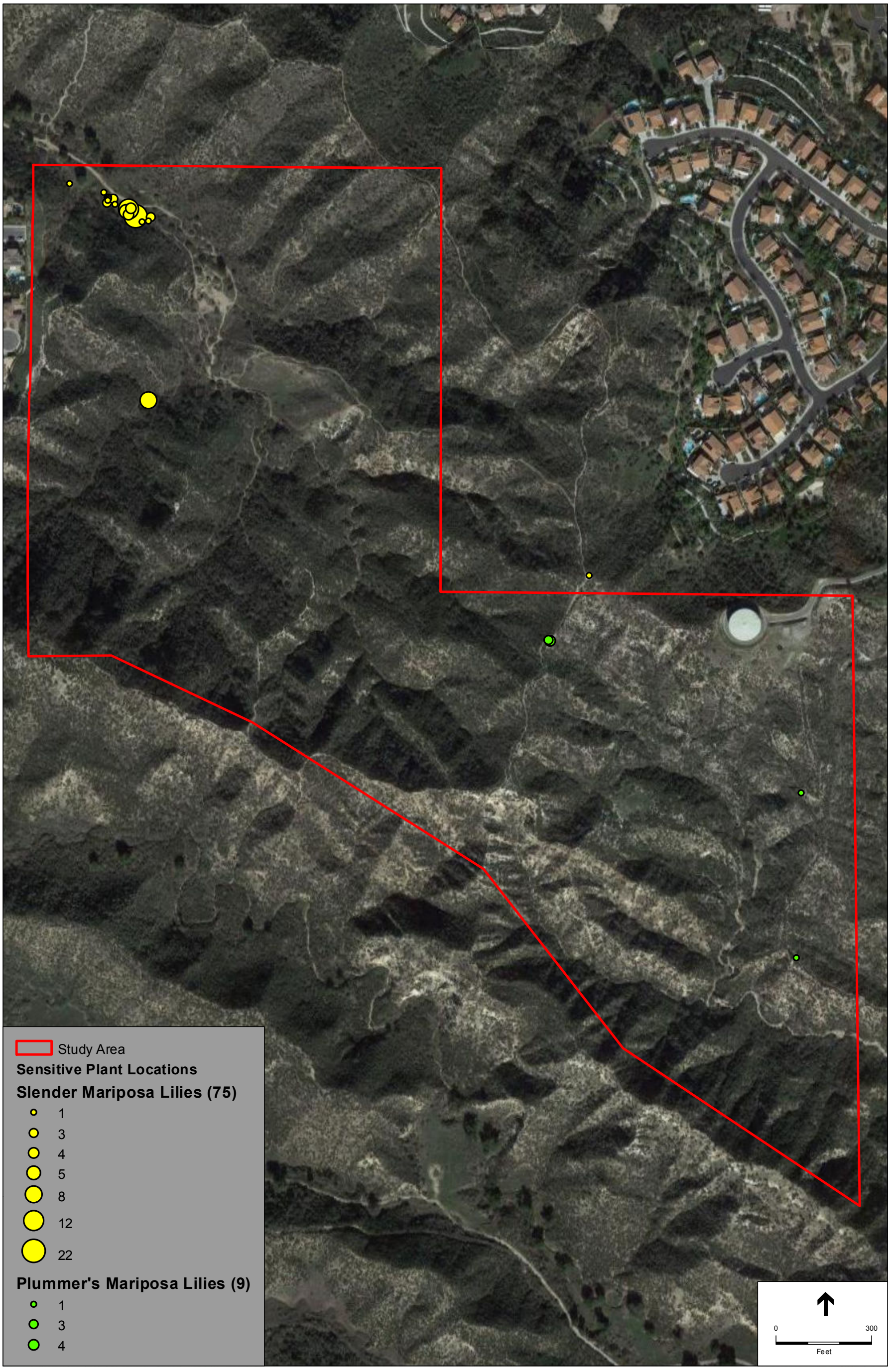
The analysis of wildlife movement corridors/habitat linkage associated with the project site and its immediate vicinity is based on information compiled from the literature and analysis of aerial photographs and topographic maps. The relationship of the project site to large open space areas in the immediate vicinity was also evaluated in terms of connectivity and habitat linkages (refer to **Figure 10**, *Wildlife Movement/Habitat Linkage*). Relative to corridor issues, the discussions in this report are intended to focus on wildlife movement associated with the project and the immediate vicinity.

5.6.1 Overview

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated “islands” of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic material (MacArthur and Wilson, 1967; Soulé, 1987; Harris and Gallagher, 1989; Bennet, 1990). Corridors effectively act as links between different populations of a species.

A group of smaller populations (termed “demes”) linked together via a system of corridors is termed a “metapopulation.” The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population’s genetic variability is generally associated with an increase in a population’s health.

Corridors mitigate the effects of habitat fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs (Noss, 1983; Fahrig and Merriam, 1985; Simberloff and Cox, 1987).



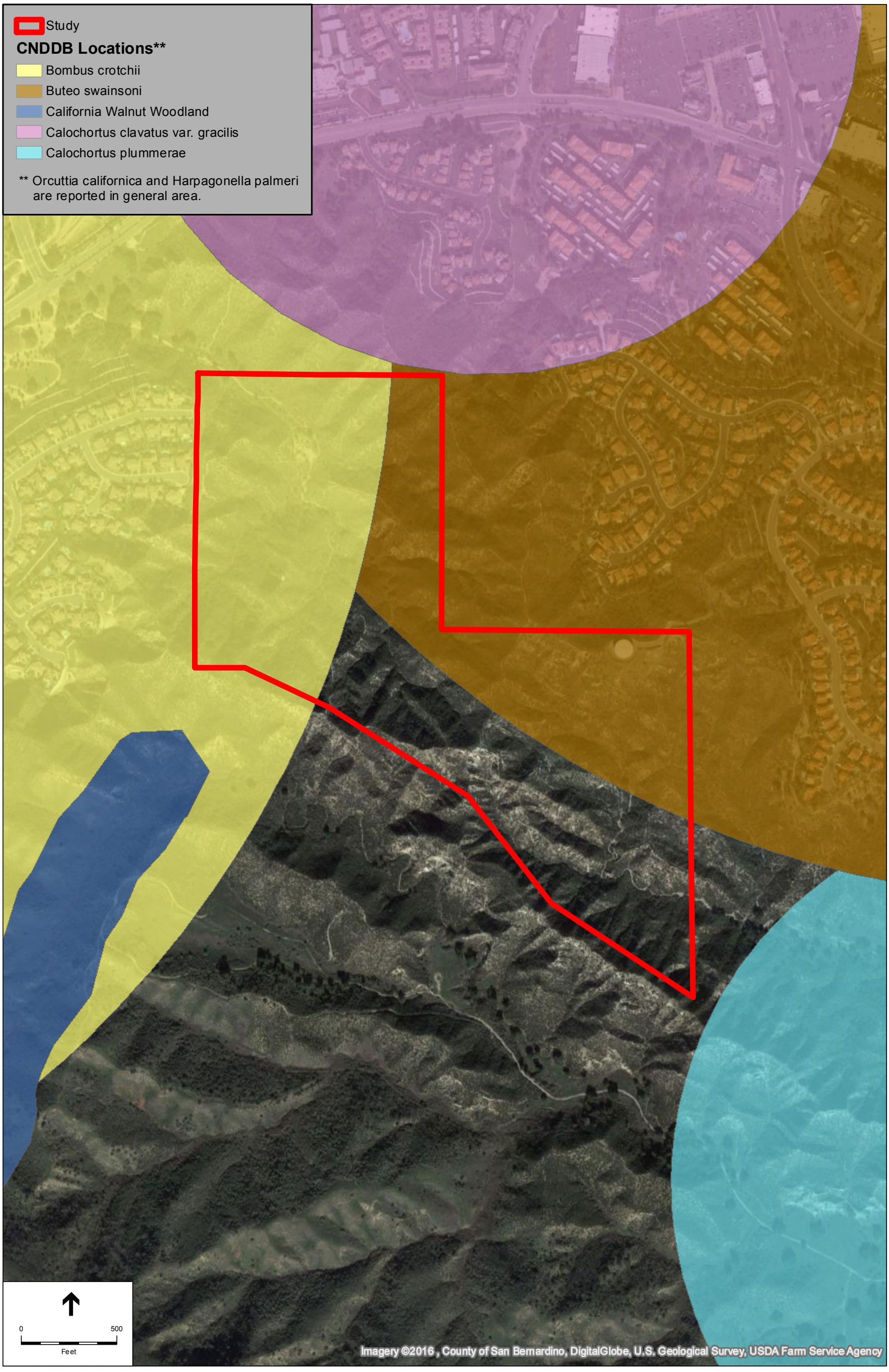
SOURCE: Google Maps, 2015; ESA PCR 2016.

Canyon View Estates

Figure 8

Sensitive Plant Species Location

ESA PCR



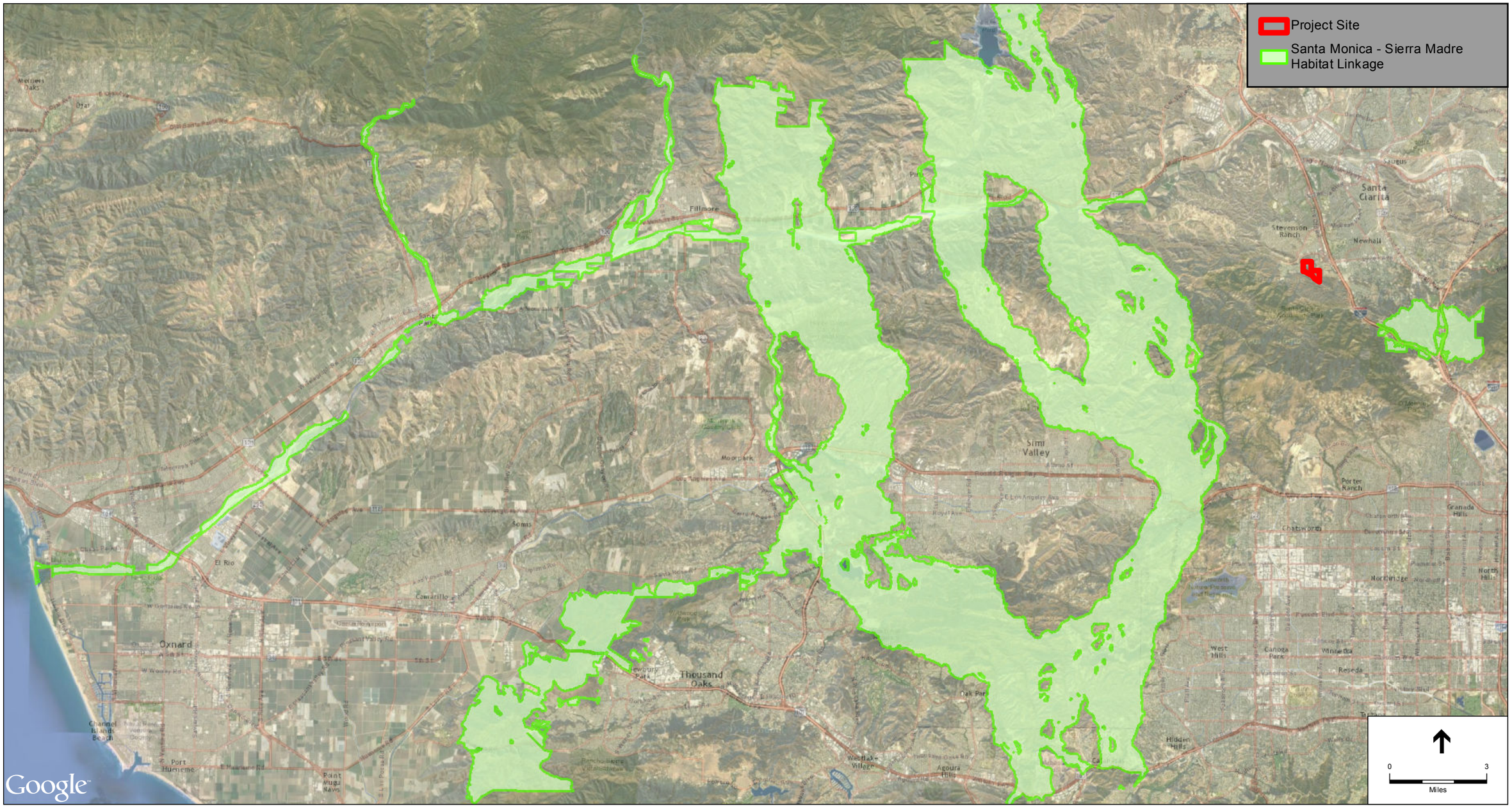
SOURCE: Google Maps, 2015.

Canyon View Estates

Figure 9

CNDDB Sensitive Species

ESA PCR



SOURCE: Google Maps, 2015.

Canyon View Estates

Figure 10

Wildlife Movement / Habitat Linkage

ESA PCR

This page intentionally left blank

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and, (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," and "wildlife crossing" to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

Travel Route: A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

Wildlife Corridor: A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.

Wildlife Crossing: A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles.

It is important to note that, within a large open space area in which there are few or no man-made or naturally occurring physical constraints to wildlife movement, wildlife corridors as defined above may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife will use these "local" routes while searching for food, water, shelter, and mates, and will not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-sized mammals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles such as roads and highways, remaining landscape features or travel routes that connect the larger open space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (man-made noise, lighting) that would generally hinder wildlife movement.

5.6.2 Wildlife Movement/Habitat Linkage within the Project Site

Movement on a smaller or "local" scale occurs throughout the surrounding vicinity as well as the project site. Data gathered from biological surveys indicate that the study area contains habitat that supports a variety of species of invertebrates, amphibians, reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the project site and immediate vicinity. Populations of animals such as insects, amphibians, reptiles, small mammals, and a few bird species may find all their resource requirements without moving far or outside of the project site at all. Occasionally, individuals expanding their home range or dispersing from their parental range will attempt to move outside of the project site. Additionally, the ridgelines, canyons, and dirt roads within the study area all facilitate wildlife movement in the form of travel routes (as defined above).

Although the northern portion of the project site is surrounded by urban development, movement on a larger, "regional" scale is likely to occur to and from the project site from the southern portion of the project site where the area is undeveloped within the Santa Susana Mountains. The Santa Susana Mountains connect the Simi Hills on the south with the San Gabriel Mountains to the east. The dense natural habitat associated with the majority of the area to the south of the project site provides concealment and an abundance of prey.

The project site does not fall within any of the potential linkage areas described in the South Coast Missing Linkages (SCML; South Coast Wildlands, 2008). The project site is located adjacent to the Santa Monica-Sierra Madre Connection, which is one of the few coastal to inland connections remaining in the south coast ecoregion. The Santa Monica-Sierra Madre Connection stretches from Santa Monica Mountains at the coast to the peaks of the Santa Susana Mountains and the Sierra Madre Ranges of Los Padres National Forest. From the project site, faunal movement to the Santa Monica-Sierra Madre Connection would be possible via the Santa Susana Mountains. Avoidance of the SCML linkage may still effect wildlife movement; however, the project would not directly interfere with movement between core habitat areas of the Santa Monica, Santa Susana, and San Gabriel Mountains, which would likely remain open. The effects of a project at this location on the chain of conserved open space parcels lying to the south of the project site that connect a portion of the SCML linkage of the Santa Susana Mountains northwest through the Newhall Ranch Specific Plan open space areas would be incremental to that caused by other residential development in the region. However, a clustered project design would not cause a barrier to movement but would cause interference of existing movement patterns.

Project development should be clustered adjacent to existing development (e.g., Pico Canyon Road to the north and nearby residences to the west) and should minimize impacts to the southern portion of the study area. Pico Canyon Road and residential development to the west, north and east currently impede local wildlife movement and additional development would further compound this impediment. Clustering adjacent to existing development, while maintaining a native vegetation passage, would allow local wildlife to continue any existing north-south movement. Thus, wildlife movement through the study area after project implementation would still continue current east-west movement but potentially constrain north-south movement. A clustered project design is not expected to substantially alter movement through the study area especially in the southern portion of the project site.

The study area has the potential to support both raptor and songbird nests due to the presence of trees, shrubs, and ground cover. Nesting activity typically occurs from February 15 to August 31 for songbirds and January 15 to August 31 for raptors. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (16 U.S.C. 703 *et seq*.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. The removal of vegetation during the breeding season must be in compliance with the MBTA and Fish and Game Code regulations.

CHAPTER 6
Characteristics of the Surrounding Area

6.1 Existing Land Uses of Surrounding Area

The land uses surrounding the project site is a mixture of undeveloped areas to the south and developed residential areas primarily to the north. South of the project site is undeveloped land including the Santa Clarita Woodlands Park. Approximately 1,100 feet north of the northern boundary of the project site is Pico Canyon Road. Adjacent to the northwest corner of the project site is Pico Canyon Park. To the west and east of the project site is residential development. Santa Clarita Woodlands Park is located south of the project site (refer to **Figure 11**, *Surrounding Land Use Map*).

6.2 Open Space Reserves

The Santa Clarita Woodlands Park is a 4,000-acre public parkland that is a critical component of a cross-mountain range wildlife habitat corridor that links the Santa Monica Mountains to the Angeles and Los Padres National Forests. Santa Clarita Woodlands Park contains unique combinations of tree species, perennial streams, spring wildflower displays, and abundant wildlife. Mentryville is the open space reserve to the project site. Mentryville is a state historic landmark operated by the Santa Monica Mountains Conservancy. Mentryville is located approximately 1.70 miles to the west of the project site, south of Pico Canyon Road. The City of Santa Clarita Open Space District recently purchased more than 100 acres for open space immediately to the south of the project site.

6.3 Habitat Conservation Plans of Surrounding Area

The project site is not within a Habitat Conservation Plan (HCP) area. The closest HCP to the project site is the Town of Apple Valley Multi-Species Conservation Plan located approximately 25 miles northeast of the project site.

6.4 Vegetation Communities of Surrounding Area

The information pertaining to the vegetation communities of the surrounding area adjacent to the project site was derived from the National Park Service Vegetation Inventory (NPS, 2016), which extracts vegetation data from photographic signatures. The surrounding vegetation is similar and contiguous to the chaparral communities mapped on the project site, mainly Bush Mallow Scrub, Mule fat Thickets, and communities with thickleaf yerba santa as a floral component. In addition, coastal sage scrub communities dominated by California buckwheat, coyote brush, and California sagebrush are found in the surrounding area. A degraded coast live oak woodland occurs

immediately north of the project site, to which the most northerly coast live oak tree on-site may be considered as a component, contributing approximately 0.14 acre of oak woodland habitat. The surrounding area also includes vegetated urban communities.

6.5 Overall Biological Value of the Area

The natural vegetation occurring on the project site and the surrounding areas provide a high biological value, providing valuable nesting, foraging, roosting and nursery resources for a diversity of plants and wildlife. The biological value of the project site is exemplified in the inclusion of the southern portion of the project site within the Santa Susana Mountains/Simi Hills SEA.

The project site also contains several special-status plant species, including slender mariposa lily and Plummer's mariposa lily, in addition to several other native plants and habitats, such as Bush Mallow Scrub, Bush Mallow Chamise Chaparral, Chamise Chaparral, Chamise Chaparral/Hoary Leaf Ceanothus Chaparral, and Mule Fat Thickets, which provide an abundance of biological value.

This page intentionally left blank

SOURCE: Google Maps, 2015.

Canyon View Estates
Figure 11
Surrounding Land Use Map

ESA PCR

This page intentionally left blank

CHAPTER 7
Regulatory Framework

7.1 Federal Sensitive Resource Protection and Classifications

7.1.1 Federal Endangered Species Act (FESA)

The FESA of 1973 defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, unless properly permitted, it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action which could affect a federally listed plant or animal species, the property owner and agency are required to consult with USFWS pursuant to Section 7 of the ESA if there is a federal nexus, or pursuant to Section 10 of the ESA. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

All references to Federally-protected species in this BRA include the most current published status or candidate category to which each species has been assigned by USFWS. For purposes of this assessment the following acronyms are used for Federal status species, as applicable:

FE Federally-listed as Endangered

FT Federally-listed as Threatened

FPE Federally proposed for listing as Endangered

FPT Federally proposed for listing as Threatened

FPD Federally proposed for delisting

FC Federal candidate species (former C1 species)

Some of the USFWS offices maintain a database of listed species within their jurisdiction, for example the Sacramento[1] and Carlsbad[2] offices. The Carlsbad USFWS Office jurisdiction

1 http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-overview.htm
2 http://www.fws.gov/carlsbad/SpeciesStatusList/CFWO_Species_Status_List.htm

encompasses the counties of Los Angeles, Orange, Riverside, San Bernardino, Imperial, and San Diego.

7.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, Federal permits issued for activities that potentially impact migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

7.1.3 Federal Clean Water Act, Section 404

The federal Water Pollution Control Act Amendments of 1972 (33 United States Code [USC] 1251–1376), as amended by the Water Quality Act of 1987, and better known as the federal Clean Water Act (CWA), is the major federal legislation governing water quality. The purpose of the federal CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Discharges into waters of the U. S. are regulated under CWA Section 404. Waters of the U.S include: 1) all navigable waters (including all waters subject to the ebb and flow of the tide); 2) all interstate waters and wetlands; 3) all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, or natural ponds; 4) all impoundments of waters mentioned above; 5) all tributaries to waters mentioned above; 6) the territorial seas; and 7) all wetlands adjacent to waters mentioned above.

Section 404 provides for issuance of dredge/fill permits by the USACE. Permits typically include conditions to minimize impacts on water quality. Common conditions include: 1) USACE review and approval of sediment quality analysis before dredging, 2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring, and 3) requiring compensation for loss of waters of the U. S. The areas of the project site that occur below mean higher high water (MHHW) would be subject to regulation under Section 404.

7.1.4 Federal Clean Water Act, Section 401

The mission of the RWQCB is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the state's waters, recognizing local differences in climate, topography, geology, and hydrology. The California RWQCB is responsible for implementing compliance not only with state codes such as the California Water Code, but also some federal acts such as Section 401 of the CWA. Section 401 of the CWA requires that any applicant for a federal permit for activities that involve a discharge to waters of the state shall provide the federal permitting agency with a certification from the state in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the

federal CWA.[3] As such, before the USACE will issue a CWA Section 404 permit, applicants must apply for and receive a Section 401 water quality certification (WQC) from the RWQCB. The RWQCB regulates "discharging waste, or proposing to discharge waste, within any region that could affect "waters of the state" (Water Code § 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act which defines RWQCB jurisdictional "waters of the state" as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code § 13050 (e)).

With the exception of isolated waters and wetlands, most discharges of fill to waters of the state are also subject to a CWA Section 404 permit. If a CWA Section 404 permit is not required for the project, the RWQCB may still require issuance of Waste Discharge Requirements (WDR) under the Porter-Cologne Water Quality Control Act. The RWQCB may regulate isolated waters that are not under jurisdiction of the USACE through issuance of WDR's. However, projects that obtain a Section 401 WQC are simultaneously enrolled in a statewide general WDR.

Processing of Section 401 WQC's generally requires submittal of 1) a construction storm water pollution prevention plan (SWPPP), 2) a final water quality technical report that demonstrates that post-construction storm water Best Management Practices (BMPs) comply with the local design standards for municipal storm drain permits (MS4 permits) implemented by the State Water Resources Control Board effective January 1, 2011, and 3) a conceptual Habitat Mitigation and Monitoring Plan (HMMP) to compensate for permanent impacts to RWQCB waters, if any. In addition to submittal of a draft CEQA document, a WQC application typically requires a discussion of avoidance and minimization of impacts to RWQCB jurisdictional resources, and efforts to protect beneficial uses as defined by the local RWQCB basin plan for the project. The RWQCB cannot issue a Section 401 WQC until the project CEQA document is certified by the lead agency.

7.2 State of California Sensitive Resource Protection and Classifications

7.2.1 California Endangered Species Act (CESA)

California's Endangered Species Act (CESA) defines an endangered species as:

> *a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.*

The State defines a threatened species as:

> *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 the special protection and management efforts required by this chapter. Any animal*

[3] 33 USC 1341 *(a) (1).*

> *determined by the commission as rare on or before January 1, 1985 is a threatened species.*

Candidate species are defined as:

> *a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.*

Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Wildlife Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened or endangered species by stating:

> *no person shall import into this State, export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.*

Under the CESA, "take" is defined as, "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Wildlife Code, Sections 4700 and 3511, respectively.

California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Informally listed species are not protected per se, but warrant consideration in the preparation of biological assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest areas.

For the purposes of this BRA, the following acronyms are used for State status species, as applicable:

SE State-listed as Endangered

ST State-listed as Threatened

SR State-listed as Rare

SCE State candidate for listing as Endangered

SCT State candidate for listing as Threatened

SFP State Fully Protected

SSC California Species of Special Concern

7.2.2 Protection of Birds

Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order 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." Activities that result in the abandonment of an active bird of prey nest may also be considered in violation of this code. In addition, California Fish and Game Code, Section 3511 prohibits the taking of any bird listed as fully protected, and California Fish and Game Code, Section 3515 states that is it unlawful to take any non-game migratory bird protected under the MBTA.

7.2.3 State of California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) who proposes a project that 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 to notify the CDFW of the proposed project. In the course of this notification process, the CDFW will review the proposed project as it affects streambed habitats within the project area. The CDFW may then place conditions in the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

7.2.4 California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (CNPS 2012). The list serves as the candidate list for listing as Threatened and Endangered by CDFW. CNPS has developed six categories of rarity, of which Ranks 1A, 1B, 2A, and 2B are particularly considered sensitive:

Rank 1A Presumed Extirpated in California and either Rare or Extinct elsewhere.

Rank 1B Plants Rare, Threatened, or Endangered in California and elsewhere.

Rank 2A Presumed Extirpated in California, but more common elsewhere.

Rank 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere.

Rank 3 Plants about which we need more information – a review list.

Rank 4 Plants of limited distribution – a watch list.

The CNPS recently added "threat ranks" which parallel the ranks used by the CNDDB. These ranks are added as a decimal code after the CNPS List (e.g., Rank 1B.1). The threat codes are as follows:

.1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);

.2 Fairly endangered in California (20-80% occurrences threatened);

.3 Not very endangered in California (<20% of occurrences threatened or no current threats known).

Sensitive species that occur or potentially could occur within the project site are based on one or more of the following: (1) the direct observation of the species within the project site during any field surveys; (2) a record reported in the CNDDB; and (3) the project site is within known distribution of a species and contains appropriate habitat.

7.3 Local Sensitive Resource Protection and Classifications

7.3.1 County of Los Angeles Oak Tree Ordinance

The County of Los Angeles Oak Tree Ordinance (Ord. 88-0157 § 2, 1988: Ord. 82-0168 § 2 (part), 1982) as outlined in Chapter 22.56.2050 *et seq*. of the Los Angeles County Code (referred to in this report as "the Oak Tree Ordinance") protects all tree species of the oak genus that measure 25 inches or more in circumference (eight inches in diameter) for trees with a single trunk and 38 inches of combined circumference (12 inches in diameter) for any two trunks of trees with multiple stems, as measured at breast height, or 4.5 feet above natural grade (diameter at breast height, or "DBH"). The Oak Tree Ordinance also covers the "protected zone" of the oak trees, which extends to five feet outside of the dripline of the oak tree, or 15 feet from the trunk(s) of a tree, whichever distance is greater. Additionally, the Oak Tree Ordinance protects all tree species of the oak genus (*Quercus*) that fall within 200-feet of project construction. A total of seven (7) oak trees were identified within the project site during a 2005 oak tree survey conducted by Envicom (Envicom, 2005).[4] ESA performed an updated oak tree survey for the oak trees within the impact area (northern half of the project site) and found four coast live oak trees and one hybrid scrub oak[5] to be of ordinance size.

7.3.2 County of Los Angeles General Plan Significant Ecological Areas Ordinance

The project site is located within the Santa Susana Mountains/Simi Hills SEA. SEAs are areas that the County has designated due to their irreplaceable biological resources. These areas contain resources that are considered rare or unique, critical to the maintenance of wildlife species, are relatively undisturbed habitats, and/or serve as habitat or corridors that promote species movement. Part of the SEA process is the review of a proposed project by SEATAC. This committee is made up of people specializing in various areas of biology. Unless the project is exempt from permit requirements, activities within the SEA require application and approval of a Conditional Use Permit prior to the issuance of any building or grading permits. An SEA Conditional Use Permit is required only when the property contains an area that, on or after January 1, 2012, was designated in the General Plan as an SEA, and if the proposed project includes development on the portion of that property that is located in the SEA.

4 One of the seven trees did not survive the 2003 fires. In addition, at the time of the report, only five of the remaining six coast live oak trees were large enough to meet the size requirement for the Oak Tree Ordinance.

5 The scrub oak has been identified as a hybrid of *Quercus john-tuckeri* by Andrew Sanders at the University of California at Riverside. The other parent is speculated to be *Q. berberidifolia*.

CHAPTER 8
Conclusion

8.1 Summary of Biological Constraints

The following discussion outlines the biological resources which could potentially pose constraints to future development (e.g., the development of residences and any associated driveways, roads, infrastructure, fuel modification, and/or landscaping) within the project site. These constraints are depicted in Figures 3, Potentially Jurisdictional Features; 5, Relationship to SEA; 8, Special-Status Plant Species Locations; and the separately prepared oak tree report.

8.1.1 County of Los Angeles Oak Tree Ordinance

A total of seven coast live oak trees were identified on the project site in 2005, of which six are remaining post the 2003 fires. Four coast live oak trees and one hybrid scrub oak are located in the northern portion of the project site where development is proposed. A formal oak tree survey was separately conducted by ESA and found that all four coast live oak trees will be avoided along the edge of the development area but the one hybrid scrub oak occurs within the grading footprint. An oak tree permit will be processed in accordance with the County's Oak Tree Ordinance. Replacement trees are usually planted at a ratio of 2:1.

8.1.2 Jurisdictional Drainage Courses

A preliminary jurisdictional determination identified potentially jurisdictional features on the project site as documented on Figure 3. Any development on-site, including fuel modification impacts, should try to avoid or minimize impacts to the potentially jurisdictional features, and concentrate development within areas that exhibit disturbance. If avoidance and/or minimization is not feasible and it is determined that impacts to jurisdictional features will occur as a result of the proposed project, the appropriate permits will be obtained from the regulatory agencies (e.g., 404 permit from the USACE, 401 permit from the RWQCB, and Streambed Alteration Agreement from the CDFW) and mitigation will be required at a minimum 1:1 mitigation ratio.

8.1.3 Special-Status Plant Species

The project site supports two special-status plant species, Plummer's mariposa lily (CNPS 4) and slender mariposa lily (CNPS 1B.2). If these species cannot be avoided in the construction of the project, mitigation may be required, at a minimum of 1:1 ratio for the impacted CNPS 4 species and at 2:1 ratio for the impacted CNPS 1 (or 2) species.

8.1.4 Project Impacts to SEA

The Santa Susana Mountains/Simi Hills SEA is designated in the southern portion of the project site. The intent of project proponent is to avoid all impacts within the SEA by confining development in the northern portion of the project site outside of the SEA and where past disturbance is greater.

8.1.5 Sensitive Plant Communities

The project site supports Thickleaf Yerba Santa Scrub/Red Brome Semi-natural Stands, a State Rank of S3 in an undisturbed condition and therefore potentially considered a sensitive community. Although the thickleaf yerba santa component within this community appears to comprise up to 50% relative cover, the non-native grass species within the understory on the project site contribute roughly an equal amount of cover, reducing the overall biological value of the community. If the plant community cannot be avoided in the construction of the project, mitigation may be required, recommended at no greater than 1:1 ratio because of the disturbed condition of the on-site habitat.

CHAPTER 9
References

American Ornithologists' Union. 1998. *The American Ornithologists' Union Checklist of North American Birds*. 7th Edition. American Ornithologists' Union, Washington, D.C. June.

Baldwin, B. G., Editor. 2012. *The Jepson Manual: Vascular Plants of California*. Second Edition. University of California Press, Berkeley, California Barbour, Michael G., Keeler-Wolf, Todd, and Schoenherr, Allan A. 2007. Terrestrial Vegetation of California Third Edition. University of California Press.

Bennett, A. F. 1990. *Habitat Corridors and the Conservation of Small Mammals in a Fragmented Forest Environment*. Landscape Ecol. 4:109-122.

California Herps. 2016. *A Guide to the Amphibians and Reptiles of California*. Available online (http://www.californiaherps.com).

California Native Plant Society (CNPS). 2016. Inventory of Rare and Endangered Plants of California. California Native Plant Society. Available online (http://cnps.web.aplus.net /cgi-bin/inv/inventory.cgi). Accessed September 8, 2016.

CDFW (California Department of Fish and Wildlife). 2016. California Natural Diversity Database (available by subscription) and Rarefind. CDFW: Sacramento, California. Accessed September 8, 2016.

CDFW. 2010. *List of Vegetation Alliances and Associations*. The Vegetation Classification and Mapping Program. Wildlife & Habitat Data Analysis Branch. September 2010.

CDFW. 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. State of California, California Natural Resources Agency. November 24, 2009.

CDFW. 2000. *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities*. State of California, The Resources Agency. December 9, 1983 revised May 8, 2000.

Clarke, O.F. 2007. *Flora of the Santa Ana River and Environs with References to World Botany*.

Envicom. 2006. *Figure IV.C-3, On-Site Jurisdictional Habitats. Unpublished Casad Project (Tract 52905) Screencheck Draft EIR.* Prepared for Oakridge Homes, LLC. January 27, 2006.

Envicom. 2005. *Oak Tree Report, Cascade Project Tract 52905.* Prepared for Oakridge Homes, LLC. March 7, 2005.

Fahrig, L. and G. Merriam. 1985. *Habitat Patch Connectivity and Population Survival*. Ecology. 66:1762-1768.

Harris, L. D. and P. B. Gallagher. 1989. *New Initiatives for Wildlife Conservation: The Need for Movement Corridors*. Pages 11-34 in G. Mackintosh, ed. Preserving Communities and Corridors. Defenders of Wildlife. Washington D.C. 96 pp.

Jameson, Jr., E. W., and H. J. Peeters. 1988. *California Mammals*. Berkeley: University of California Press.

MacArthur, R. M. and E. O. Wilson. 1967. *The Theory of Island Biogeography*. Princeton University Press: Princeton, New Jersey.

Munz, P. A. 1974. *A Flora of Southern California*. Berkeley: University of California Press.

Noss, R. F. 1983. *A Regional Landscape Approach to Maintain Diversity*. BioScience. 33:700-706.

NPS (National Park Service). 2016. *Vegetation Inventory Map Viewer*. Available online (http://science.nature.nps.gov/im/inventory/veg/mapviewer/mapviewer.html).

NRCS (Natural Resources Conservation Service). 2016. *Web Soil Survey*. Available online (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx). Accessed February 23, 2016.

PCR Services Corporation. 2000. *Biological Resources Assessment of the Proposed Santa Susana Mountains/Simi Hills Significant Ecological Area*. November 2000.

Sawyer, John O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. Second Edition. Sacramento: California Native Plant Society.

Simberloff, D. and J. Cox. 1987. *Consequences and Costs of Conservation Corridors*. Conserv.Biol. 1:63-71.

Soulé, M. E. 1987. *Viable Populations for Conservation*. Sinaur Associates Inc., Publishers, Sunderland, Massachusetts.

South Coast Wildlands. 2008. *South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion*. South Coast Wildlands, Idyllwild, CA. www.scwildlands.org. March 2008.

Stebbins, R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*. Third Edition. Boston: Houghton-Mifflin.

USFWS (U.S. Fish and Wildlife Service). 2016a. *Species Occurrence Data*. Provided by USFWS.

USFWS. 2016b. *Critical Habitat Mapping*. GIS files provided by USFWS.

USFWS. 2000. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. United States Fish and Wildlife Service. January 2000.

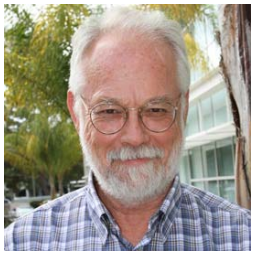
USGS (United States Geological Survey). 2016a. The National Geologic Map Database, Map View. Available online (http://ngmdb.usgs.gov/maps/mapview/). U.S. Department of the Interior. Washington, DC.

USGS. 2016b. California Geologic Map Data. Available online (http://mrdata.usgs.gov/geology/state/state.php?state=CA). U.S. Department of the Interior. Washington, DC.

USGS. 1953. Oat Mountain, Newhall. California topographic quadrangle maps. Photorevised 1988.

Appendix A
Biologist Resumes

ESA



Daryl Koutnik, PhD

Principal, Biological & Regulatory Compliance

EDUCATION

Ph.D., Botany, University of California, Davis

M.S., Botany, University of California, Davis

B.A., Mathematics and Biology, California State University, Northridge

25 YEARS EXPERIENCE

Daryl Koutnik has more than 25 years of experience managing and conducting biological resources field studies for environmental compliance and planning. Fourteen years of which he worked in and managed the environmental review section of the Los Angeles County Department of Regional Planning.

Dr. Koutnik has directed, managed, and performed biological resources inventories, special-status species surveys and identification, environmental impact assessments, biological constraints analyses, plant and wildlife studies, habitat restoration plans, and mitigation and monitoring plans for a wide variety of private and public sector clients. These analyses have been related to residential, commercial, industrial, infrastructure, and educational developments.

He is an expert in the application of federal and State Endangered Species Acts, the California Environmental Quality Act (CEQA), and other regulations relevant to biological resources, as well as processing and acquisition of Coastal Development Permits within the California Coastal Zone.

Relevant Experience

Selected Project Experience – Biology. Dr. Koutnik has managed, reviewed, or prepared hundreds of biological reports. These have been prepared in compliance and/or coordination with CEQA, NEPA, USACE, USFWS, CDFW, and RWQCB. These projects include the Jurisdictional Delineation for the 28,000-acre Tejon Mountain Village Project to address 800 acres of waters and drainages; the biological assessment for the 5,130-acre Travertine Point Specific Plan in Riverside and Imperial counties; and the Hidden Creeks Estates EIR biological resources section for the City of Los Angeles.

Selected Project Experience – EIRs. Dr. Koutnik is experienced in leading the preparation of EIRs throughout Southern California. His projects include the 544-unit Shores Apartment residential development in Marina del Rey, the 216-unit Millennium-Playa Del Mar Apartments in Playa Vista, the 500-acre Transit Mix Surface Mining project in Soledad Canyon, and the 3,600-unit Northlake Residential development in Castaic.

Expert Testimony. Daryl testified before the California Coastal Commission (CCC) on the determination of environmentally sensitive habitat areas within the Coastal Zone of the Santa Monica Mountains for unincorporated Los Angeles County. He also provided expert testimony before the CCC on the revegetation of streamside banks within the California Coastal Zone.

Ezekiel Cooley

Senior Biologist / Regulatory Scientist

EDUCATION

B.S., Natural Resources, (Emphasis: Wildlife), Central Michigan University, Mt. Pleasant, Michigan

17 YEARS EXPERIENCE

PERMITS / CERTIFICATIONS

Qualified California Rapid Assessment Method (CRAM) Practitioner, 2012

CDFW Scientific Collecting Permit #SCP-013181

CDFW Rare, Threatened, and Endangered Plant Voucher Collecting Permit #2081(a)-10-08-V

SPECIALIZED TRAINING

Desert Tortoise Council, Desert Tortoise Field Techniques Workshop, 2014

AEP, CEQA Essentials Workshop, 2014

Wetland Delineation Course, Wetland Training Institute, 2011

Learning California Bird Sounds, Sea & Sage Audubon Society, 2010

Section 404 and State Permits: Regulating Activities Affecting Wetlands, Streams, and Other Waters, UCLA Extension, 2008

PROFESSIONAL AFFILIATIONS

Desert Tortoise Council

Ezekiel Cooley is a biologist with 17 years of hands on experience. He has performed field work involving wildlife and habitat evaluations, avian and invertebrate trapping, jurisdictional delineations, habitat management plans, construction/mitigation monitoring, and map creation. Zeke specializes in floral and faunal surveys and performs Geographic Information Systems (GIS) impact analysis, cartographic production, Global Positioning System (GPS) data collection, and data input and manipulation to map project-related sensitive plants and animals, and vegetation communities. He has also prepared regulatory permitting packages, compliance packages, and coordinated with regulatory agencies and clients.

Relevant Experience

Wildlife Surveys. Zeke has performed burrowing owl surveys for residential development projects in Riverside, Orange, San Bernardino and Los Angeles counties, and participated in a passive relocation project for burrowing owls. He also conducted a regional alluvial fan sage scrub survey that spanned throughout Southern California. Zeke has performed oak tree surveys in the Santa Monica Mountains and Newhall, as well as native tree surveys in Santa Barbara, and Orange counties. He has performed raptor and nesting bird surveys, least Bell's vireo surveys, and assisted with multiple fairy shrimp, and multiple coastal California gnatcatcher, and western spadefoot toad surveys throughout Southern California. In related work, Zeke performed brown-headed cowbird trapping and control on sensitive habitat areas for the coastal California gnatcatcher and least Bell's vireo. He has monitored riparian habitat and nesting birds for multiple construction and restoration projects in Riverside and Los Angeles counties. He has also participated in an osprey relocation program for the Michigan Department of Natural Resources and hazed and trapped migratory birds at the Detroit Metropolitan Airport.

Geographic Information Systems. Zeke has experience digitizing vegetation maps, jurisdictional delineations, and tree surveys throughout Southern California, as well as running impact analyses for development projects. Additionally, he served as a GIS Technician for Central Michigan University where he created multiple thematic maps and information layers for graduate students. Zeke also managed the Avian Influenza database at the U.S. Department of Agriculture (USDA) Animal Plant Health Inspection Service – Wildlife Services (APHIS) and mapped sample locations with ArcGIS.

Wetland Ecology. Zeke has assisted with jurisdictional waters and wetland delineations in San Bernardino, Riverside, Kern, Los Angeles, San Diego, and Orange counties. He completed the Significant Nexus/Jurisdictional determination section of Jurisdictional Delineations, including digitizing drainages, jurisdictional areas, watersheds, and the significant nexus for the associated drainage.

Amy Lee

Biologist

EDUCATION

B.A., Environmental Studies, University of California, Santa Barbara

B.A., History of Art and Architecture with an Emphasis on the Environment, University of California, Santa Barbara

7 YEARS EXPERIENCE

PERMITS / CERTIFICATIONS

CDFW Scientific Collecting Permit #SCP-013181

CDFW Rare, Threatened, and Endangered Plant Voucher Collecting Permit #2081(a)-15-046-V

PROFESSIONAL AFFILIATIONS

Desert Tortoise Council

Sea and Sage Audubon Society

Amy Lee has over seven years of experience as a consulting biologist. She is experienced in managing, performing, and assisting with biological services including wildlife and plant surveys, mitigation and restoration planning and monitoring, and assisting in regulatory permitting throughout Southern California.

Relevant Experience

Wildlife Surveys. Amy has performed pre-construction nesting bird surveys for numerous projects in Riverside, Orange, San Bernardino, San Diego, and Los Angeles counties. She has also provided the subsequent nest monitoring during project construction. Amy has conducted presence/absence surveys for least Bell's vireo, desert tortoise, and burrowing owl and assisted in those for California gnatcatcher.

Mitigation and Restoration Monitoring. Amy has overseen the implementation, multi-year monitoring, and sign-off of several habitat mitigation and restoration sites. She regularly performs qualitative and quantitative data collection, preparation of progress and annual reports, and coordination with clients and landscape contractors. Amy is proactive in her management approach and poised to recognize and thwart project challenges in their infancy. Her proactive solutions and diligent monitoring have been so integral to project success that she has been actively involved in resource agency approval and release of dozens of mitigation sites. Amy has performed mitigation monitoring for the cities of Lake Forest, Murrieta, West Covina, and Goleta, as well as the Las Virgenes and Murrieta Valley unified school districts, and countless residential developments throughout Southern California.

Regulatory Compliance and Environmental Documentation. Amy has prepared CEQA-level biological resources assessments and sensitive floral and faunal surveys to support technical reports. Document preparation tasks have included CNDDB database searches, impact analyses, and MSHCP consistency analyses. Her regulatory permitting experience includes assisting project teams with California Department of Fish and Wildlife Section 1602 Streambed Alteration Agreements, Army Corps of Engineers Section 404 permits, Regional Water Quality Control Board 401 permits.

Botany. Amy has performed botanical surveys which have included the identification of plants and plant communities, sensitive plant surveys, tree surveys, and vegetation mapping in Los Angeles, Orange, Riverside, San Diego, and San Bernardino counties.

Gregory C. Ainsworth

Director, Senior Managing Biologist

EDUCATION

M.C.R.P., Environmental Planning, California Polytechnic State University, San Luis Obispo

B.S., Environmental Horticulture Science, California Polytechnic State University, San Luis Obispo

11 YEARS EXPERIENCE

CERTIFICATIONS/ REGISTRATION

International Certified Arborist (Cert# WE 7473A)

California Department of Fish and Game Scientific Collection Permit

Southwestern Willow Flycatcher Section 10(a)(1)(A) Recovery Permit (Pending)

Certified wetland delineator, Wetland Delineation & Management (ACOE, #2128), 2003

SPECIALIZED TRAINING

Desert Tortoise Workshop, The Desert Tortoise Council, 2006

Snowy plover nesting and roosting surveys, Los Angeles Audubon, 2004–present

Mohave Ground Squirrel Workshop, The Wildlife Society, 2005

California Native Plant Society Plant Survey Techniques, 2004 and 2006

Gregory Ainsworth directs the Southern California Biological Resources Group. Greg has provided biological resource consulting on numerous community development projects, solar and wind development, infrastructure, and water agency projects. He is a certified arborist and wetland delineator and an approved biologist on several city and county approved lists. Greg technical strengths include biological resource and fatal flaw assessments, rare plant surveys and vegetation mapping, special-status wildlife surveys, avian risk assessments, native plant restoration, wetland delineations, and permitting. He has worked on numerous projects involving CEQA and the Endangered Species Act and has extensive knowledge of habitats found between the California deserts and the coastal shoreline.

Relevant Experience

Grossmont High School Tree Survey, San Diego, CA. *Arborist*. Greg conducted a tree survey for a proposed high school alternative location for the Grossmont Union High School District. The locations of oak trees and mature riparian woodland species located on the alternative high school site were assessed and mapped by Greg, our certified arborist. A subsequent tree report was prepared and all attribute data (e.g., tree number, size, health, balance) collected were provided in the report. The report identified the number of trees that were removed, encroached, and preserved by the proposed alternative high school location.

Helix Water District, El Monte Groundwater Recharge, Mining and Reclamation Project EIR, San Diego, CA. *Arborist*. Greg conducted a tree survey and identify trees that should be removed based on poor health conditions and which should be preserved based on overall value and aesthetics. He collected specific information during the assessment such as: type of species, trunk diameter, estimated height and radius of canopy, physical conditional and overall health rating. A subsequent tree report was prepared and all attribute data collected were provided in the report. The report identified the number of trees that were removed, encroached, and preserved.

Western Wind Energy Corporation, Aero Windswept Lower Resource Energy Project Biota Surveys, Tehachapi, CA. *Project Manager.* Greg is the project director and daily manager of all data collection, reporting, and permitting service being provided on this project. Biota surveys have included rare plant surveys, wildlife surveys including burrowing owl, desert tortoise, Mojave ground squirrel, bats, bird use counts, and raptor surveys (in accordance with CEC Guidelines for Reducing Impacts to Birds and Bats from Wind Development). Greg is the primary author of the biological technical report and avian risk assessment being prepared to support the project's EIR.

San Diego Gas and Electric, Manzanita Wind Generation Project, San Diego County, CA. *Project Manager of Biological Resources*. Greg is managing all focused surveys for the proposed gen-tie line, substation locations, switchyard, and other ancillary features. Focused studies under the management of Greg include: avian studies (bird use counts, small bird counts and migration counts), Quino checkerspot butterfly and Hermes copper butterfly, rare plant surveys, wetland delineation, vegetation mapping, and biological constraints analysis. Greg will be managing the preparation of the PEA for the proposed project and participating in Section 7 consultation related to potential impacts to the Golden Eagle.

Sunshine Canyon Landfill Arborist Support and Revegetation Plan, Los Angeles, CA. *Biological Resources Task Leader.* Greg is conducting annual monitoring for several mitigation requirements that include City of Los Angeles oak tree mitigation, PM10 tree buffer mitigation, big cone Douglas fir mitigation, coastal sage scrub restoration, coastal sage scrub and chaparral revegetation required by the Air Quality Control Management District. Greg prepared a restoration and revegetation plan introducing native coastal sage scrub and chaparral vegetation between the landfill and adjacent neighborhoods. Greg is monitoring the implementation of the plan for the next five years. Greg is providing on-call services that include: preconstruction bird surveys, protected tree surveys for proposed grading activities, and identification of suitable native revegetation sites throughout the landfill property.

City of Calabasas, On-Call Services, Calabasas, CA. *Arborist.* Greg is the City of Calabasas' on-call arborist. His services include providing oak tree damage assessments for the Code Enforcement Department, review of oak tree reports prepared by city-approved arborists, and preparation of oak tree damage and appraisal reports.

Department of Water Resources, Piru Creek Special Use Permit Renewal, Los Angeles and Ventura Counties, CA. *Senior Biologist.* Greg is providing environmental compliance and permitting for the Department of Water Resources (DWR) for the renewal of a Special Use Permit to operate and maintain access to an existing stream gauging station to measure flows into Pyramid Lake. The permit would also include necessary improvements at the gauging station. Greg conducted a habitat assessment for potentially occurring special-status species, a focused plant survey, protocol survey for the federally endangered arroyo toad, wetland delineation, and wildlife migration corridor analysis. Greg managed the preparation of a Biological Assessment and Environment Assessment in accordance with the Endangered Species Act and the NEPA, respectively. Greg will be engaging in Section 7 consultation with the USFWS for potential impacts on the arroyo toad.

Department of Water Resources, Templin HWY Culvert Repair, Los Angeles County, CA. *Senior Biologist.* ESA is providing environmental compliance and permitting for the Department of Water Resources for their installation of a new culvert below Templin Highway. The proposed culvert is within a blue line stream that falls under the jurisdiction of the USACE, RWQCB and the CDFG. Greg conducted a wetland delineation for Waters of the U.S. and State jurisdictional

waters and is preparing permits in accordance to the Clean Water Act (401/404) and California Department of Fish and Game Code (1602), Streambed Alteration Agreement.

Metropolitan Water District City of La Verne Tree Ordinance Compliance and Breeding Bird Surveys, La Verne, CA. *Senior Biologist.* Greg conducted a significant tree survey, prepared a tree report, and submitted a tree permit to the City of La Verne for the Metropolitan Water District Weymouth Treatment Plan Main Line Project. Greg conducted a preconstruction breeding bird and nest survey for the proposed project and identified appropriate buffers to avoid impacts to breeding birds.

California Public Utilities Commission, SCE Presidential Substation EIR, Ventura County, CA. *Biological Resources Task Leader.* Greg is co-managing the preparation of an EIR for the SCE Presidential Substation Project located in Ventura County. The proposed project would involve construction of a substation and associated subtransmission source lines. The proposed subtransmission line route passes through a rural residential area and is being met with organized opposition. ESA has implemented a rigorous public and agency outreach program to engage the stakeholders in the CEQA process. Key biological resource issues to be addressed in the EIR include state- and federally-endangered fairy shrimp species, the federally threatened coastal California gnatcatcher, and the federally-listed plant: Lyon's pentachaeta.

California Department of Water Resources (DWR), Arroyo Toad Monitoring Plan, Los Padres National Forest, CA. *Biological Technician and Technical Analyst.* Greg is providing three consecutive years' of biological monitoring and technical analysis for DWR's monitoring program for the federally endangered arroyo toad and other special-status species including California red-legged frog, southwestern pond turtle, and two-striped garter snake in middle Piru Creek in the Los Padres National Forest. Greg managed the implementation of the U.S. Fish and Wildlife Service-approved monitoring plan, and is conducting field surveys to monitor arroyo toad reproductive success, habitat quality, and hydrological features on middle Piru Creek.

Private Wind Developers, Los Angeles County, CA. *Biological Resources Task Leader.* Greg has managed and conducted several confidential biological resource fatal flaw assessments for potential wind development projects in the Mojave desert and rural areas of Los Angeles County. Tasks included reconnaissance-level biological field assessments, identification of adjacent land uses and zoning, and preparation of technical biological constraints reports. Greg has provided consultation to wind developers on the local, state, and federal permitting requirements associated with biological resources and wind development.

Red Mountain Ridge Wind Project, San Diego, CA. *Biological Resources Task Leader.* Greg managed a 30-day fatal flaw analysis for biological, cultural, and paleo resources on a proposed 7.5 sqaure mile wind development project known as the Red Mountain Ridge Wind Project, which includes approximately 8 miles of transmission line. The results of the fatal flaw assessment was used to develop a

detailed scope and budget for conducting baseline biology and cultural assessments that will support the preparation of an EIR by Kern County's CEQA consultant for a zone change, Wind Energy overlay, CUP for the solar portion, and a variance.

Bureau of Land Management, Ocotillo Wind Farm Express, El Centro, CA.
Biological Resources Task Leader. The Ocotillo Express Wind Energy Project is a 15,000-acre, 561 megawatt wind energy project including a substation, transmission facilities, administration facilities, operations and maintenance facilities, and temporary construction lay-down areas. The project would be located almost entirely on BLM administered lands in the Imperial Valley, approximately 5 miles west of Ocotillo, Imperial County, California. Greg is serving as a third-party biological consultant under the direction of the BLM El Centro Field Office. Specifically, Greg and ESA are contracted to assist with implementation of the BLM NEPA process including review and support for the project's Plan of Development, Notice of Intent, formal scoping meetings, Plan Amendment to the BLM California Desert Conservation Area Plan, EIS/EIR, required technical studies, Notice of Availability, and ultimately the Record of Decision. Greg is providing field verification to the BLM on data collection efforts being conducted by the applicants biological consultants.

Solar Millennium Blythe and Palen Solar Power Projects, Blythe, CA.
Biological Resources Task Leader. The Blythe Solar Power Project will be a concentrated STE generating facility with two adjacent, independent, and identical solar plants of 250 MW nominal capacity each for a total capacity of 500 MW nominal. The project site is located approximately two miles north of Interstate 10 and eight miles west of the City of Blythe in an unincorporated area of Riverside County. Greg served as a third-party biological consultant under the direction of the BLM Palm Springs Field Office. Greg assisted with implementation of the BLM NEPA process including review and support for the project's Plan of Development, Notice of Intent, formal scoping meetings, Plan Amendment to the BLM California Desert Conservation Area Plan, EIS/EIR, required technical studies, Notice of Availability, and ultimately the Record of Decision. Greg provided field verification to the BLM on data collection efforts being conducted by the applicants biological consultants.

Desert Sunlight Solar Project BLM Support Services, Desert Center, CA.
Biological Resources Task Leader. The Desert Sunlight Solar project will be a solar PV energy generating facility with a total capacity of 550 MW. The project is proposed to be located on federal lands managed by the BLM approximately six miles north of the community of Desert Center, in Riverside County. Greg is serving as a third-party biological consultant under the direction of the BLM Palm Springs Field Office. Specifically, Greg and ESA are contracted to assist with implementation of the BLM NEPA process including review and support for the project's Plan of Development, Notice of Intent, formal scoping meetings, Plan Amendment to the BLM California Desert Conservation Area Plan, EIS/EIR, required technical studies, Notice of Availability, and ultimately the Record of Decision. Greg is providing field verification to the BLM on data collection efforts being conducted by the applicants biological consultants.

NextEra Genesis Solar Energy Project, BLM Support Services, Palm Springs, CA. *Senior Biologist.* Greg and ESA provided regulatory review for the California South Coast BLM for the Genesis Solar project application. Greg's role in this project included review of the biological resources technical reports that accompanied the permit applications. He determined appropriate mitigation strategies in consultation with project managers to help facilitate compliance with the Endangered Species Act and BLM Wildlife Management Areas.

Sun Peak Chuckwalla and Superstition Solar, Riverside County, CA. *Biological Resources Task Leader.* The Chuckwalla Solar I project is a 200 megawatt photovoltaic power plant located in Riverside County. All components of the proposed facility would be located on public lands managed by the BLM, under the jurisdiction of the Palm Springs Field Office. Specifically, Greg and ESA are contracted to assist with implementation of the BLM NEPA process including review and support for the project's Plan of Development, Notice of Intent, formal scoping meetings, Plan Amendment to the BLM California Desert Conservation Area Plan, EIS/EIR, required technical studies, Notice of Availability, and ultimately the Record of Decision. Greg is providing field verification to the BLM on data collection efforts being conducted by the applicants biological consultants.

Hollywood Heights Biological Resource Assessment, Los Angeles, CA. *Project Manager*. Greg prepared a biological resource assessment for a proposed residential development in the Hollywood Heights area of Los Angeles County. Following a literature and database review of the project area, Greg prepared a technical biological assessment report documenting the methods and results of the database and field assessment and provided mitigation measures and recommendations, where applicable, to reduce potential impacts to biological resources to levels of less than significant (per CEQA thresholds).

Department of Water Resources, East Branch Enlargement Project, Los Angeles and San Bernardino Counties, CA. *Senior Biologist.* Greg conducted habitat assessments for special-status plant and animal species in proposed construction areas, as well as, presence/absence surveys for burrowing owls. He is currently conducting a floristic inventory and rare plant survey within the Department's easement areas. ESA has conducted technical studies to complete the EIR and has begun negotiating permit requirements and restoration planning with resource agencies including the USACE, RWQCB, and USFWS.

Las Virgenes Municipal Water District, April Road Reservoir Environmental Constraints Analysis, Agoura Hills, CA. *Senior Biologist.* Greg is preparing a Biological Constraints Analysis for the proposed April Road Recycled Water Reservoir Site for the Las Virgenes Municipal Water District. The purpose of the assessment is to identify fatal flaws of the site and to characterize key biological resource hurdles. His analysis includes an assessment of potential incompatibilities with Los Angeles County's Sensitive Ecological Areas, impacts to wildlife migration corridors and sensitive plants and wildlife, and potential mitigation options. Greg prepared a draft oak tree appraisal to assessment the potential cost of impacting approximately 200 coast live oak trees and conducted a rare plant survey of the proposed project site.

County of Los Angeles Department of Public Works (LADPW), Sorensen Community Park Phase III MND, Los Angeles, CA. *Senior Biologist.* Greg prepared the biological resource section of the EIR/EA for the LADPW for Phase III of the Stephen Sorensen County Park Project. Greg conducted and managed special-status wildlife surveys including protocol-level surveys for burrowing owl (*Athene cunicularia*) and southern grasshopper mouse (*Onychomys torridus Ramona*), terrestrial mammal trapping and relocation, and implementing an employee education and awareness training.

Orange County Sanitation District, Newport Trunk Sewer Biological Mitigation Monitoring and Reporting Program, Newport, CA. *Senior Biologist.* Greg provided construction monitoring efforts for sensitive biological resources in the area of the Santa Ana River Marsh. Greg assisted in the demarcation of boundaries for construction through the marsh area and conducted breeding surveys for the federally and state listed Belding's savannah sparrow. He also provided training for the construction workers to ensure they are aware of their responsibilities with regard to protecting sensitive species and habitats in the area.

Irvine Ranch Water District (IRWD), Baker Regional Water Treatment Plant MND. Irvine, CA. *Senior Biologist.* Greg prepared the biological resource section of this Initial Study and MND for the IRWD Baker Regional Water Treatment Plant project. The goal of the proposed project is to increase water supply reliability in southern Orange County by creating redundancy of treatment system capacity and distribution infrastructure for potable water in the event of facility outages due to routine maintenance or unforeseen emergencies. Greg conducted a rare plant survey, habitat assessment for potentially occurring special-status species, mapped plant communities and sensitive habitats, and assessment potential mitigation options.

City of San Juan Capistrano, Terminal Reservoir MND, San Juan Capistrano, CA. *Senior Biologist.* Greg conducted a biological resource assessment, floristic inventory and rare plat survey, and prepared the biological resource section of the MND.

Robert Sweet

Biologist

EDUCATION

B.S., Environmental Science and Resource Management, California State University, Channel Islands

6 YEARS EXPERIENCE

PERMITS AND CERTIFICATIONS

Collecting Permit for State-Designated Endangered, Threatened and Rare Plants (2081(a)-12-29-V)

Californiia Fish and Wildlife Scientific Collecting Permit (SC - 11807)

SPECIALIZED TRAINING

California Native Plant Society Rare Plant Surveys Workshop, 2012

Blunt-Nosed Leopard Lizard Identification Workshop, 2009. Level 1 Surveyor (additional 10 survey days with a Level II surveyor)

Desert Tortoise Surveying, Monitoring, and Handling Workshop, 2009

PROFESSIONAL AFFILIATIONS

California Native Plant Society Member

Robert (Robbie) has variety of experience in habitat assessments, ecology of wildlife, plants and vegetation communities. He conducts surveys in a variety of locations throughout California that contain diverse habitats. These projects have included focused rare plant surveys in the Coachella Valley, coastal southern California, and northern California. He has conducted surveys for a diverse range of wildlife, documented the results in a variety of technical documents, and conducted monitoring on both small and large projects. His wildlife experience has been related to avian and reptile species, including least tern, western snowy plover, burrowing owl, blunt-nosed leopard lizard, and giant garter snake.

Relevant Experience

Department of Water Resources On-Call Environmental Services for Upgrades to the California Aqueduct East Branch, San Bernardino and Riverside Counties, CA. *Biologist.* The East Branch Extension (EBX) Phase II involves constructing a pipeline across the Santa Ana River and excavating 1.8 million cubic yards of material to create a new storage reservoir. ESA is managing environmental services for the EBX including preparation of an EIR, agency consultation, and conducting biological and cultural surveys to support permit mitigation requirements. ESA prepared an EIR with DWR staff that analyzed several pipeline alignments across the Santa Ana River. Robbie conducted biological surveys of the proposed alignments sufficient to support the impact analysis. ESA has developed a construction monitoring plan in coordination with DWR staff to implement permit and EIR measures and is monitoring construction.

California Department of Water Resources, Perris Dam Remediation Project, Riverside County, CA. *Biologist.* Robbie assisted in the preparation of an EIR for the project that included the drawdown of Perris Reservoir, excavation of over 2 million cubic yards of soil, and the construction of a new stability berm. Impacts included temporary and permanent impacts to least Bell's vireo habitat along the reservoir shoreline and at the base of the dam. ESA is conducting biological surveys and preparing permit applications for coverage through the Western Riverside County MSHCP.

Los Angeles County Department of Regional Planning, Biological Constraints Analysis (SEATAC), Los Angeles County, CA. *Biologist.* Mr. Sweet conducted a biological assessment including focused rare plant surveys and breeding bird surveys to characterize a project site located partly within a Significant Ecological Area (SEA). SEA's are parcels located within the county of Los Angeles, determined by the Department of Regional Planning (DRP) to be ecologically important. Following surveys, a BCA (Biological Constraints Analysis) was drafted for submission to the Significant Ecological Area Technical Advisory Committee (SEATAC) board for review.

Los Angeles Department of Water Resources, Arroyo Toad Surveys, Los Angeles County, CA. *Biologist.* The Department of Water Resources (DWR) manages hydrological output between the Lake Pyramid and Lake Piru reservoirs, which historically has introduced pressures on the federally listed Arroyo toad populations. Based on this knowledge, output of water is currently regulated in an effort to reduce impacts to the species during periods of increased sensitivity (Breeding). As part of a five year monitoring plan established for the toads, ESA conducted surveys throughout the breeding season in order to determined long term reproductive success. Following surveys, the collected data is analyzed and compiled into an annual report for submission to DWR and pertinent agencies.

Metropolitan Water District, Environmental Compliance and Biological Monitoring, La Verne, CA. *Environmental Inspector and Biologist.* The Metropolitan Water District is currently in the process of upgrading a water treatment plant located in Los Angeles County. ESA has been contracted to conduct routine monitoring of the active construction site to ensure that all guidelines outlined in the project Storm Water Pollution Prevention Plan (SWPPP) are followed. In addition, breeding bird surveys are conducted on an as-needed basis to ensure that nesting birds are not impacted by construction activities.

First Solar Burrowing Owl and Breeding Bird Surveys, Luna County, NM. *Biologist.* Robbie conducted protocol burrowing owl surveys and breeding bird surveys of a proposed photovoltaic solar site on state land in Luna County, New Mexico. During surveys, an active Swainson's hawk nest was observed and guidelines were established through coordination with the client to protect the resource during proposed construction activities. Following the completion of surveys, a report of the findings was drafted and submitted to the client and the New Mexico State Land Office.

Los Angeles Department of Water and Power, Avian Point Counts, Kern County, CA. *Biologist.* ESA was contracted by the Los Angeles Department of Water and Power (LADWP) to study presence of avian species within an active wind farm located in the Tehachapi Mountains. In an effort to determine the risk of avian collisions with current and proposed wind turbines, routine point counts are being conducted over a five year period. All species observed and their proximity to existing and proposed turbines is recorded and entered into a database. All data will ultimately be analyzed and compiled into a report at the conclusion of the study period.

Las Virgenes Municipal Water District, Habitat Restoration Monitoring, Los Angeles County, CA. *Principal Biologist.* In 2011, As a result of facilitating replacement of check valves along an established ROW, The Las Virgenes Municipal Water District (LVMWD) impacted native coastal sage scrub and riparian habitat. Per recommendations from the California Department of Fish and Wildlife (CDFW) and the Santa Monica Mountain Restoration Trust (MRT), the LVMWD facilitated a restoration of disturbed areas along the ROW. ESA was contracted to monitor the restoration over a five year period. Annual quadrat sampling of the restored area is currently being conducted to determined quantitative success of the restoration. Success criteria will be determined based on the overall percentage of native and non-native species density. Reports

documenting progress are required each year to monitor success of the restoration.

Los Angeles Department of Water and Power, Least Bell's Vireo and Southwestern Willow Flycatcher Surveys, Los Angeles County, CA. *Biologist.* Robbie conducted protocol least Bell's vireo surveys of a willow/cottonwood riparian corridor within a Los Angeles Department of Water Resources (LADWP) property. Concurrently, Mr. Sweet shadowed a permitted biologist during surveys for the Southwestern willow flycatcher. Reports documenting the presence of both species onsite will NWDbe drafted and submitted to the pertinent agencies.

City of Claremont, Western Burrowing Owl Survey and Biological Assessment, Los Angeles County, CA. *Biologist.* Mr. Sweet conducted a biological assessment and concurrent Western burrowing owl survey at a property located in Los Angeles County in order to reveal any potential constraints associated with future site development. Following surveys, Mr. Sweet drafted a technical report outlining survey methods and results which was submitted to the client for review.

PG&E, Rare Plant Surveys, Sonoma County, CA. *Biologist.* Robbie conducted rare plant surveys along two segments of an existing electrical transmission line totaling over 15 miles long. Two sets of surveys were conducted for each segment in April, May and June of 2012. While surveying, multiple occurrences of the Western dog violet; host plant for the federally listed Myrtle's silverspot butterfly were observed along both segments. Upon completion of surveys, a report was drafted for both segments outlining avoidance measures and recommendations to the client.

Nextera Rare Plant Survey and Protocol Western Burrowing Owl Survey (Phase II Burrow Survey), Riverside County, CA. *Biologist*. As part of the decommissioning of multiple wind turbine towers, Robbie conducted protocol owl and rare plants surveys within the access routes and direct impact areas of the project site. While conducting surveys, multiple individuals, thought to be Coachella Valley milk-vetch were observed throughout the project vicinity. All individuals were flagged and recorded with a hand-held GPS unit. Although the plants were not flowering or fruiting, comparison to a local reference population resulted in designating all individuals as the listed species.

BP Pre-Project Due Diligence and Construction Monitoring, Santa Barbara County, CA. *Principal Field Biologist*. Mr. Sweet conducted a preliminary project site characterization was conducted in order to establish guidelines for proposed environmental drilling activities regarding potential impact to biological resources. During soil boring procedures onsite, construction was monitored to ensure minimized impact to native coastal sage scrub vegetation. In addition, a small population of Southern tarplant (List 1B.1) onsite was delineated to be avoided and was also monitored during drilling activities**.**

Nextera Monitoring of Artificial Western Burrowing Owl Burrows, Riverside County, CA. *Biologist.* As part of a burrowing owl mitigation plan, Mr. Sweet assisted in temporarily closing active burrows located within proposed project

footprint and replacing them with artificial burrows within the general project vicinity. A total of 33 artificial burrows were continuously monitored (over 40 total monitoring hours) throughout the duration of project activities to determine the presence/absence of burrowing owls and other wildlife. While monitoring, numerous owls were observed utilizing the artificial burrows.

Confidential Client Protocol Western Burrowing Owl Survey (Phase III Breeding Survey), Calexico, CA. *Biologist.* Mr. Sweet participated in the second round of breeding surveys for a proposed solar project in Calexico. Surveys involved the recording of new suitable burrows as well as checking on previously recorded burrows. All owl individuals, pellets, whitewash, tracks and other sign was observed and recorded with a GPS unit.

Liberty Energy Protocol Western Burrowing Owl Survey (Phase II Burrow Survey), Lost Hills, CA. *Biologist.* Mr. Sweet conducted a Phase II burrow survey for the expansion of an active mulching facility to determine suitability for owls to occur onsite. In addition to protocol surveys, cameras and diatomatious earth were utilized to verify positive owl activity within the vicinity. Survey activities resulted in the video capture of a burrowing owl utilizing the project site as foraging territory. Mitigation measures and recommendations for proposed construction activities were subsequently provided to the client.

Kern County, Roads Blunt-Nosed Leopard Lizard (BNLL) protocol level surveys, Kern County, CA. *Biologist.* Robbie accompanied a Level II surveyor while conducting surveys along Midway Road near Taft. Mr. Sweet participated in six of the 12 adult surveys during the breeding season in order to determine presence/absence of the species. During surveys, multiple antelope ground squirrels were observed throughout the project area. A known reference population of BNLL within five miles of the project site was surveyed twice prior to conducting protocol surveys where two adult BNLL were observed.

Trans Canada, MBTA Breeding Bird Surveys, MT. *GPS Tech.* Mr. Sweet provided GPS support for wetland/water body delineation and Migratory Bird Treaty Act surveys along a proposed pipeline right-of-way. Duties included the mapping and characterizing of features using a 2008 Trimble Geo XT equipped with a mapping utility designed by AECOM programmers. Due to the fact that construction on the project had begun during avian surveys, many of the surveys conducted doubled as pre-construction as well as clearance. Communication with surveyors and pipeline construction crews occurred throughout the project.

PG&E, Biologist and Environmental Inspector, Gridley, CA. *Construction monitor*. Robbie monitored the replacement of a two mile segment of a natural gas pipeline in the Sacramento valley. Construction activities occurred within the known range of the state and federally threatened giant garter snake. Mitigation measures were established and implemented throughout the duration of the project to avoid impact to said species.

Geokinetics Construction Monitoring, Colusa County, CA. *Lead Field Biologist.* Robbie lead biological field crews in the monitoring of seismic exploratory activities. All drilling activities occurred in known range of the giant garter snake as well as a suite of other sensitive species. In addition, Mr. Sweet conducted

breeding bird surveys prior to commencement of construction activities to ensure nesting birds were not impacted. During monitoring activities, multiple Western pond turtles were observed along creeks traversing the project site. The project proponent was notified of the observation and impact to the resources was avoided.

California Department of Fish and Wildlife (CDFW), Western snowy plover and California least tern breeding surveys, Ormond beach and Point Mugu Naval Base, CA. *Volunteer.* Mr. Sweet assisted survey crews in conducting meandering pedestrian surveys throughout a section of coastal dune habitat during the 2012 breeding season. Robbie logged over 15 hours surveying the beach under the supervision of a permitted individual. While conducting surveys, multiple adult plovers, chicks and active nests were observed.

Naval Base Ventura County Western snowy plover and California least tern breeding surveys, Point Mugu Naval Base, Ventura County, CA. *Biologist.* Robbie assisted in conducting intensive monitoring of populations of the California least tern and Western snowy plover during the 2007 breeding season. Monitoring included but was not limited to conducting over 33.5 hours of survey transects for active nests and over 150 hours of observing nesting pairs through observation blinds. In addition, Mr. Sweet conducted routine point counts for avian, marine mammal, reptile and amphibian species throughout the base property and assisted in the maintenance of a database.

Appendix B
Floral and Faunal Compendia

ESA

APPENDIX B - FLORAL AND FAUNAL COMPENDIUM

FERNS

Scientific Name	Common Name
Pteridaceae	Maidenhair Fern Family
Pellaea mucronata	bird's foot fern

ANGIOSPERMS (DICOTYLEDONS)

Scientific Name	Common Name
Adoxaceae	Muskroot Family
Sambucus nigra ssp. *caerulea*	blue elderberry
Anacardiaceae	Sumac or Cashew Family
Malosma laurina	laurel sumac
Rhus aromatica	squawbush
Rhus integrifolia	lemonade berry
Rhus ovata	sugar bush
Toxicodendron diversilobum	poison oak
Asclepiadaceae	Milkweed Family
Asclepias fascicularis	narrowleaf milkweed
Asteraceae	Sunflower Family
Acourtia microcephala	sacapellote
Ambrosia acanthicarpa	annual bur ragweed
Artemisia californica	California sagebrush
Aster subulatus	slender aster
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule fat
Brickellia nevinii	Nevin's brickellbush
* *Carduus pycnocephalus*	Italian thistle
* *Centaurea melitensis*	tocalote
* *Centaurea solstitialis*	yellow star-thistle
Cirsium occidentale var. *occidentale*	cobweb thistle
Corethrogyne filaginifolia	cudweed aster
Deinandra fasciculata	fascicled tarplant
Ericameria pinifolia	pinebush
Eriophyllum confertiflorum	golden yarrow
Filago sp.	filago
Helianthus annuus	common sunflower

** non-native*

ANGIOSPERMS (DICOTYLEDONS)

Scientific Name	Common Name
Helianthus gracilentus	slender sunflower
Heterotheca grandiflora	telegraph weed
* *Lactuca serriola*	prickly lettuce
Malacothrix saxatilis	cliff malacothrix
Pseudognaphalium californicum	ladies' tobacco
Rafinesquia californica	California chicory
Stephanomeria exigua	small wirelettuce
Boraginaceae	Borage Family
Amsinckia intermedia	common fiddleneck
Cryptantha sp.	cryptantha
Emmenanthe penduliflora	whispering bells
Eriodictyon crassifolium	thickleaf yerba santa
Eucrypta chrysanthemifolia	common eucrypta
Pectocarya penicillata	winged pectocarya
Phacelia cicutaria	caterpillar phacelia
Brassicaceae	Mustard Family
* *Hirschfeldia incana*	shortpod mustard
Chenopodiaceae	Goosefoot Family
* *Chenopodium murale*	nettle-leaved goosefoot
* *Salsola tragus*	Russian thistle
Cucurbitaceae	Gourd Family
Marah macrocarpus	wild cucumber
Fabaceae	Legume Family
Acmispon glaber	deerweed
Fagaceae	Oak Family
Quercus agrifolia	coast live oak
Quercus berberidifolia	scrub oak
Quercus X john-tuckeri	Tucker's scrub oak
Lamiaceae	Mint Family
Salvia columbariae	chia
Salvia mellifera	black sage
Trichostema lanatum	woolly bluecurls
Malvaceae	Mallow Family
Malacothamnus fasciculatus	bush mallow
Myrtaceae	Myrtle Family
* *Eucalyptus camaldulensis*	red gum eucalyptus
Oleaceae	Olive Family
Fraxinus dipetala	California ash

** non-native*

ANGIOSPERMS (DICOTYLEDONS)

Scientific Name	Common Name
Onagraceae	Evening Primrose Family
Camissonia californica	California suncup
Camissoniopsis micrantha	miniature suncup
Clarkia purpurea	purple clarkia
Clarkia unguiculata	elegant clarkia
Paeoniaceae	Peony Family
Paeonia californica	California peony
Plantaginaceae	Plantain Family
Antirrhinum multiflorum	chaparral snapdragon
Polygonaceae	Buckwheat Family
Chorizanthe staticoides	turkish rugging
Eriogonum fasciculatum	California buckwheat
Rhamnaceae	Buckthorn Family
Ceanothus crassifolius	hoary leaf ceanothus
Rhamnus crocea	spiny redberry
Rosaceae	Rose Family
Adenostoma fasciculatum	chamise
Cercocarpus betuloides	mountain mahogany
Heteromeles arbutifolia	toyon
Prunus ilicifolia	holly-leaved cherry
Solanaceae	Nightshade Family
Solanum douglasii	Douglas' nightshade
Solanum xant	chaparral nightshade
Verbenaceae	Verbain Family
Verbena lasiostachys	western verbena

ANGIOSPERMS (MONOCOTYLEDONS)

Scientific Name	Common Name
Agavaceae	Agave Family
Chlorogalum pomeridianum	soap plant
Hesperoyucca whipplei	chaparral yucca
Liliaceae	Lily Family
Calochortus clavatus var. gracilis	slender mariposa lily
Calochortus plummerae	Plummer's mariposa lily
Dichelostemma capitatum	blue dicks

** non-native*

ANGIOSPERMS (MONOCOTYLEDONS)

	Scientific Name	Common Name
	Poaceae	Grass Family
*	*Avena barbata*	slender wild oat
*	*Bromus diandrus*	ripgut grass
*	*Bromus madritensis* ssp. *rubens*	red brome
	Elymus triticoides	beardless wild rye
*	*Festuca myuros*	rattail fescue
*	*Festuca perennis*	Italian ryegrass
*	*Schismus barbatus*	Mediterranean schismus
	Stipa lepida	foothill needlegrass

** non-native*

APPENDIX B - FLORAL AND FAUNAL COMPENDIUM

REPTILES

Scientific Name	Common Name
Colubridae	**Colubrid snakes**
Lampropeltis getula californiae	California kingsnake - E
Anguidae	Alligator Lizards
Elgaria multicarinata webbi	San Diego alligator lizard
Phrynosomatidae	Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards
Sceloporus occidentalis	western fence lizard
Uta stansburiana	side-blotched lizard

BIRDS

Scientific Name	Common Name
Odontophoridae	Quails
Callipepla californica	California quail
Accipitridae	Hawks
Buteo jamaicensis	red-tailed hawk - E
Cathartidae	New World Vultures
Cathartes aura	turkey vulture
Columbidae	Pigeons and Doves
Zenaida macroura	mourning dove
Cuculidae	Cuckoos and Roadrunners
Geococcyx californianus	greater roadrunner
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Picidae	Woodpeckers
Picoides nuttallii	Nuttall's woodpecker
Tyrannidae	Tyrant Flycatchers
Myiarchus cinerascens	ash-throated flycatcher
Sayornis saya	Say's phoebe
Tyrannus verticalis	western kingbird

E – Expected but not observed

BIRDS

Scientific Name	Common Name
Corvidae	Jays and Crows
Aphelocoma californica	California scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven - E
Hirundinidae	Swallows
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
Polioptilidae	Gnatcatchers
Polioptila melanura	black-tailed gnatcatcher - E
Aegithalidae	Bushtits
Psaltriparus minimus	bushtit
Troglodytidae	Wrens
Thryomanes bewickii	Bewick's wren
Sylviidae	Wrentits
Chamaea fasciata	wrentit
Turdidae	Thrushes
Turdus migratorius	American robin
Mimidae	Thrashers
Toxostoma redivivum	California thrasher
Emberizidae	Emberizine Sparrows and Allies
Melozone crissalis	California towhee
Melospiza melodia	song sparrow
Pipilo maculatus	spotted towhee
Cardinalidae	Buntings, Grosbeaks, and Tanagers
Pheucticus melanocephalus	black-headed grosbeak
Fringillidae	Finches
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
Spinus tristis	American goldfinch

MAMMALS

Scientific Name	Common Name
Cervidae	**Deer**
Odocoileus hemionus	mule deer - E

E – Expected but not observed

Canidae	Canines
Canis latrans	coyote - E
Geomyidae	Pocket Gophers
Thomomys bottae	Botta's pocket gopher - E
Leporidae	Hares and Rabbits
Sylvilagus audubonii sanctidiegi	Audubon’s cottontail -E
Sciuridae	Squirrels and Chipmunks
Spermophilus beecheyi	California ground squirrel -E

** non-native*

Appendix C
Special-Status Plant Species

ESA

APPENDIX C: SPECIAL-STATUS PLANT SPECIES

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
ANGIOSPERMS (DICOTS)							
Asteraceae	Sunflower Family						
Deinandra minthornii	Santa Susana tarplant	Jul.-Nov.	NONE	NONE	1B.2	Chaparral, coastal scrub; typically found growing on sandstone outcrops and crevices or within shrublands. 280-760 meters.	**NOT EXPECTED** Suitable chaparral habitat is present on the project site but no sandstone outcrops are present. The closest known occurrence is approximately 6 miles south in Deer lake Highlands. However, no individuals were observed during the June focused survey.
Centromadia parryi ssp. *australis*	southern tarplant	May-Nov.	None	None	1B.1	Margins of marshes and swamps, valley and foothill grassland (vernally mesic), and vernal pools. 0-425 meters	**NONE** Suitable vernal wetland habitat is not present.
Helianthus inexpectatus	Newhall sunflower	Aug,-Oct.	NONE	NONE	1B.1	Freshwater, seeps; marshes and swamps; riparian woodland. 305 meters.	**NONE** Suitable habitat is not present.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	Aug.-Oct.	None	None	1A	Freshwater marsh, salt marsh. 10-1675 meters.	**NONE** Suitable habitat is not present.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Feb.-Jun.	NONE	NONE	1B.1	Marshes and swamps (coastal salt), playas, vernal pools. 1-1220 meters.	**NONE** Suitable vernal wetland habitat is not present.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Pentachaeta lyonii	Lyon's pentachaeta	Mar.-Aug.	FE	SE	1B.1	Chaparral, valley and foothill grassland, and coastal scrub; typically found between grassland and chaparral habitats. 30-630 meters.	**NONE** Although suitable chaparral and grassland habitats are present on the project site, all occurrences of the species are located near the coast. The closest known occurrence near the project site is in the Upper Las Virgenes Canyon Open Space approximately 15 miles southwest of the project site.
Pseudognaphalium leucocephalum	white rabbit-tobacco	Jul.-Dec.	NONE	NONE	2B.2	sandy, gravelly, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. 0-2100 meters.	**NONE** **SUITABLE SANDY AND GRAVELLY SUBSTRATE IS NOT PRESENT ON THE PROJECT SITE.**
Senecio aphanactis	chaparral ragwort	Jan.-Apr.	None	None	2B.2	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline soil. 15-8000 meters.	**POTENTIAL; NOT OBSERVED** Suitable chaparral habitat is present on the project site. The closest known occurrence is approximately 4 miles northeast in Saugus.
Symphyotrichum greatae	Greata's aster	Jun.-Oct.	None	None	1B.3	Chaparral, cismontane woodland, broadleaved upland forest, lower montane coniferous forest, riparian woodland; often found within mesic canyons. 300-2010 meters.	**NOT EXPECTED** Suitable habitat (chaparral) with canyons is found on the project site. However, the closest known occurrence is approximately 16 miles north in the Cienaga campground**.** However, no individuals were observed during the June focused survey.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Berberidaceae	**Barberry Family**						
Berberis nevinii	Nevin's barberry	Mar.-June	FE	CE	1B.1	Sandy soils in low-gradient washes, alluvial terraces, and canyon bottoms, along gravelly wash margins, or on coarse soils on steep, generally north-facing slopes in alluvial scrub, cismontane (e.g., chamise) chaparral, coastal sage scrub, oak woodland, and/or riparian scrub or woodland. 274-825 meters,	**NOT EXPECTED** Suitable chaparral habitat is present on the project site. The closest known occurrence is approximately 3.5 miles north of the project site in San Francisquito Canyon. however, no individuals were observed during the June focused survey.
Boraginaceae	Borage Family						
Harpagonella palmeri	Palmer's grapplinghook	Mar.-May	NONE	NONE	4.2	Chaparral, coastal scrub, valley and foothill grassland; open grassy areas within shrubland; clay soils. 20-955 meters	**NOT EXPECTED** Suitable chaparral and grassland habitats are present on the project site. The closet known occurrence is approximately 3 miles east in Santa Clarita. However, no individuals were observed during the June focused survey.
Brassicaceae	Mustard Family						
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Jan.-Jul.	None	None	4.3	Chaparral and coastal scrub.	**NOT EXPECTED** Suitable chaparral habitat is present on the project site. The closest known occurrence is approximately 10 miles southeast of the project site. However, no individuals were observed during the June focused survey.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Cactaceae	**Cactus Family**						
Opuntia basilaris var. *brachyclada*	short-joint beavertail	Apr.-Jun. (Aug.)	None	None	1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; found in sandy soil or granitic loam. 425 to 1800 meters.	**NONE** Although chaparral habitat is present on the project site, this species occurs at higher elevations. The closest known occurrence is approximately 8.5 miles northeast of the project site.
Crassulaceae	Stonecrop Family						
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Apr.-Jun.	NONE	NONE	1B.1	Coastal bluff scrub, coastal scrub, and valley and foothill grasslands; rocky slopes or in shallow clay soils over serpentine. 5-450 meters.	**NONE** Suitable coastal scrub and grassland habitats are not present. The closest recorded location is near the Chatsworth Reservoir which is approximately 10 miles southwest of the project site.
Dudleya cymosa ssp. agourensis	Agoura Hills dudleya	May-Jun.	FT	NONE	1B.2	Chaparral, cismontane woodland; rocky, volcanic breccia. 200-500 meters.	**NONE** Suitable chaparral habitat is present on the project site. However, no occurrences near the vicinity of the project site.
Dudleya multicaulis	many-stemmed dudleya	Apr.-Jul.	NONE	NONE	1B.2	Chaparral, coastal scrub, and valley and foothill grassland; often on clay soils. 15-790 meters.	**NONE** This species is not known to occur north of the San Gabriel Mountains. Moreover, this species occurs in coastal locations.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Dudleya parva	Conejo dudleya	May-Jun.	FT	NONE	1B.2	Coastal scrub, valley and foothill grassland; In clay or volcanic soils on rocky slopes and grassy hillsides. 60-450 meters.	**NONE** The project site only has marginally suitable grassland habitat. The closest known occurrence is approximately 15 miles southwest adjacent to the Regan Presidential Library.
Convolvulaceae	Morning-glory Family						
Calystegia peirsonii	Peirson's morning-glory	Apr.-Jun.	None	None	4.2	Chaparral, coastal scrub, chenopod scrub, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; typically found in disturbed, such as along roadsides, or in grassy open areas. 30-1500 meters.	**NOT EXPECTED** Suitable chaparral habitat is present on the project site. The closest known occurrence is less than 0.50 mile southeast from the project site. However, no individuals were observed during the June focused survey.
Fabaceae	Pea Family						
Astragalus brauntonii	Braunton's milk-vetch	Jan.-Aug.	FE	None	1B.1	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; found in burned or disturbed areas in shallow soils on hilltops, saddles, bowls between hills; prefers saline and somewhat alkaline soil (soil specialist). 200-650 meters.	**NONE** Although suitable habitat is present (chaparral), suitable substrate is not present. Closest known occurrence is approximately 11 miles southwest of the project site.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Geraniaceae	Geranium Family						
California macrophylla	round-leaved filaree	Mar.-May	NONE	NONE	1B.1	Cismontane woodland, valley and foothill grassland, clay soils. 15-1200 meters.	**NONE** Marginal grassland habitat is present on the project site, but the project site lacks clay soils.
Juglandaceae	Walnut Family						
Juglans californica[*]	Southern California black walnut	Mar.-Aug.	None	None	4.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland; alluvial. 50-900 meters.	**Not Observed** Suitable chaparral is present on the project site. However, no individuals were observed during the June focused survey.
Lamiaceae	Mint Family						
Lepechinia rossii	Ross' pitcher sage	May-Sept.	None	None	1B.2	Chaparral. Prefers soil derived from fine-grained, reddish sedimentary rock. 305-790 meters.	**None** Although chaparral habitat is present on the project site, species is found mainly in Liebre Mountains (Los Angeles County) and in the Topatopa Mountains (Ventura County).
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	Jun.-Aug.	None	None	1B.3	Chaparral and cismontane woodland; dry slopes. 50-1525 meters.	**None** Although suitable chaparral habitat is present on the project site, the species is known only from Santa Monica, Santa Ynez, and Sierra Madre Mountains.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Malvaceae	**Mallow Family**						
Malacothamnus davidsonii	Davidson's bush-mallow	Jun.-Jan.	None	None	1B.2	Coastal scrub, riparian woodland, chaparral, cismontane woodland; commonly found within sandy washes. 185-855 meters.	**NONE** Chaparral habitat is present on the project site. However, this species is only found on the coastal side of the Santa Monica Mountains.
Polemoniaceae	Phlox Family						
Navarretia fossalis	spreading navarretia	Apr.-Jun.	None	None	1B.1	Coastal sage scrub, wetland-riparian; occurs almost always under natural conditions in wetlands.	**NONE** No suitable wetland habitat present on the project site.
Navarretia ojaiensis	Ojai navarretia	May-Jun.	NONE	NONE	1B.1	Chaparral, coastal scrub, and valley and foothill grassland; openings in shrublands or grasslands. 275-620 meters.	**NOT EXPECTED** Suitable chaparral habitat is present on the project site. However, no individuals were observed during the June focused survey.
Navarretia setiloba	Piute Mountains navarretia	Apr.-Jul	None	None	1B.1	Cismontane woodland; pinyon and juniper woodland; valley and foothill grasslands. Clay or gravelly loam. 285-2100 meters.	**NONE** No occurrence of the species within the vicinity of the project site.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Polygonaceae	Buckwheat Family						
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Apr.-Jul.	FC	FE	1B.1	Coastal scrub (sandy), valley and foothill grassland. 150-1220 meters.	**NOT OBSERVED** Although suitable grassland habitat is found on the project site, the habitat is very marginal. The closest known occurrence is approximately 2.5 miles north of the project site. However no individuals were observed during the June focused survey.
Chorizanthe parryi var. *parryi***	Parry's spineflower	Apr.-Jun.	None	None	1B.1	Openings/clearings in coastal or desert sage scrub, chaparral or interface; dry slopes or flat ground; sandy soils. 275-1220 meters.	**NOT EXPECTED** Suitable chaparral habitat with openings and clearings are present on the project site. However, no individuals were observed during the June focused survey.
Rosaceae	Rose Family						
Dodecahema leptoceras	slender-horned spineflower	Apr.-Jun.	FE	SE	1B.1	Scrub and chaparral in sandy soils and alluvial fans. 200-760 meters.	**NONE** Suitable substrate is not present on the project site. Closest known occurrences for the species is approximately 4 miles east in Santa Clarita.
Horkelia cuneata var. puberula	mesa horkelia	Feb.-Jul. (uncommonly Sep.)	NONE	NONE	1B.1	Chaparral (maritime), cismontane woodland, coastal scrub/sandy or gravelly. 70-810 meters.	**NONE** Suitable substrate is not present on the project site.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Rubiaceae	**Coffee Family**						
Galium grande	San Gabriel bedstraw	Jan.-Jul.	None	None	1B.2	Cismontane woodland, chaparral, broadleafed upland forest, lower montane coniferous forest; grows on rocky slopes within open chaparral oak woodland. 425-1500 meters.	**NONE** Suitable habitat is not present on the project site. Additionally, there are no records of the species within the project site vicinity.
ANGIOSPERMS (MONOCOTS)							
Alliaceae	Onion Family						
Allium howellii var. clokeyi	Mt. Pinos onion	Apr.-Jun.	NONE	NONE	1B.3	Great basin scrub, meadows and seeps (edges), and Pinyon and juniper woodland. 1300-1850 meters.	**NONE** Suitable substrate is not present on the project site. Moreover, project site is outside of preferred elevation range.
Liliaceae	Lily Family						
Calochortus clavatus var. gracilis	slender mariposa lily	Mar.-Jun.	NONE	NONE	1B.2	Chaparral, coastal scrub, valley and foothill grassland; found on the valley floor within shaded canyons typically on grassy slopes. 320-1000 meters.	**OBSERVED** Suitable chaparral habitat with valley floors within canyons on grassy slopes present on project site. Species was observed throughout the project site, mainly in the northern portion of the site.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Calochortus fimbriatus	late-flowered mariposa lily	Jun.-Aug.	None	None	1B.2	Chaparral, cismontane woodland, riparian woodland; grows on serpentine within dry coastal woodland and chaparral habitats. 275-1905 meters.	**NOT EXPECTED** Suitable chaparral habitat is present on the project site. However, no individuals were observed during the June focused survey.
Calochortus plummerae	Plummer's mariposa lily	May-Jul.	None	None	1B.2	Chaparral (openings), cismontane woodland, coastal scrub, valley and foothill grassland, granitic/rocky. 100-1700 meters.	**OBSERVED** Suitable chaparral (openings), coastal scrub, and grassland habitats with rocky soils are present on the project site. Individuals were observed throughout the project site, mainly in the southern portion.
Poaceae	Grass Family						
Hordeum intercedens	vernal barley	Mar.-Jun.	NONE	NONE	3.2	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), and vernal pools; typically found in vernal pools, dry saline streambeds, or alkaline flats. 5-1000 meters.	**NONE** Suitable habitat (vernal pools) is not present on the project site.
Orcuttia californica	California Orcutt grass	Apr.-Aug.	FE	SE	1B.1	Vernal pools. 15-660 meters.	**NONE** Suitable vernal pool habitat is not present on the project site.

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Scientific Name	Common Name	Blooming Period	Federal	State	CNPS	Preferred Habitat	Potential For Occurrence
Ruscaceae	Ruscus Family						
Nolina cismontana	chaparral nolina	May-Jul.	None	None	1B.2	Xeric Diegan sage scrub, chaparral, coastal scrub open chaparral; primarily grows on sandstone and shale, occasionally on gabbro. 140-1275 meters.	**NONE** This species is found in cismontane habitats. The closest known occurrence is approximately 40 miles away near Oak Park.

Key to Species Listing Status Codes

fe	*Federally Endangered*	*se*	*State Listed as Endangered*
ft	*Federally Threatened*	*st*	*State Listed as Threatened*
fc	*Federal Candidate*	*sce*	*State Candidate for Endangered*
fpe	*Federally Proposed as Endangered*	*sct*	*State Candidate for Threatened*
fpt	*Federally Proposed as Threatened*	*sfp*	*State Fully Protected*
fpd	*Federally Proposed for Delisting*	*ssc*	*California Species of Special Concern*

SOURCE: ESA PCR, 2016

NONE = species not expected to occur due to the lack of suitable habitat, or the site's location outside of the species' range; **NOT EXPECTED** = preferred habitat was considered present based on the literature review and observed habitat on the Project site, however no individuals were observed during the focused special-status plant survey; **POTENTIAL** = preferred habitat was considered present based on the literature review and habitat observed on the project site; **OBSERVED** = species was observed on the project site.

*Species does not come up on CNDDB because there is an occurrence but no observations recorded.

Appendix D
Special-Status Wildlife Species

ESA

APPENDIX D: SPECIAL-STATUS WILDLIFE SPECIES

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Crustaceans					
Anostraca	Fairy Shrimp				
Branchinecta lynchi	vernal pool fairy shrimp	FT	NONE	Valley and foothill grassland, vernal pool, wetland.	**NONE** Suitable vernal pool habitat is not present on the project site.
Streptocephalus woottoni	Riverside fairy shrimp	FE	NONE	Endemic to western Riverside, Orange and San Diego Counties in areas of tectonic swales and slump basins in grassland and coastal scrub. Inhabit seasonal pools filled by winter/spring rains. Hatch in warm water later in the season.	**NONE** Suitable vernal pool habitat is not present on the project site.
Arachnids					
Tengellidae	Tengellid Spiders				
Socalchemmis gertschi	Gertsch's socalchemmis spider	None	CDFW Special Animals List	Known only from Brentwood and Topanga Canyon; apparently occurring within oak woodland habitat.	**NONE** This species is known only in two locations in Los Angeles County, Brentwood and Topanga Canyon. Moreover, project site lacks oak woodland habitat.
Insects					
Nymphalidae	Brushfooted Butterflies				
Danaus plexippus	monarch butterfly (wintering sites)	FSS	CDFW Special Animals List	Winter roosts located in wind-protected tree groves (especially eucalyptus and Monterey cypress), with nectar and water sources nearby. Winter Roost sites extend along the coast from	**NONE** There are no suitable wind-protected tree groves suitable for wintering monarch butterflies present on the project site. Project site has few trees of each

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
				northern Mendocino County to Baja California, Mexico.	species (oak and eucalyptus) throughout the entire project site.
Apidae	Bees				
Bombus crotchii	Crotch bumble bee	None	None	Coastal California east to the Sierra-Cascade crest and south into Mexico; prefers to feed nectar from plants in the following genera: Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	**POTENTIAL [LOW]** The potential for this species on the project site is low. Two plants within the plant genera for the nectar from plants the species feeds on, *Eriogonum* and *Clarkia*, are present on the project site.
Fish					
Cyprinidae	Ray-finned Fish				
Catostomus santaanae	Santa Ana sucker	FT	SSC	Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, & algae.	**NONE** There is no suitable habitat present on the project site.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE	SE, FP	Coastal waters or freshwater bodies well connected (or once well connected) to the coasts.	**NONE** There is no suitable habitat (coastal waters or freshwater) present on the project site.
Cyprinidae	Carps and Minnows				
Gila orcutti	arroyo chub	None	SSC	Aquatic and south coast flowing waters; slow water stream sections with mud or sand bottoms; feeds heavily on aquatic vegetation and associated invertebrates.	**NONE** Suitable habitat (perennial water) is not preset on the project site.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Amphibians					
Bufonidae	True Toads				
Anaxyrus californicus	arroyo toad	FE	SSC	Rivers, washes or intermittent streams with sandy banks, willows, cottonwoods and sycamores within valley-foothill, desert riparian and desert wash communities in semi-arid regions; loose gravelly areas of streams in drier parts of range.	**NONE** No suitable habitat in the form of streams with sandy banks on the project site.
Ranidae	True Frogs				
Rana draytonii	California red-legged frog	FT	SSC	Aquatic, flowing and standing waters, marsh and swamps, riparian areas, wetlands. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**NONE** Suitable perennial water is not present on the project site.
Rana muscosa	southern mountain yellow-legged frog	FE	SE	Prefers rocky stream courses in the mountains of southern California. Inhabits mid- to upper-elevation, perennial streams, often in locations with bedrock pools. Always encountered within a few feet of water.	**NONE** No suitable habitat in the form of rocky stream courses or perennial streams are present on the project site.
Salamandridae	Newts				
Taricha torosa	Coast Range newt	NONE	SSC	Terrestrial habitats and will migrate over 1 kilometer to breed in ponds, reservoirs and slow-moving streams.	**NONE** No suitable habitat is present on the project site. No ponds, reservoirs, or slow-moving streams are present within 1 km of the project site.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Scaphiopodidae	North American Spadefoots				
Spea hammondii	western spadefoot	None	SSC	Primary habitat is vernal pools or other standing water free of exotic species below 1500 meters. Secondary habitats include adjacent chaparral, sage scrub, grassland and alluvial scrub.	**POTENTIAL [LOW]** No suitable primary habitat found on the project site. However, secondary habitat (chaparral and grassland) are present on the project site.
Reptiles					
Emydidae	Box and Water Turtles				
Emys marmorata	western pond turtle	None	SSC	Requires basking sites, such as partially submerged logs, vegetation mats, open mud banks, or grassy open fields within 0.5 km of permanent water. Suitable nesting sites are within or near permanent or near permanent bodies of water below 2,000 meters.	**NONE** No suitable basking and nesting habitats are present on the project site.
Anniellidae	Legless Lizards				
Anniella pulchra pulchra	silvery legless lizard	None	SSC	Frequents sparse vegetation of beaches, chaparral, pine-oak woodland, and streamside growth of sycamores, cottonwoods, and oaks. Needs loose soil for burrowing, moisture, warmth, and plant cover. Moisture is essential.	**POTENTIAL** Suitable habitat (chaparral) is present on the project site, although moisture does not appear prevalent.
Boidae	Boas				
Charina trivirgata	Rosy boa	None	None	Chaparral, Mojavean desert scrub, and Sonoran desert scrub. Prefers moderate to dense vegetation and rocky cover.	**NONE** Project site is outside of species preferred elevation.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Colubridae	Colubrid Snakes				
Thamnophis hammondii	two-striped garter snake	None	SSC	Riparian and freshwater marshes with perennial water.	**NONE** Suitable perennial water is not present on the project site.
Phrynosomatidae	Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards				
Phrynosoma blainvillii	coast horned lizard	None	SSC	Chaparral; cismontane woodland; coastal bluff scrub; coastal scrub; desert wash; pinyon and juniper woodlands; riparian scrub; riparian woodland; valley and foothill grassland.	**POTENTIAL** The majority of the project site supports suitable habitat for this species. The closest known occurrence is approximately 4 miles east of the project site.
Teiidae	Whiptail Lizards				
Aspidoscelis tigris stejnegeri	coastal whiptail	None	CDFW Special Animals List	Various habitats in firm, sandy or rocky soils within sparse vegetation, open areas, woodlands and riparian communities of deserts and semi-arid areas.	**POTENTIAL** Suitable woodland habitat is present on the project site. The closest known occurrence is approximately 4.25 miles to the northwest of the project site.
Birds					
Accipitridae	Hawks				
Accipiter cooperi	Cooper's hawk	NONE	WL	Fairly common winter visitor in California, but breeding populations have declined due to loss of habitat and human disturbance. Nests primarily in fairly dense oak and riparian woodlands and forages over open lands.	**NONE [N]; POTENTIAL [F]** The project site contains suitable open lands for foraging, but does not have suitable nesting habitat.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Aquila chrysaetos	golden eagle	None	SFP	Open terrain in deserts, mountains, slopes, and valleys. Nest mainly on cliffs, also in large trees (such as oaks), and rarely on artificial structures or the ground.	**NONE [N]; POTENTIAL [F]** The project site contains (marginal) grassland habitat that could support a food source and thus has foraging potential. However, the site lacks suitable nesting habitat for the species. This species was recorded approximately 22.5 miles south of the project site in Malibu Canyon.
Buteo swainsoni	Swainson's hawk	None	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires suitable foraging areas adjacent to breading areas such as grasslands that support rodent populations.	**NONE [N]; POTENTIAL [F]** This species may be observed flying over the site or foraging, however, there is no suitable nesting habitat.
Elanus leucurus	white-tailed kite	None	SFP	Cismontane woodland; marsh and swamp; riparian woodland; valley and foothill grassland; wetland.	**NONE [N]; POTENTIAL [F]** This species may be observed flying over the site or foraging on the marginal grassland habitat, however, there is no suitable nesting habitat.
Cathartidae	New World Vultures				
Cathartes aura	turkey vulture	None	LAA	For western populations, nesting birds require remote, rocky locations with caves, cliff ledges, and piles of large boulders. Breeding birds are highly sensitive to disturbance. The species now breeds (if at all in Los Angeles County) in only the most remote portions of the San Gabriel and	**NONE [N]; POTENTIAL [F]** Suitable remote, rocky habitat required for nesting is not present. There is low potential for foraging within the open disturbed areas on the project site.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
				northwestern county mountains, with perhaps one pair remaining in the Santa Monica Mountains (Atlas data) and possibly in the Whittier Hills. Forages in almost any open habitat.	
Gymnogyps californianus	California condor	FE	SE	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Nesting habitat includes canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	**NONE [F,N]** Project site does not contain suitable foraging or nesting habitat. The site lacks vast expanses of open area. Moreover, site lacks clefts in rocky walls.
Cuculidae	Cuckoos and Roadrunners				
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FC	SE	Southwestern cottonwood-willow riparian, mixed broadleaf riparian forest.	**NONE [F, N]** The project site lacks suitable nesting and foraging habitat for the species.
Falconidae	Falcons				
Falco peregrinus anatum	American peregrine falcon	None	SFP	Found in a variety of habitats including mixed conifer, pinyon-juniper, sagebrush, riparian, grassland habitats, agricultural, and urban areas.	**POTENTIAL [F, N]** Project site has a low potential for the species to forage and nest within the grassland habitats.
Laniidae	Shrike Family				
Lanius ludovicianus	loggerhead shrike	NONE	SSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	**NONE [N]; POTENTIAL [F]** The project site contains marginal habitat for foraging in the non-native grass dominated areas, however, the site lacks nesting habitat. The closest known occurrence is approximately 7.5 miles north of the project site off Tapia Canyon Road.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Parulidae	Wood Warblers				
Icteria virens	yellow-breasted chat	NONE	SSC	In southern California, nest in dense willow woodlands and thickets or other riparian areas with a developed understory.	**NONE [F]; NONE [N]** There is no suitable nesting or foraging habitat present on the project site.
Dendroica petechia brewsteri	yellow warbler	NONE	SSC	Riparian woodlands, montane chaparral, open ponderosa pine and mixed coniferous habitat with significant brush.	**NONE [F]; NONE [N]** There is no suitable nesting or foraging habitat present on the project site.
Strigidae	True Owls				
Athene cunicularia	burrowing owl	None	SSC	Disturbed; low-growing vegetation within coastal prairie, coastal scrub, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, valley and foothill grassland; bare ground, disturbed.	**NONE [N]; LOW [F]** Marginally suitable habitat for foraging is found within the grasslands on the project site. However, the site does not have suitable nesting habitat. The species was recorded 5 miles north of the project site off Cooper Hill Drive in 2007.
Vireonidae	Vireos				
Vireo bellii pusillus	least Bell's vireo	FE	SE	Riparian forest; riparian scrub; riparian woodland.	**NONE [N]; NONE [F]** No suitable habitat on-site. The project site lacks willow thickets typically preferred by this species.
Hirundinidae	Swallows				
Riparia riparia	bank swallow	None	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**NONE [N]; NONE [F]** Suitable riparian habitat is not present. The project site does not support suitable fine-textured/sandy soils required for nesting.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Paridae	Tits, Chickadees and Titmice				
Baeolophus inornatus	oak titmouse	None	AWL	Primarily associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California, from the Mexican border to Humboldt County.	**LOW [N, F]** Project site contains singular oak trees but lacks stands of oaks.
Polioptilidae	Gnatcatchers				
Polioptila californica californica	coastal California gnatcatcher	FT	SSC	Coastal bluff scrub; coastal scrub.	**NONE [N]; POTENTIAL [F]** The project site lacks suitable nesting habitat. However, there is a potential for the species to forage on the project site as there is coastal scrub in the vicinity of the project site. Critical habitat is located less than a mile south of the project site south of Towsley Canyon Road.
Icteridae	Blackbirds				
Agelaius tricolor	tricolored blackbird	None	SSC	Highly colonial species. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	**NONE [N]; NONE [F]** Suitable open water habitat is not present on the project site.
Emberizidae	Buntings, Juncos and Sparrows				
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None	CDFW Watch List	Frequents relatively steep, often rocky hillsides with grass and forb patches. Resident in southern California coastal sage scrub and mixed chaparral.	**POTENTIAL [N, F]** Project site contains suitable chaparral habitat. The species was recorded approximately 8 miles south of the project site near Corriganville Park.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Artemisiospiza belli belli	Bell's sage sparrow	NONE	CDFW Watch List	Nests on the ground beneath shrubs or in shrubs 6 to 18 inches above the ground within chaparral communities dominated by fairly dense stands of chamise or in coastal scrub.	**POTENTIAL [N, F]** Project site contains suitable chaparral habitat for nesting and foraging.
Mammals					
Leporidae	Hares and Rabbit Family				
Lepus californicus bennettii	San Diego black-tailed jackrabbit	NONE	SSC	Open brushlands and scrub habitats between sea level and 1,219 meters in elevation.	**NONE** Project site lacks open brushland and scrub habitats, as the project site is comprised mainly of dense chaparral.
Muridae	Mice, Rats, and Voles				
Neotoma lepida intermedia	San Diego desert woodrat	None	SSC	Coastal scrub and chaparral. Prefer areas with moderate to dense vegetation cover and are commonly found in rock outcrops and cliffs.	**POTENTIAL** The project site contains suitable chaparral habitat for the species.
Onychomys torridus ramona	southern grasshopper mouse	NONE	SSC	Prefers alkali desert scrub and desert scrub habitats, although also found in succulent shrub, wash, riparian, coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats. Friable soil for digging burrows within habitats with low to moderate shrub cover is preferred. Food source is arthropods, especially scorpions and grasshoppers.	**POTENTIAL** This species has a very low potential to occur on the project site.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Molossidae	Free-Tailed Bats				
Eumops perotis californicus	western mastiff bat	None	SSC	Chaparral; cismontane woodland; coastal scrub; valley and foothill grassland. Roosts in crevices in cliff faces, high buildings, trees, and tunnels. Preys on insects.	**LOW [N, F]** The project site contains chaparral habitat with trees and cliff faces, providing suitable nesting and foraging habitat.
Phyllostomidae	Leaf-Nosed Bats				
Macrotus californicus	California leaf-nosed bat	None	SSC	Roosts in rocky, rugged terrain with mines or caves in riparian, wash, succulent scrub, alkali scrub and palm oasis habitats of deserts.	**NONE [N,F]** There is no suitable roosting habitat on the project site (mines or caves).
Sciuridae					
Neotamias speciosus speciosus	Lodgepole chipmunk	None	None	Species is found in chaparral, and upper montane coniferous forest. Summits of isolated Piute, San Bernardino, & San Jacinto mountains. Usually found in open-canopy forests at elevations ranging from 1,500 to 3,000 meters.	**NONE [N,F]** Suitable habitat is not present on the project site. Moreover, the project site is outside of the species preferred elevation range.
Vespertilionidae	Evening Bats				
Antrozous pallidus	pallid bat	None	SSC	Chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, and valley and foothill grassland. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Very sensitive to disturbance of roosting sites.	**LOW [N,F]** The project site has potential roosting and foraging habitat.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Corynorhinus townsendii	Townsend's big-eared bat	NONE	SCT, SSC	Throughout California in a wide variety of habitats (e.g., broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley & foothill grassland). Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**NONE [N]; LOW [F]** This species is not expected to occur within the study area as there are no recent records of this species for Los Angeles County. However, suitable foraging habitat is present although the species is not expected to roost on-site.
Euderma maculatum	spotted bat	None	SSC	Habitats occupied include arid deserts, grasslands and mixed conifer forests from below sea level in California to above 3,000 m (10,000 ft) in New Mexico. Prefers to roost in rock crevices. Occasionally found in caves and buildings. Cliffs provide optimal roosting habitat. Forages over water and along washes.	**NONE [N, F]** Suitable habitat is not present on the project site.
Lasionycteris noctivagans	silver-haired bat	None	WBWG Medium	Species is primarily a forest bat, associated primarily with north temperate zone conifer and mixed conifer/hardwood forests. It has been found in winter and during seasonal migrations in low elevation, more xeric habitats.	**NONE [N, F]** Suitable habitat is not present on the project site. Moreover, there are no records of the species north of the coast range mountains in Los Angeles County.

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.

Scientific Name	Common Name	Federal	State	Preferred Habitat	Potential For Occurrence
Lasiurus cinereus	hoary bat	None	WBWG Medium	Habitats suitable for bearing young include all woodlands and forests with medium to large-size trees and dense foliage. Generally roosts in dense foliage of medium to large trees and requires water.	**NONE [N]; LOW [F]** Marginal suitable habitat for foraging is present on the project site. However, the project site lacks water required for roosting.

Key to Species Listing Status Codes

FE	*Federally Endangered*	SE	*State Listed as Endangered*
FT	*Federally Threatened*	ST	*State Listed as Threatened*
FC	*Federal Candidate*	SCE	*State Candidate for Endangered*
FPE	*Federally Proposed as Endangered*	SCT	*State Candidate for Threatened*
FPT	*Federally Proposed as Threatened*	SFP	*State Fully Protected*
FPD	*Federally Proposed for Delisting*	SSC	*California Species of Special Concern*
FSS	*USDA Forest Service Sensitive Species*	AWL	*Audubon Watch List*
WBWG	*Western Bat Working Group*	LAA	*Los Angeles Audubon list of Los Angeles County's Sensitive Bird Species*

SOURCE: ESA PCR, 2016

NONE = Species not expected to occur due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (N) = Species not expected to nest or roost due to the lack of suitable habitat, or the site's location is outside of the species' range.

NONE (F) = Species not expected to forage due to lack of food sources, or the site's location is outside of the species' range.

NOT EXPECTED = Preferred habitat was considered potentially present based on the literature review and anticipated habitat in the study area, however no individuals were observed and/or suitable habitat was absent based on the general field survey or focused surveys.

POTENTIAL = Preferred habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (N) = Preferred nesting or roosting habitat was considered potentially present based on the literature review and observed habitat in the Project site.

POTENTIAL (F) = Preferred foraging habitat was considered potentially present based on the literature review and observed habitat in the Project site.

OBSERVED = Species was observed during surveys conducted on the site.