Biological Resources

APPENDIX D

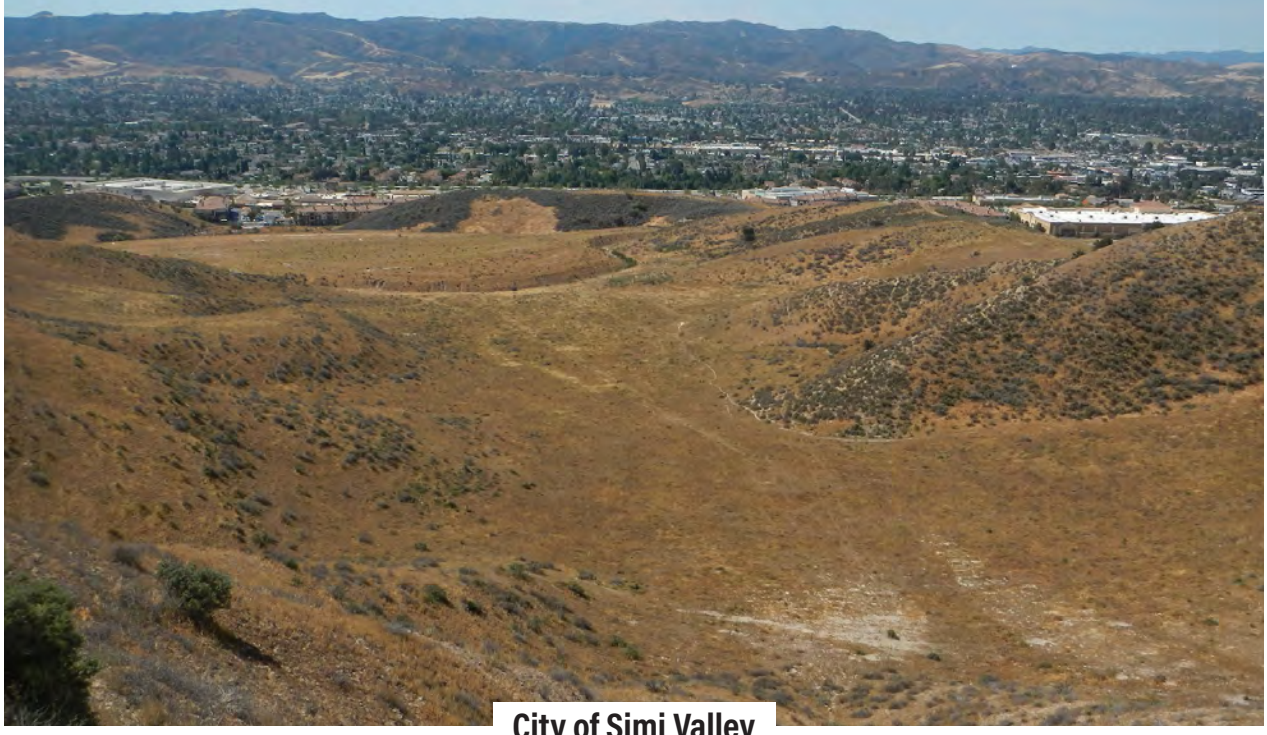
Biology Inventory Jul 2023

APPENDIX D

Biological Resources Inventory

North Canyon Ranch Residential Project

And Required County Island Annexations



City of Simi Valley

PREPARED FOR:

City of Simi Valley

2929 Tapo Canyon Road
Simi Valley, California 93063

PREPARED BY:

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July 2023

BIOLOGICAL RESOURCES INVENTORY

North Canyon Ranch Residential Project and Required County Island Annexations

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FIGURES

PLATES

TABLES

APPENDICES

1.0 INTRODUCTION

Envicom Corporation (Envicom) has prepared this inventory of biological resources for the North Canyon Ranch Residential Project site (hereinafter the "site") located in an unincorporated area of eastern Ventura County within the Sphere of Influence of the City of Simi Valley, California (see **Figure 1**, **Regional Location Map-North Canyon Ranch Residential Project Site**). The site is 160.32 acres and is currently undeveloped. It is north of the planned extension of Falcon Street between First Street and Erringer Road, and the north of the existing Archstone Apartments and Simi Valley Town Center (See **Figure 2**, **Aerial Image of the North Canyon Ranch Residential Project Site/Photo Location Map**). It is bordered on the east by residential development, on the south by commercial and residential development, and on the north and west by undeveloped lands. The site is located within Section 4, Township 2N, Range 18W of the USGS 7.5' Simi topographic quadrangle map. An aerial image of the project site and surrounding area is provided as **Figure 3**, **Color Aerial Image of North Canyon Ranch Project Site and Surrounding Area**.

The proposed project would require annexation to the City of Simi Valley and includes of a request to change the zoning designation of the property from Ventura County designation OS-160 (Open Space, minimum parcel size of 160 acres) to City of Simi Valley designations of OS (Open Space), RM (Residential Medium Density), and RMod (Residential Moderate Density). The project also proposes to subdivide the property for development of approximately 157 single family homes, 50 multi-family units and open space. The project would also include the expansion of Falcon Street, which would run in an east-west direction through the southern portion of the site. Approximately 71 acres would be designated as Open Space following development.

This report summarizes the methods and results of field investigations and includes a discussion of the protected and regulated biological resources confirmed present or with the potential to occur at the site. Maps and representative photographs of special-status species and natural communities found at the site are provided. Comprehensive lists of the vascular plants and vertebrate wildlife species observed during field surveys as well as an analysis of the potential for occurrence of special-status plant and wildlife species are included as appendices to the report. The proposed project's impact on these resources as well as whether and how impacts would be avoided or mitigated is addressed in the Biological Resources Section of the project's Environmental Impact Report (EIR).

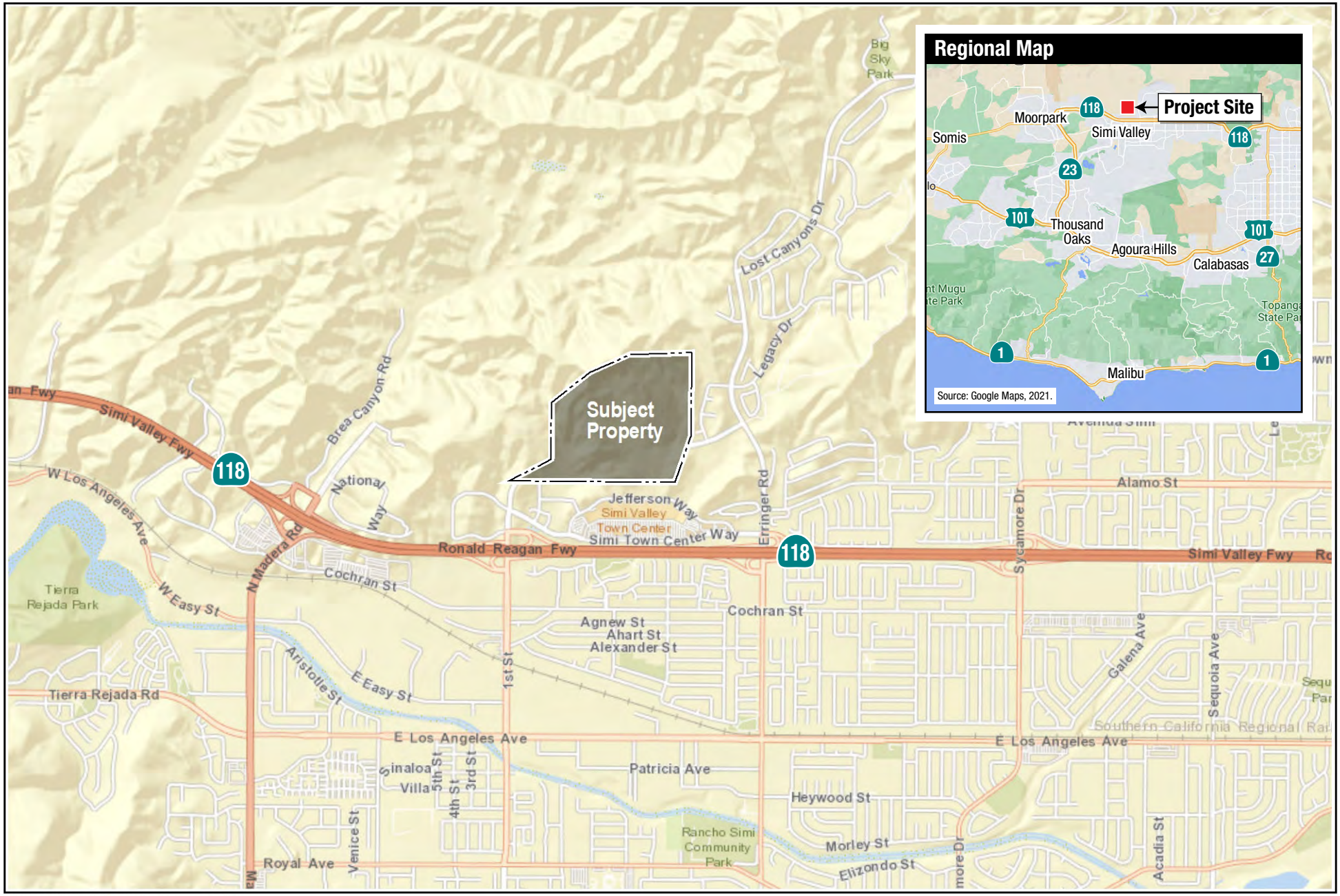
Section 3.0 of this report also includes the results of a literature review and site visit as well as a general site description for nine (9) additional areas within unincorporated Ventura County that are proposed for annexation to the City of Simi Valley. Other than annexation, no development is currently proposed at these areas and any proposed future development would be subject to further environmental review.

2.0 NORTH CANYON RANCH RESIDENTIAL PROJECT SITE

2.1 METHODS

Literature Review

A literature review was performed that included information available in standard biological references and relevant lists and databases pertaining to the status and known occurrences of sensitive and special-status biological resources. Other sources of information included aerial photographs, topographic maps, soil survey maps, climatic data, relevant policy and planning documents, and previous biological studies of the site. The following sources were among those reviewed in preparation for field surveys, or that were consulted during preparation of this report (for a complete list see the references section):



Source: ESRI, World Street Map, 2021.

envicom

Regional Location Map – North Canyon Ranch Residential Project Site

MILES 0 .25 .5

FIGURE 1

Source: GoogleEarth Pro, Dec. 10, 2013.

envicom

Aerial Image of the North Canyon Ranch Residential Project Site / Photo Location Map

FEET 0 250 500

FIGURE 2

Source: ESRI World Imagery Aerial Backgrounds, 2015.

Color Aerial Image of North Canyon Ranch Project Site and Surrounding Area

0 1,000 2,000 Feet

FIGURE 3

- *Biogeographic Information and Observation System (BIOS)*, California Department of Fish and Wildlife (CDFW), data as of June 20, 2023;
- *California Natural Diversity Database (CNDDB) Rarefind 5* report for the 7.5' USGS Simi quadrangle and eight (8) surrounding quadrangles, CDFW, data as of June 20, 2023;
- *Inventory of Rare and Endangered Vascular Plants of California* report for the 7.5' USGS Simi quadrangle and eight (8) surrounding quadrangles, CNPS, data as of June 20, 2023;
- *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities*, CDFW, March 20, 2018;
- *California Natural Communities List,* CDFW, June 1, 2023;
- *United States Fish and Wildlife Service Critical Habitat Mapper*, United States Fish and Wildlife Service (USFWS), data as of June 20, 2023;
- *List of Special Vascular Plants, Bryophytes, and Lichens*, CDFW, April 2023; and
- *Special Animals,* CDFW, April 2023.

The results of the literature review with respect to the status and known occurrences of sensitive and special-status biological resources at the site and in the surrounding area are discussed under relevant sections later in this document. Lists and maps generated when searching the CNDDB, BIOS, CNPS Inventory of Rare and Endangered Plants, and the USFWS Critical Habitat Mapper are provided in **Appendix 1**.

Field Surveys

Biological surveys to inventory the resources at the site were conducted by Mr. Jim Anderson, Principal Biologist at Envicom. Mr. Anderson also performed natural community mapping using high-resolution aerial imagery of the site. The surveys were conducted on the following dates and times, and in the following conditions:

Year 2015

- April 29, 2015 between the hours of 9:15 a.m. and 6:15 p.m. in warm to hot and clear conditions (mid-70s to low-90s °F) with winds of 5 to 10 m.p.h.;
- May 6, 2015 between the hours of 7:30 a.m. and 4:00 p.m. in warm and overcast conditions (high-50s to mid-60s °F) with winds of 5 to 10 m.p.h.;
- May 7, 2015 between the hours of 7:30 a.m. and 4:00 p.m. in cool and mostly cloudy to overcast conditions (low-50s to low-60s °F) with winds of 0 to 15 m.p.h.
- May 8, 2015 between the hours of 2:30 p.m. and 6:30 p.m. in cool and overcast conditions (mid to upper-50s °F) with winds of 0 to 10 m.p.h.;
- May 18, 2015 between the hours of 2:15 p.m. and 4:55 p.m. in warm and mostly cloudy conditions (mid to upper-60s °F) with winds of 5 to 10 m.p.h.;
- August 7, 2015 between the hours of 11:30 a.m. and 4:40 p.m. in warm and clear conditions (mid-70s to mid-80s °F) with winds of 5 to 10 m.p.h.;
- August 10, 2015 between the hours of 11:45 a.m. and 6:00 p.m. in warm and clear conditions (low-70s to low-80s °F) with winds of 5 to 10 m.p.h.; and,
- August 11, 2015 between the hours of 10:50 a.m. 3:10 p.m. in warm and clear conditions (low-70s to low-80s °F) with winds of 5 to 10 m.p.h.

Year 2017

- March 20, 2017 between the hours of 9:40 a.m. and 6:50 p.m. in cool to warm and mostly cloudy conditions (mid-50s to upper-60s °F) with winds of 0 to 10 m.p.h.;
- March 24, 2017 between the hours of 10:30 a.m. and 6:00 p.m. in warm and clear conditions (low to mid-60s °F) with winds of 5 to 10 m.p.h.;
- April 6, 2017 between the hours of 4:30 p.m. and 7:00 p.m. in warm and partly cloudy conditions (mid to upper-60s °F) with winds of 5 to 10 m.p.h.;
- April 24, 2017 between the hours of 2:00 p.m. and 5:00 p.m. in warm and clear conditions (upper-60s to lower-70s °F) with winds of 5 to 10 m.p.h.;
- May 19, 2017 between the hours of 11:00 a.m. and 12:00 p.m. in warm and clear conditions (low- to mid-80s °F) with winds of 10 to 15 m.p.h.;
- June 15, 2017 between the hours of 9:00 a.m. and 5:00 p.m. in warm and clear conditions (mid-70s to upper-80s °F) with winds of 5 to 10 m.p.h.;
- July 14, 2017 between the hours of 9:00 a.m. and 12:00 p.m. in warm and clear conditions (low-70s to low-80s °F) with winds of 0 to 10 m.p.h.; and,
- October 2, 2017 between the hours of 12:25 p.m. and 7:00 p.m. in warm and clear conditions (mid-60s to mid-70s °F) with winds of 0 to 10 m.p.h.

Year 2019

- March 8, 2019 between the hours of 11:00 a.m. and 12:00 p.m. in cool and mostly clear conditions (mid-50s °F) with winds of 5 to 10 m.p.h.;
- May 31, 2019 between the hours of 1:25 p.m. and 5:50 p.m. in warm and partly cloudy conditions (upper-60s to low-70s °F) with winds of 5 to 10 m.p.h.;
- June 6, 2019 between the hours of 12:25 p.m. and 7:25 p.m. in warm and partly cloudy conditions (low to upper-70s °F) with winds of 5 to 10 m.p.h.; and,
- June 10, 2019 between the hours of 2:45 p.m. and 5:15 p.m. in hot and partly cloudy conditions (mid-90s °F) with winds of 5 to 10 m.p.h.

Year 2023

- May 10, 2023 between the hours of 11:30 a.m. and 6:30 p.m. in warm and cloudy to partly cloudy conditions (low to mid-60s °F) with winds of 5 to 15 m.p.h.;
- May 11, 2023 between the hours of 2:45 p.m. and 6:00 p.m. in warm and fair conditions (upper-60s °F) with winds of 5 to 10 m.p.h.;
- June 2, 2023 between the hours of 11:00 a.m. and 3:00 p.m. in warm and fair conditions (mid-60s to low-70s °F) with winds of 5 to 10 m.p.h.; and,
- June 6, 2023 between the hours of 11:00 a.m. and 5:00 p.m. in warm and cloudy conditions (low to mid-60s °F) with winds of 5 to 15 m.p.h.

The field surveys included a search for protected biological resources, including rare, threatened, and endangered plant and wildlife species, special habitats, and rare and sensitive natural communities as well as an evaluation of the value of the site for wildlife movement. The surveys were performed by slowly walking transects across the site and investigating particular areas thoroughly, as necessary. The survey methodology resulted in an investigation of all habitats at the site, including coastal sage scrub, native and

non-native herbaceous communities, rock outcrops, and disturbed areas. The steepest slopes and outcrops in the northern portion of the site were inaccessible and were therefore viewed from good vantage points using binoculars. A comprehensive inventory of vascular plants was recorded with all species identified to the taxonomic level necessary to determine their status. Vascular plant species determinations were made using *The Jepson Manual: Vascular Plants of California, 2nd edition* (Baldwin B. et al. 2012). Vertebrate wildlife species were identified by direct observation, vocalization, or sign (e.g., tracks, scat, or burrows). Wildlife species identification relied upon Reid (2006), Sibley (2016), and Stebbins (2003). Several photographs were taken as a record of conditions at the time of the survey.

California Gnatcatcher Protocol Surveys

USFWS protocol-level surveys for the federally Threatened California Gnatcatcher (*Polioptila californica*) were conducted in Spring 2015, Spring 2017, and Spring 2023.

The Spring 2015 and Spring 2017 surveys were conducted by Mr. Dan Cooper of Cooper Ecological Monitoring, Inc. As required by the survey protocol, six (6) morning visits were conducted spaced one week apart. The Spring 2015 protocol survey was conducted between April 19 and May 27, 2015, as follows:

- April 19, 2015 between the hours of 7:10 a.m. and 10:47 a.m. in clear and calm conditions (47 to 66 °F);
- April 28. 2015 between the hours of 7:42 a.m. and 10:20 a.m. in clear conditions (63 to 88 °F) with winds to 5 m.p.h.;
- May 5, 2015 between the hours of 8:00 a.m. and 10:33 a.m. in overcast and calm conditions (59 °F);
- May 12, 2015 between the hours of 7:32 a.m. and 9:16 a.m. in partly cloudy and mostly calm conditions (57 to 61 °F) with gusts to 10 m.p.h. atop ridges;
- May 19, 2015 between the hours of 9:59 a.m. and 11:02 a.m. in clear and calm conditions (61 °F); and,
- May 27, 2015 between the hours of 10:35 a.m. and 12:13 a.m. in partly cloudy and calm conditions (54 to 66 °F).

During the initial visit on April 19, 2015 as much of the site was walked as was safely accessible, but during later visits the focus was on areas with the densest patches of coastal sage scrub where the chances of finding and observing California Gnatcatchers would be highest. Most of the effort was focused on areas of intact coastal sage scrub, although a portion of grazed/sparse coastal sage scrub habitat was also surveyed during each visit. Recordings of California Gnatcatcher vocalizations were employed using an iPhone during each survey with playback stopped when a bird responded. The time and duration of all encounters with California Gnatcatchers were recorded, and major movements, vocalizations and any other relevant behavior was also noted. The numbers of all other bird species were also recorded during each visit.

The 2015 survey determined that the California gnatcatcher is present at the site, with an adult male detected on each visit, and a second bird, either an adult female or a young-of-the-year, seen on the last of six (6) visits. The methods and results of the protocol survey are discussed in more detail in a separate report prepared by Mr. Cooper titled *Protocol survey for California gnatcatcher Polioptila californica at "North Canyon Ranch"* (June 5, 2015).

The Spring 2017 protocol survey was conducted between March 29 and May 5, 2017 as follows:

- March 29. 2017 between the hours of 7:33 a.m. and 9:53 a.m. in clear and calm conditions (60 to 72 °F);
- April 5, 2017 between the hours of 8:10 a.m. and 10:15 a.m. in clear and calm conditions (59 °F);
- April 12, 2017 between the hours of 9:40 a.m. and 11:40 a.m. in clear and calm conditions (60 to 70 °F);
- April 20, 2017 between the hours of 8:24 a.m. and 9:45 a.m. in clear conditions (60 to 65 °F) with winds of 3 to 15 m.p.h.;
- April 27, 2017 between the hours of 7:54 a.m. and 9:58 a.m. in clear conditions (60 to 69 °F) with winds of 0 to 15 m.p.h.; and,
- May 5, 2017 between the hours of 9:18 a.m. and 10:26 a.m. in overcast conditions (58 to 64 °F) with winds of 3 to 5 m.p.h.

During the 2017 survey, the focus was again on areas with the densest patches of coastal sage scrub where the chances of finding and observing California Gnatcatchers would be highest, including the areas where the species had been detected in 2015 (i.e., along the southern boundary of the site). At least a portion of the grazed/sparse coastal sage scrub habitat in the interior of the site was walked during each visit, to make sure no birds were being missed there. Recordings of California Gnatcatcher vocalizations (using an iPhone) were employed during each survey and the numbers of all other bird species noted during each visit. No California gnatcatchers were detected during the 2017 protocol survey. The methods and results of the protocol survey are discussed in more detail a separate report prepared by Mr. Cooper titled *Protocol survey for California gnatcatcher Polioptila californica at "North Canyon Ranch"* (May 18, 2017).

The Spring 2023 surveys were conducted by Ms. Jennifer Sexton of TW Biological Services, LLC. The Spring 2023 protocol survey was conducted between April 15 and June 2, 2023, as follows:

- April 15, 2023 between the hours of 7:00 a.m. and 11:35 a.m. in clear conditions (55 to 76 °F) with no wind;
- April 22. 2023 between the hours of 6:30 a.m. and 10:45 a.m. in cloudy conditions (60 to 65 °F) with winds to 1 m.p.h.;
- May 8, 2023 between the hours of 7:00 a.m. and 11:10 a.m. in clear conditions (62 to 70 °F) with winds to 1 m.p.h.;
- May 15, 2023 between the hours of 7:30 a.m. and 11:10 a.m. in partly cloudy conditions (60 to 72 °F) with no wind;
- May 25, 2023 between the hours of 6:20 a.m. and 9:40 a.m. in cloudy conditions (55 to 60 °F) with winds to 1 m.p.h.
- June 2, 2023 between the hours of 6:40 a.m. and 10:20 a.m. in cloudy conditions (57 to 64 °F) with no wind.

During the 2023 survey, the route used to survey the habitat varied little and was arranged to ensure complete coverage of the habitat and site. A tape of recorded vocalizations was used as necessary in order to elicit responses from the species. The tape was played approximately every 100 feet or more frequently if it appeared that there was sound attenuation due to topography. The methods and results of the protocol survey are discussed in more detail a separate report prepared by Ms. Sexton titled *Presence/Absence*

Surveys for Coastal California Gnatcatcher on the North Canyon Ranch Residential Project, Ventura County, California (July 11, 2023).

Envicom also observed California gnatcatchers at the site during botanical and general wildlife surveys conducted in 2015, 2017, 2019, and 2023. These observations as well as the observations by Cooper Ecological Monitoring, Inc. and TW Biological Services, LLC are discussed under Section 4.3.2: Special-Status Wildlife Species, later in this report.

2.2 ENVIRONMENTAL SETTING

The proposed project site is located in the southern foothills of the Santa Susana Mountains near the northern limits of the City of Simi Valley. Regionally, the site is encircled by Big Mountain, Oak Ridge, and the Santa Susana Mountains to the north; Sand Canyon and Tapo Canyon to the east; the 118 Freeway, Arroyo Simi, and the City of Simi Valley to the south; and Brea and Alamo Canyon to the west. In the immediate vicinity and east of the proposed project site is the Big Sky Ranch single-family residential community. Also, the proposed project site is just south of the Simi Valley Town Center, a regional shopping center, and the Archstone Apartments. To the west and north of the site is undeveloped land, which is owned by Waste Management of California, with a portion of the property under operation as the Simi Valley Landfill and Recycling Center.

The site is characterized largely by north to south trending ridgelines and canyons as well as previously cleared and graded areas, which are concentrated in the southern portion of the site. The topography of the site is diverse and ranges from level terrain to steep hillslopes with elevations ranging from approximately 960 feet to 1,300 feet above mean sea level (MSL). The site is naturally vegetated and contiguous to the north and west with extensive areas of native habitat. Previously modified areas at the site include level, graded areas, unimproved dirt roads, manufactured slopes with concrete terrace drains, and two debris basins, which protect the urban areas to the south of the site from stormwater and debris flows. There are also man-made ditches that direct stormwater flows around the perimeter of the level, graded areas, which contain soils from construction of the Simi Town Center Mall that was deposited on-site. Some "two-track" roads traverse the north-south trending ridgelines, and these roads continue off-site. There is also a fuel reduction zone along the eastern boundary, which protects the neighboring residential development.

The condition of much of the natural vegetation at the site has been substantially affected by cattle grazing. This is reflected in that the site now consists predominately of open stands of disturbed native scrub and herb-dominated habitats infested with invasive weeds. The site appears to be currently or at least recently grazed as cattle were observed during some of the field surveys.

Three fires have burned the site since 1958. The Brea Canyon Fire of 1958 burned the western edge and the southwestern corner of the site, while the Clampitt Fire burned the entire site in 1970. The most recent fire to burn the site was the Simi Fire of 2003, which burned nearly the entire site leaving only the southeastern corner unaffected.

The site is within the Calleguas Creek Watershed. Ephemeral drainages flow in north-south direction through the site before discharging to the man-made ditches and debris basins near the southern property boundary. The geology at the site consists of non-marine sedimentary rocks of the Sespe Formation as well as alluvial deposits along drainage courses (United States Geologic Service, http://ngmdb.usgs.gov/maps/mapview/). There are a few rock outcrops associated with the steep slopes and ridgelines in the northern portion of the site. The site is otherwise not notably rocky. Soils are silty clay

loams, shaly loams, gravelly loams, sandy loams, and riverwash deposits derived from sedimentary rocks including sandstones, shales, mudstones, and conglomerates (Web Soil Survey, websoilsurvey.nrcs.usda.gov). The average high/low temperatures in the general area in August are 97/57°F, average high/low temperatures in December are 68/38°F, and precipitation is approximately 18 inches per year (www.weather.com).

2.3 BIOLOGICAL RESOURCES

2.3.1 VEGETATION AND PLANT COMMUNITIES

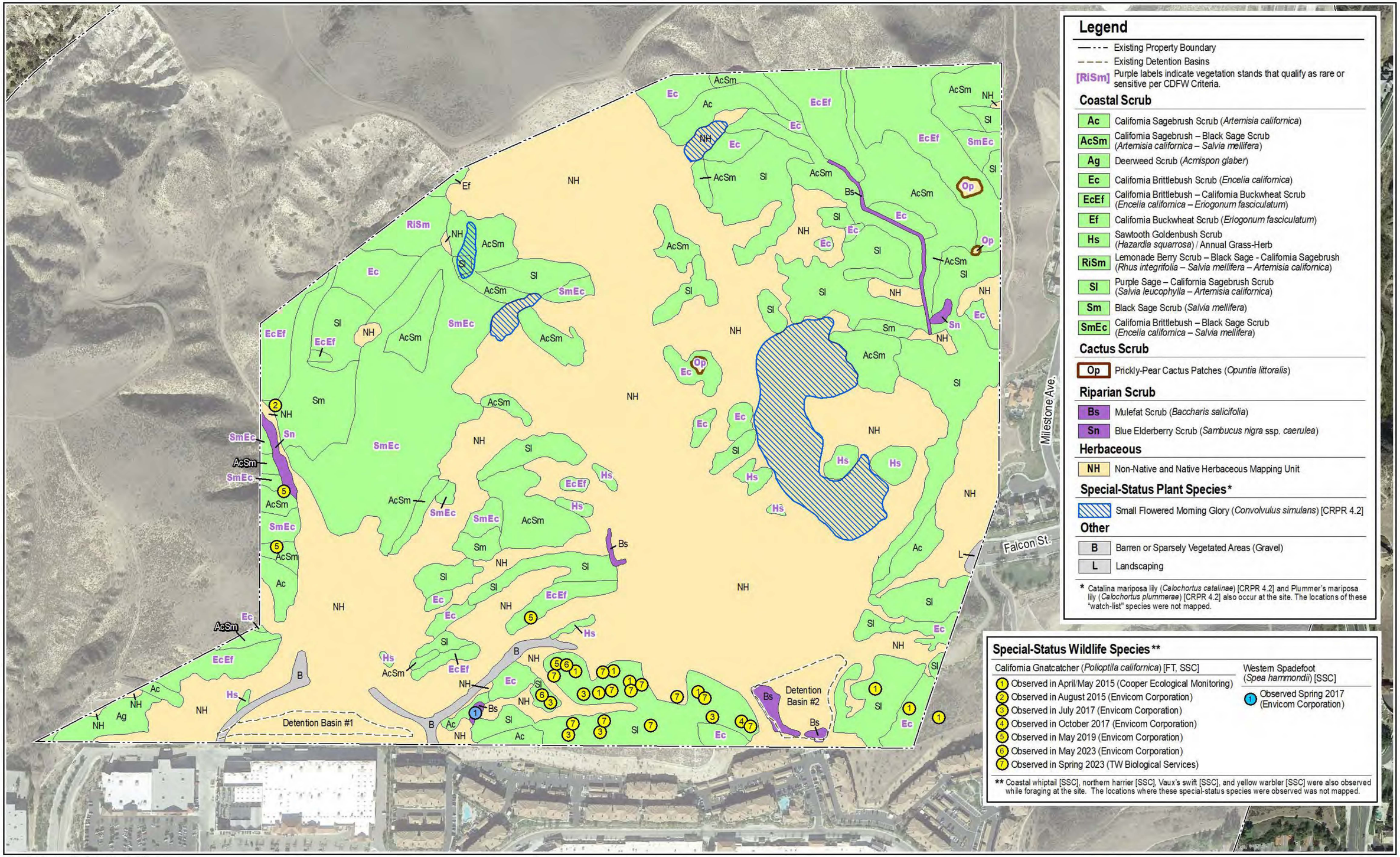
Vegetation

The vegetation at the site consists of coastal sage scrub, small patches of cactus scrub, disturbed non-native grass/forb habitats, and riparian scrub at some locations along drainage courses and within debris basins. Most of the natural habitats at the site have been disturbed to some extent by grazing. The vegetation and natural communities at the site are shown on **Figure 4**, **Vegetation and Special-Status Species Map**. Representative photographs of the vegetation at the site are provided on **Plate 1** and **Plate 2, Representative Photos of Habitat and Site Conditions at North Canyon Ranch Project Site**. A discussion of the vegetation is provided below, which is organized by broad habitat class.

Coastal Scrub and Cactus Scrub

The ridgelines and hillsides at the site support coastal sage scrub habitats dominated or co-dominated by California sagebrush (*Artemisia californica*), California brittlebush (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum*), bush mallow (*Malacothamnus fasciculatus*), purple sage (*Salvia leucophylla*), black sage (*Salvia mellifera*), lemonade berry (*Rhus integrifolia*), or sawtooth goldenbush (*Hazardia squarrosa*). As stated, the condition of these stands typically reflects some degree of grazing disturbance, and consequently the shrub canopies are often sparse, open, or intermittent. In a few areas, such as the fenced-off purple sage and California sagebrush scrub near the southern boundary of the site as well as some of steeper slopes in the northwestern and northeastern portions of the site, the scrub has not been grazed and is much more intact.

In general, California brittlebush, California buckwheat, black sage, and sawtooth goldenbush are more prevalent on the drier, exposed slopes at the site, while species such as purple sage and California sagebrush occupy the more sheltered slopes, such as the north-facing slopes. The California encelia scrub at the site occasionally contains patches or scattered elements of cactus scrub consisting of coast prickly-pear cactus (*Opuntia littoralis*) and/or coastal cholla cactus (*Cylindropuntia prolifera*). However, there is not a substantial amount of cactus scrub at the site. The sawtooth goldenbush stands especially can be very open and have a significant herbaceous component. Bush mallow is common in some areas of the site, mixing with coastal sage species such as purple sage or black sage. Bush mallow is a relatively short-lived plant and where common is often indicative of recent fire or other disturbance. Lemonade berry, an evergreen scrub species, is scattered at higher elevations in the northwestern portion of the site. Lemonade berry scrub has only been identified and mapped where the lemonade berry exceeds 10% absolute cover. Numerous cattle and other animal trails traverse the coastal sage scrub habitats at the site. Much of the coastal sage scrub at the site is infested with non-native weeds, such as southern Russian thistle (*Salsola australis*), red-stemmed filaree (*Erodium cicutarium*), hoary mustard (*Hirschfeldia incana*), wild oats (*Avena* spp.), and brome grasses (*Bromus* spp).



Legend

- Existing Property Boundary
- Existing Detention Basins
- [RiSm] Purple labels indicate vegetation stands that qualify as rare or sensitive per CDFW Criteria.

Coastal Scrub

- Ac — California Sagebrush Scrub (*Artemisia californica*)
- AcSm — California Sagebrush – Black Sage Scrub (*Artemisia californica – Salvia mellifera*)
- Ag — Deerweed Scrub (*Acmispon glaber*)
- Ec — California Brittlebush Scrub (*Encelia californica*)
- EcEf — California Brittlebush – California Buckwheat Scrub (*Encelia californica – Eriogonum fasciculatum*)
- Ef — California Buckwheat Scrub (*Eriogonum fasciculatum*)
- Hs — Sawtooth Goldenbush Scrub (*Hazardia squarrosa*) / Annual Grass-Herb
- RiSm — Lemonade Berry Scrub – Black Sage - California Sagebrush (*Rhus integrifolia – Salvia mellifera – Artemisia californica*)
- Sl — Purple Sage – California Sagebrush Scrub (*Salvia leucophylla – Artemisia californica*)
- Sm — Black Sage Scrub (*Salvia mellifera*)
- SmEc — California Brittlebush – Black Sage Scrub (*Encelia californica – Salvia mellifera*)

Cactus Scrub

- Op — Prickly-Pear Cactus Patches (*Opuntia littoralis*)

Riparian Scrub

- Bs — Mulefat Scrub (*Baccharis salicifolia*)
- Sn — Blue Elderberry Scrub (*Sambucus nigra* ssp. *caerulea*)

Herbaceous

- NH — Non-Native and Native Herbaceous Mapping Unit

Special-Status Plant Species*

- Small Flowered Morning Glory (*Convolvulus simulans*) [CRPR 4.2]

Other

- B — Barren or Sparsely Vegetated Areas (Gravel)
- L — Landscaping

* Catalina mariposa lily (*Calochortus catalinae*) [CRPR 4.2] and Plummer's mariposa lily (*Calochortus plummerae*) [CRPR 4.2] also occur at the site. The locations of these "watch-list" species were not mapped.

Special-Status Wildlife Species**

California Gnatcatcher (*Polioptila californica*) [FT, SSC]

1. Observed in April/May 2015 (Cooper Ecological Monitoring)
2. Observed in August 2015 (Envicom Corporation)
3. Observed in July 2017 (Envicom Corporation)
4. Observed in October 2017 (Envicom Corporation)
5. Observed in May 2019 (Envicom Corporation)
6. Observed in May 2023 (Envicom Corporation)
7. Observed in Spring 2023 (TW Biological Services)

Western Spadefoot (*Spea hammondii*) [SSC]

1. Observed Spring 2017 (Envicom Corporation)

** Coastal whiptail [SSC], northern harrier [SSC], Vaux's swift [SSC], and yellow warbler [SSC] were also observed while foraging at the site. The locations where these special-status species were observed was not mapped.

Aerial Source: GoogleEarth Pro, Dec. 10, 2013.

Vegetation and Special-Status Species Map

0 350 Feet

FIGURE 4

Photo 1A – Representative view centered on the large, previously graded areas in the southern portion of the site. Previously graded areas at the site are now highly disturbed and covered predominately by invasive weeds.

Photo 1B – Representative view of open coastal scrub and herbaceous habitats in the north central portion of the site. Much of the vegetation at the site reflects grazing disturbance.

Photo 1C – Representative view of the previously graded areas and surrounding slopes in the south central portion of the site.

Photo 1D – Representative view of the rugged canyon and surrounding slopes in the northeastern portion of the site. Coastal sage scrub dominated by California brittlebush, California buckwheat, black sage, purple sage, and / or California sagebrush is prevalent in this area.

Photo 1E – View facing north of the prominent ephemeral drainage and surrounding slopes in the eastern portion of the site. The drainage flows south to a detention basin at the southern site boundary. Surrounding slopes consist of grazed open scrub and herbaceous habitats. The fuel modification zone protecting adjacent residential development along the eastern property boundary is also visible.

Photo 1F – View facing east of the eastern detention basin located near the site's southern boundary. The basin contains minor amounts of mulefat scrub. Coastal sage scrub consisting of purple sage and California sagebrush is visible in the foreground and on the steep slope just east of the basin in the background.

Representative Photos of Habitats and Site Conditions at North Canyon Ranch Project Site

Photo 2A – View facing east of the western detention basin, previously graded level areas, and an unimproved dirt access road in the southwestern portion of the site. The Simi Town Center and the Archstone Apartments complex are visible on the right.

Photo 2B – Representative view of steep slopes and open scrub habitats in the northwestern portion of the site. Coastal sage scrub dominated by California brittlebush, California buckwheat, bush mallow, black sage, and/or California sagebrush is prevalent in this area.

Photo 2C – Another view of steep topography and scrub habitats in the western portion of the site. Level, graded areas at the site are visible in the background.

Photo 2D – Representative view facing northwest of the prominent ephemeral wash and adjacent slopes in the western portion of the site. The wash flows south to man-made ditches that run along the margins of the graded building pads. Flows from the wash ultimately discharge to the western detention basin or the City's stormdrain system.

Photo 2E – Patches of sensitive prickly-pear cactus scrub such as the one shown in this photo occur at a few locations within coastal sage scrub.

Photo 2F – This photo shows a stand of sensitive lemonade berry, black sage, and California sagebrush scrub (visible at center left), near the northwestern boundary of the site. Surrounding slopes to the right and in the background are off-site.

Representative Photos of Habitats and Site Conditions at North Canyon Ranch Project Site

Selected other notable native species occurring within the coastal sage scrub at the site include bladderpod (*Peritoma arborea*), bush lupine (*Lupinus succulentus*), California matchweed (*Gutierrezia californica*), sessile-flower goldenaster (*Heterotheca sessiliflora*), narrowleaf bedstraw (*Galium angustifolium*), caterpillar phacelia (*Phacelia cicutaria*), common eucrypta (*Eucrypta chrysanthemifolia*), whispering bells (*Emmenanthe penduliflora*), white everlasting (*Pseudognaphalium microcephalum*), cardinal Indian pink (*Silene laciniata*), elegant clarkia (*Clarkia unguiculata*), threadleaf woolly-star (*Eriastrum filifolium*), Turkish rugging (*Chorizanthe staticoides*), paintbrush (*Castilleja affinis*), golden stars (*Bloomeria crocea*), and blue dicks (*Dipterostemon capitatus* ssp. *capitatus*), coast melic grass (*Melica imperfecta*), crested needlegrass (*Stipa coronata*), and foothill needlegrass (*Stipa lepida*).

Riparian Scrub

Riparian scrub is not extensive at the site. Mulefat scrub (*Baccharis salicifolia*) occurs in small patches or as long but relatively open linear strips along incised drainages and the man-made drainage ditches at a few locations, as shown on Figure 4. There is also some highly disturbed mulefat scrub within the two detention basins along the southern boundary. Blue elderberry (*Sambucus nigra* ssp. *caerulea*) although often found in upland habitats occurs within drainages at a couple of locations at the site, and thus has also been mapped as riparian habitat. The mulefat scrub and blue elderberry stands within the natural drainages and washes tend to co-occur with scattered coastal sage scrub species, such as California sagebrush, purple sage, black sage, and bush mallow, rather than other riparian or wetland species, which indicates these are relatively dry stream habitats.

Herbaceous

The Non-native and Native Herbaceous mapping unit is used for convenience, and may contain multiple herbaceous vegetation types, consisting primarily of various non-native annual grasses and forbs although native herbaceous species and shrubs may also be present. Areas characterized by non-native herbs include the previously graded and cleared areas of the site, valley bottoms, some grazed hillslopes, and a fuel reduction zone along the eastern boundary, which protects the residential development to the east of the site. Many of the species found in these areas are naturalized invasives. Non-native herbs found in these areas include southern Russian thistle (*Salsola australis*), annual bursage (*Ambrosia acanthacarpa*), tocalote (*Centaurea melitensis*), hoary mustard (*Hirschfeldia incana*), London rocket (*Sisymbrium irio*), goosefoot (*Chenopodium* sp.), bur-clover (*Medicago polymorpha*), sourclover (*Melilotus indicus*), red-stemmed filaree (*Erodium cicutarium*), long-beaked filaree (*Erodium botrys*), small-flowered cheeseweed (*Malva parviflora*), wild oats (*Avena barbara, A. fatua*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), soft chess (*Bromus hordeaceous*), and foxtail barley (*Hordeum murinum*). Some representative native shrubs and herbs found in the non-native herbaceous habitats at the site include sawtooth goldenbush (*Hazardia squarrosa*), deerweed (*Acmispon glaber*), common fiddleneck (*Amsinckia intermedia*), slender tarplant (*Deiandra fasciculata*), succulent lupine (*Lupinus succulentus*), telegraph weed (*Heterotheca grandiflora*), virgate wire-lettuce (*Stephanomeria virgata*), and turkey mullein (*Croton setiger*). The composition and cover of herbs varied somewhat year to year depending on climate conditions. For example, native succulent lupine was dominant throughout much of the previously graded areas in 2023, a year of high precipitation. In drier years these same areas were strongly dominated by non-native species.

Individual Trees

There are a few small coast live oak trees (*Quercus agrifolia*) on the manufactured slopes in the southern portion of the site. These trees were planted and are therefore not naturally occurring. The individual oak trees or very small groups of oak trees are isolated trees or inclusions within surrounding plant communities

and are not oak woodlands. There are no oak woodlands at the site. Coast live oak trees and other native and non-native meeting certain size requirements are protected pursuant to the City's tree protection ordinance. Although the presence of oak trees was confirmed during field surveys conducted to prepare this report, documentation of the location and condition of oaks and other trees that would require protection pursuant to the City's tree protection ordinance was outside the scope of this study. See the arborist's report for the project by Golden State Land and Tree Assessment for a study of the trees on the property with respect to their protection under the City's tree protection ordinance.

Natural Communities of Special Concern

Natural Communities of Special Concern are communities that are of limited distribution statewide or within a county or region and are often vulnerable to the environmental effects of projects. They are also referred to as rare or sensitive plant communities. Natural Communities of Special Concern require special consideration and protection pursuant to the California Environmental Quality Act, specifically based on CEQA Thresholds Guidelines Appendix G Section 1V.b.[1] Natural communities with global or state conservation status ranks of G1 through G3, or S1 through S3, respectively, or a "Sensitive" designation, are considered to be Natural Communities of Special Concern. The conservation status ranks and sensitive designations for natural communities in the state are provided in the *California Natural Communities List*[2] (CDFW, June 1, 2023).

The natural communities at the site were mapped and then correlated with the *California Natural Communities List* (see Figure 4). Natural communities are classified based on plant species composition and abundance, as well as underlying abiotic conditions, such as slope, aspect, or soil type. The acreages and conservation status ranks of the natural communities are provided in **Table 1**, **Natural Communities at Project Site** below.

Table 1
Natural Communities at Project Site

Habitat Class	Natural Community*	Conservation Status Rank	Acreage (Study Area)
Coastal Scrub	Black Sage Shrubland Association (*Salvia mellifera*) [32.020.03]	G4S4	3.30
	California Sagebrush Shrubland Alliance (*Artemisia californica*) [32.015.00]	G5S5	2.82
	Lemonade Berry - Black Sage – California Sagebrush Shrubland Association (*Rhus integrifolia - Artemisia california –Salvia mellifera*) [37.803.05]	G3S3; Sensitive	1.09
	California Sagebrush – Black Sage Shrubland Alliance (*Artemisia californica – Salvia mellifera*) [32.210.00]	G4S4	14.68
	Deerweed Shrubland Alliance (*Acmispon glaber*) [37.070.00]	G5S5	0.93
	California Brittlebush Shrubland Alliance (*Encelia californica*) [32.051.00]	G3S3	6.41

[1] CEQA Guidelines Appendix G Biological Resources IV.b reads as follows: "would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?"

[2] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline. Natural Communities of Special Concern (Rare and Sensitive Communities) are included in this list.

Habitat Class	Natural Community*	Conservation Status Rank	Acreage (Study Area)
	California Brittlebush – California Buckwheat Shrubland Phase of California Brittlebush Shrubland Association (*Encelia californica – Eriogonum fasciculatum*)	G3S3; Sensitive	8.57
	California Buckwheat Shrubland Alliance (*Eriogonum fasciculatum*) [32.040.00]	G5S5	0.14
	Sawtooth Goldenbush Shrubland Alliance (*Hazardia squarrosa*) [32.055.00]	G3S3	1.56
	Purple Sage – California Sagebrush Shrubland Association (*Salvia leucophylla – Artemisia californica*) [32.090.01]	G4S4	24.12
	California Brittlebush – Black Sage Shrubland Association (*Encelia californica – Salvia mellifera*) [32.050.05]	G3S3?; Sensitive	11.12
Cactus Scrub	**Coast Prickly-Pear Shrubland Alliance (*Opuntia littoralis*) [32.150.00]**	G4S3	0.20
Riparian Scrub	**Blue Elderberry Shrubland Association (*Sambucus nigra* ssp. *caerulea*) [63.410.01]**	Sensitive	0.38
	Mulefat Shrubland Alliance (*Baccharis salicifolia*) [63.510.00]	G5S4	0.80
Herbaceous	Non-Native and Native Herbaceous	Not ranked	82.82
Other Landcover	Barren or Sparsely Vegetated	n/a	1.16
	Landscaping	n/a	0.09
		Total Acreages	**160.19**

* Numbers in brackets are unique codes for each plant community, as provided in the *California Natural Communities List* (CDFW, June 1, 2023). Plant communities in bold type are CDFW Natural Communities of Special Concern (Rare or Sensitive Plant Communities).

GLOBAL RANKING
The global rank (G-rank) is a reflection of the overall status of a natural community throughout its global range. Both Global and State ranks represent a letter+number score that reflects a combination of Rarity, Threat and Trend factors, with weighting being heavier on Rarity than the other two. "?"- Denotes an inexact numeric rank due to insufficient samples over the full, expected range of the vegetation type, but existing information points to the rank given.

G1 - Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer occurrences), very steep declines, or other factors.
G2 - Imperiled—At high risk of extinction due to very restricted range, very few occurrences (often 20 or fewer), steep declines, or other factors.
G3 - Vulnerable—At moderate risk of extinction due to a restricted range, relatively few occurrences (often 80 or fewer), recent and widespread declines, or other factors.
G4 - Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 - Secure—Common; widespread and abundant.

STATE RANKING
The state rank (S-rank) is assigned much the same way as the global rank, but state ranks refer to the imperilment status only within California's state boundaries.

S1 - Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2 - Imperiled—Imperiled in the state because of rarity due to very restricted range, very few occurrences (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

Habitat Class	Natural Community*	Conservation Status Rank	Acreage (Study Area)
S3 - Vulnerable—Vulnerable in the state due to a restricted range, relatively few occurrences (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state. S4 - Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors. S5 - Secure—Common, widespread, and abundant in the state.			

There are seven (7) rare or sensitive natural communities at the site, including:

- California Brittlebush Shrubland Alliance (*Encelia californica*)
- California Brittlebush – Black Sage Shrubland Association (*Encelia californica – Salvia mellifera*)
- California Brittlebush – California Buckwheat Shrubland Phase (*Encelia californica – Eriogonum fasciculatum*)
- Coast Prickly-Pear Shrubland Alliance (*Opuntia littoralis*)
- Blue Elderberry Shrubland Alliance (*Sambucus nigra* ssp. *caerulea*)
- Lemonade Berry – Black Sage – California Sagebrush Shrubland Association (*Rhus integrifolia – Salvia mellifera – Artemisia californica*)
- Sawtooth Goldenbush Shrubland Alliance (*Hazardia squarrosa*)

These rare or sensitive communities are shown on Figure 4 and indicated on Table 1 by bold lettering. At many locations these sensitive communities are open in structure and highly disturbed by non-native species, particularly in the central and southern portion of the site. The most highly disturbed stands are not quality examples of these habitats and are unlikely to recover by natural processes. The disturbed condition of these stands should be taken into consideration when evaluating project impacts and establishing mitigation requirements.

Plant Communities/Habitats Listed in CNDDB

A review of the California Department of Fish and Wildlife's Natural Diversity Database (CNDDB) Rarefind 5 application reveals 13 Sensitive Plant Communities/Habitats have been reported by other observers in the Simi Quadrangle area, or within adjacent quadrangles. These Sensitive Plant Communities/Habitats include:

- California Walnut Woodland;
- Cismontane Alkali Marsh;
- Southern California Threespine Stickleback Stream;
- Southern Coast Live Oak Riparian Forest;
- Southern Cottonwood Willow Riparian Forest;
- Southern Mixed Riparian Forest;
- Southern Riparian Forest;
- Southern Riparian Scrub;
- Southern Sycamore Alder Riparian Woodland;
- Southern Willow Scrub;

- Valley Needlegrass Grassland;
- Valley Oak Woodland; and
- Walnut Forest.

Psomas during their surveys of the site in 2005 reported an occurrence of valley (purple) needlegrass grassland on a north-facing slope in the southern portion of the site, in an opening in purple sage and California sagebrush scrub.[3] This area as well as the entire site was searched for native grassland habitats in 2015, 2017, 2019, and 2023 but no patches of native grassland were found. It is possible that the valley needlegrass grassland reported at the site in 2005 has since been displaced by invasive weeds or disturbed by cattle grazing.

2.3.2 PLANT SPECIES

Plant Species Observed

A total of 219 vascular plant taxa were identified during the surveys of the site by Envicom in 2015, 2017, 2019, and 2023 including two (2) ferns or fern allies and 217 flowering plants, including 182 dicots and 35 monocots. Of these, 164 were naturally occurring native species and 55 were non-native or introduced, representing moderate diversity of native species for a 160-acre site and a moderate proportion of non-natives. A complete list of the vascular plant species observed within the survey area is provided in **Appendix 2**.

Special-Status Plant Species

Special-status plant species either have unique biological significance, limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, or a combination of these factors. For the purposes of this report, special-status plant species are those plants listed, proposed for listing, or candidates for listing as Threatened or Endangered under the Federal Endangered Species Act (FESA); those listed or proposed for listing as Threatened or Endangered under the California Endangered Species Act (CESA); those listed as Rare under the Native Plant Protection Act; and plants on the CNPS Inventory of Rare and Endangered Vascular Plants with a California Rare Plant Rank (CRPR) 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (which includes plants considered to be rare, threatened, or endangered species in California and elsewhere), 2A (plants presumed extirpated in California, but more common elsewhere), 2B (plants rare, threatened, or endangered in California, but more common elsewhere), and 3 (plants about which more information is needed - a review list).

The term "special-status" also denotes species on the CNPS Inventory with a CRPR 4 that meet criteria to be considered locally significant. Plants with a CRPR of 4 are not rare, but rather are included on a "watch list" of species with limited distribution. However, while plants in this category cannot be called "rare" from a statewide perspective, and very few, if any, are eligible for state listing, many of them are significant locally. For this reason, CNPS strongly recommends that CRPR 4 plants be evaluated for consideration during preparation of environmental documents, which may be particularly appropriate for the type locality of a CRPR 4 plant; populations at the periphery of a species' range; areas where the taxon is especially uncommon; areas where the taxon has sustained heavy losses; or populations exhibiting unusual morphology or occurring on unusual substrates.

[3] Psomas, North Canyon Ranch Residential Development Bio Constraints and Opportunities, December 2006.

Species on the Ventura County's list of locally important species are also considered "special-status."[4] According to the County's General Plan, a Locally Important Species is a plant (or animal) that is not an endangered, threatened, or rare species, but is considered by qualified biologists to be quality example or unique species within the County and region. The County's list includes plant species that are declining throughout their range and have five or fewer occurrences in Ventura County, based on Consortium of California Herbaria records and other sources. Although the City of Simi Valley is the lead agency for this project, Ventura County Locally Important Species are included as the site is currently in unincorporated Ventura County.

The status codes for special-status plants are described in **Table 2, Status Codes for Special-Status Plants**.

Table 2
Status Codes for Special-Status Plants

FEDERALLY PROTECTED SPECIES	
FE (Federal Endangered)	A species that is in danger of extinction throughout all or a significant portion of its range.
FT (Federal Threatened)	A species that is likely to become Endangered in the foreseeable future.
FC (Federal Candidate)	A species for which USFWS has sufficient information on its biological status and threats to propose it as Endangered or Threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.
STATE PROTECTED SPECIES	
CE (California Endangered)	A native species or subspecies 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.
CT (California Threatened)	A native species or subspecies 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 determined by the commission as "Rare" on or before January 1, 1985, is a "Threatened species."
CR (California Rare)	A species, subspecies, or variety of plant is rare under the Native Plant Protection Act when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become Endangered if its present environment worsens. Animals are no longer listed as Rare; all animals listed as Rare before 1985 have been listed as threatened.
CALIFORNIA RARE PLANT RANK (CRPR) (formerly CNPS Lists)	
CRPR 1A	Plants presumed extirpated in California and either rare or extinct elsewhere.
CRPR 1B	Plants rare, threatened, or endangered in California and elsewhere.
CRPR 2A	Plants presumed extirpated in California, but more common elsewhere.
CRPR 2B	Plants rare, threatened, or endangered in California, but more common elsewhere.
CRPR 3	A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.
CRPR 4	A watch list for plants that are of limited distribution in California.
CALIFORNIA NATIVE PLANT SOCIETY (CNPS) THREAT RANK	
The CNPS Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment, as follows: • 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat) • 0.2-Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) • 0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)	
LOCALLY IMPORTANT SPECIES	
VCLIP	Ventura County Locally Important Plant Species.

[4] The Ventura County Planning Division 2022 Locally Important Plant List can be found at https://docs.vcrma.org/images/pdf/planning/conservation/2022-Locally-Important-Plant-List.pdf

Survey Results

No special-status plant species that are considered to be rare, threatened, or endangered were found at the site during surveys conducted by Envicom in 2015, 2017, 2019, and 2023 or during prior surveys of the site by Psomas in May and August 2005.

Three CRPR 4 species were found during the surveys conducted by Envicom, including Catalina mariposa lily (*Calochortus catalinae*) [CRPR 4.2], Plummer's mariposa lily (*Calochortus plummerae*) [CRPR 4.2], and small-flowered morning glory (*Convolvulus simulans*) [CRPR 4.2]. Plummer's mariposa lilies were also found during surveys conducted by Psomas in May and June 2005. At the time of Psomas' surveys in 2005, the Plummer's mariposa lily was considered a rare species with a CRPR 1B.2 but is has since been downlisted with CNPS reporting it is "not as rare as initially thought."

The Catalina mariposa lily is a perennial bulbiferous herb in the lily family (Liliaceae) that occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland in portions of coastal southern California. It is common in intact and grazed scrub and herbaceous habitats throughout the site, but generally absent from previously cleared or graded areas. Bulbs of this species emerged and bloomed in large numbers estimated to be in the 10,000s in Spring 2017. The majority of the bulbs remained dormant in 2015 and 2019, when this species bloomed in lower numbers, estimated to be in the 100s in 2015, and in the 1000s and 2019 and 2023. Due to the high numbers and wide distribution over the site as well as its non-protected status, the locations of this species were not mapped during the surveys.

The Plummer's mariposa lily is a perennial bulbiferous herb in the lily family that is generally found in rocky habitats in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. It is also restricted to portions of southern California and is primarily found in the Los Angeles region. Plummer's mariposa lily is uncommon at the site and occurs primarily on ridgelines and other exposed open areas with low shrub cover. Psomas documented 360 flowering Plummer's mariposa lilies in 2005 while there were only two (2) flowering plants in 2015, none in 2017 or 2019, and 24 in 2023. The Plummer's mariposa lily is a fire-follower and can be common where it occurs after a fire. The Psomas surveys were conducted two growing seasons after the 2003 Simi Fire, which burned nearly the entire site. This may account for the greater number of blooming plants found in 2005 when compared to the 2015, 2017, 2019, and 2023 surveys. Due to its non-protected status, the locations of this species were not mapped during the surveys. This species was formerly considered a Ventura County Locally Important Plant, but it has since been removed from the County's list.

The small-flowered morning-glory is an annual herb in the morning-glory family (Convolvulaceae) that occurs on clay substrates in chaparral, coastal scrub, and valley and foothills grassland habitats. It occurs at four general locations at the site primarily in herbaceous habitats but also in open scrub, and notably in significant numbers in the understory of dense stands of non-native black mustard (*Brassica nigra*). At the time of surveys this species was considered a Ventura County Locally Important Plant, but it has since been removed from this list. The locations of this species are shown in blue hatch on Figure 4. This is an annual species with seed germination varying substantially each year depending on conditions. The number of plants observed at the site in 2017 in 2023 was estimated to be in the 1000s, and in much lower numbers in 2015 and 2019.

Potential for Occurrence Analysis – Special-Status Plant Species

An evaluation of the potential for occurrence at the site of special-status plant species known to occur in the region was undertaken through a search of the *CNPS Online Inventory of Rare and Endangered Plants, 8th ed.* (CNPS 2023) and the California Department of Fish and Wildlife's Natural Diversity Data Base (CNDDB) Rarefind 5 application (CDFW 2023) for sensitive "elements" reported within the Simi quadrangle, and eight (8) others that surround it, namely Calabasas, Fillmore, Moorpark, Newbury Park, Piru, Santa Susana, Thousand Oaks, and Val Verde. CRPR 4 species and Ventura County Locally Important Plant Species were not included in the analysis. Many of the special-status plant species known to occur in the region are precluded from occurring at the site due to lack of suitable habitat, and given the intensity and correct timing of the 2015, 2017, 2019, and 2023 springtime field surveys, other than the CRPR 4.2 species discussed above special-status species are considered absent from the site (see **Appendix 3** for additional information).

2.3.3 WILDLIFE SPECIES

Wildlife Observed

Many wildlife species were observed during biological surveys of the site some of which are common or relatively common and others that are uncommon or rare in the region. A list of the species observed during surveys by Envicom and/or Cooper Ecological Monitoring is provided as **Appendix 4**. In addition to the species observed, many additional species can be expected to utilize habitats at the site for cover, foraging, and reproduction. Also, in general, the species observed include those that are more easily detected during daytime surveys. Several vertebrate species including many species of reptiles, birds, mammals can be expected to inhabit and reproduce at the site, and a wide range of additional species can be expected to utilize the site's resources routinely, such as foraging raptors, and medium to large-sized mammals, such as coyotes, bobcats, and skunks. Large burrows potentially attributable to coyotes were observed along the steep banks of the washes in the northeastern portion of the site, and the site's expansive area of open scrub and herbaceous habitats, which are contiguous with similar habitats to the west, north, and northeast, are highly suitable for foraging raptors. Numerous small mammal burrows were observed throughout the site. Also of note were erodable rock substrates containing numerous small cavities in the southern portion of the site, which were inhabited by nesting rock wrens. These cavities may provide refuge for many other species as well. The bird species observed during the 2015, 2017, 2019, and 2023 surveys consisted primarily of year-round residents, summer residents, and potential migrants. Several species of birds, particularly those that inhabit coastal scrub, non-native grassland, or sparse riparian scrub habitats, are expected to nest at the site in any given year.

Special-Status Wildlife Species

For the purposes of this report, special-status wildlife species are those species that are listed, proposed for listing, or that meet the criteria for listing as Endangered or Threatened under the FESA or CESA; and those that are listed on the CDFW's Special Animals list with a designation of SSC (California Species of Special Concern) or CFP (California Fully Protected). Mandatory special consideration or protection of these species is required pursuant to the Federal Endangered Species Act, the State Endangered Species Act, and/or the California Environmental Quality Act (CEQA). The status codes for special-status wildlife are described in **Table 3, Status Codes for Special-Status Wildlife**.

Table 3
Status Codes for Special-Status Wildlife

FEDERALLY PROTECTED SPECIES	
FE (Federal Endangered)	A species that is in danger of extinction throughout all or a significant portion of its range.
FT (Federal Threatened)	A species that is likely to become endangered in the foreseeable future.
FC (Federal Candidate)	A species for which USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.
FSC (Federal Species of Concern)	A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "Category-2 Candidate" species.
STATE PROTECTED SPECIES	
CE (California Endangered)	A native species or subspecies 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.
CT (California Threatened)	A native species or subspecies 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 determined by the commission as "rare" on or before January 1, 1985, is a "threatened species."
SSC (California Species of Special Concern)	Animals that are not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.
CFP (California Fully Protected)	This designation originated from the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians, reptiles, and birds. Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. California Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.
SA (Special Animal)	Species on CDFW's Special Animals list that is not listed under the FESA or CESA, or as Species of Special Concern or California Fully Protected.

Federal and State Listed Species

The only species listed under the Federal or State Endangered Species Acts that has been observed at the site is the California gnatcatcher (*Polioptila californica*). The California gnatcatcher is a small non-migratory blue-gray songbird that occupies coastal scrub habitats. It is listed as Threatened under the Federal Endangered Species Act and is considered a Species of Special Concern by the State of California.

USFWS protocol presence/absence surveys for the California gnatcatcher were conducted in Spring 2015 and Spring 2017 by Cooper Ecological Monitoring and by TW Biological Services in Spring 2023. Cooper Ecological Monitoring detected two (2) California gnatcatchers during the 2015 protocol survey and no California gnatcatchers during the 2017 protocol survey. TW Biological Services observed a breeding pair including an adult male and female and two juvenile California gnatcatchers during the 2023 protocol

survey. The methods and results of the protocol surveys are discussed in separate reports by Cooper Ecological Monitoring and TW Biological Services. [5, 6, 7.]

As summarized in the 2015 report, "the survey determined that the California Gnatcatcher is present at the site, with an adult male detected on each visit, and a second bird, either an adult female or a young-of-the-year, seen on the last of six visits. While I observed the male engaged in likely territorial behavior (on the final visit only), I observed no nest-building or other breeding behavior by the end of the survey." All detections during the 2015 protocol survey were made in areas of intact (i.e., ungrazed, and with a dense canopy structure) coastal sage scrub in the southern and southeastern portions of the site, as well as intact coastal sage scrub located off-site to the southeast. As stated, no California gnatcatchers were detected during the 2017 protocol survey. The 2017 survey report concluded there were roughly 11 acres of intact, ungrazed/unburned scrub suitable for California gnatcatcher at the site, located on two separate slopes along the southern boundary of the site, separated by a debris basin.

As summarized in the 2023 report, "A single coastal California gnatcatcher pair was detected onsite during the 2023 surveys. This pair was located on the ridge along the southern boundary of the property, just north of the Avalon apartments. One or both adults were observed on each of the six survey dates and the pair was observed with juveniles on June 2." The report also identifies approximately 14 acres of suitable coastal California gnatcatcher habitat at the following locations: "a ridge along the southern border just north of the Avalon apartments, a west facing slope in the southeastern corner, an east facing slope along the western border, an east facing slope in the northeast corner, and a bench in the canyon bottom above the incised drainage in the northeast part of the site." These patches of suitable habitat are shown on maps in the 2023 survey report.

In addition to the detections by Cooper Ecological Monitoring and TW Biological Services, Envicom observed one (1) California gnatcatcher in August 2015, two (2) in July 2017, two (2) in October 2017, three (3) in May 2019, and three (3) in May 2023 during biological surveys of the site. The locations of the detections by Cooper Ecological Monitoring, TW Biological Services, and Envicom are shown on Figure 4. The observations in May 2019 were made incidentally during botanical surveys and as this species was present at the site in 2019 during its breeding period and no protocol survey was conducted the possibility that this species nested at the site in 2019 cannot be ruled out. The observations by Envicom in May 2023 included a male in breeding plumage foraging with two other birds, likely an adult female and a juvenile. Most of these observations were in the relatively intact coastal sage scrub in the southern portion of the property, in the same general location where the birds were detected during the 2015 protocol survey, as well as in coastal sage scrub in the western portion of the site. Photos of two of the California gnatcatchers detected in 2017, as well as a representative photo of the coastal scrub habitat where they were observed are shown on **Plate 3, Photos of Special-Status Wildlife Species**.

There were no prior records of California gnatcatcher for the site in the CNDDB. Also, California gnatcatchers were not observed during protocol surveys conducted over ten visits by Psomas between October 2005 and April 2006.[8]

[5] Cooper Ecological Monitoring. *Protocol survey for California gnatcatcher Polioptila californica at "North Canyon Ranch,"* June 5, 2015.
[6] Cooper Ecological Monitoring. *Protocol survey for California gnatcatcher Polioptila californica at "North Canyon Ranch,"* May 18, 2017.
[7] TW Biological Services. *Presence/Absence Surveys for Coastal California Gnatcatcher on the North Canyon Ranch Residential Project, Ventura County, California. Permit Number TE-19843C-0.* July 11, 2023.
[8] Psomas, North Canyon Ranch Residential Development Bio Constraints and Opportunities, December 2006.

Photo 3A – One of the California gnatcatchers observed at the site in July 2017 is shown. The California gnatcatcher is listed as Threatened under the Federal Endangered Species Act and is also a California Species of Special Concern.

Photo 3B – California gnatcatchers were observed in coastal sage scrub habitats such as the scrub shown in this photo in 2015, 2017, 2019, and 2023.

Photo 3C – Western spadefoot bred in a seasonal, or temporary, pond near the southern boundary of the site in 2017. The western spadefoot is a California Species of Special Concern. A few of the several hundred spadefoot tadpoles that were observed in the pond are shown in this photo.

Photo 3D – The temporary pond where western spadefoot bred at the site is shown. This photo was taken in early April 2017 and the pond was dry by May 2017. The pond appears to be man-made or a result of former grading which created at artificial berm along its western edge.

Photos of Special-Status Wildlife Species at North Canyon Ranch Project Site

The site is nearly entirely within USFWS-designated Critical Habitat for the California gnatcatcher (specifically Ventura County and Los Angeles County Unit 13). A coarse map showing the extent of Critical Habitat at the site and surrounding areas north of Simi Valley generated from the USFWS Critical Habitat Mapper is provided in Appendix 1. Critical habitat is a term in the Federal Endangered Species Act that identifies geographic areas containing physical or biological features essential for the conservation of a Threatened or Endangered species. Critical habitat is considered essential for the long-term conservation and recovery of the species. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Federal agencies that undertake, fund or permit activities that may affect critical habitat are required to consult with the USFWS to ensure such actions do not adversely modify or destroy designated critical habitat, but the designation does not affect purely private or state actions on private or state lands, nor require private or other non-federal lands to be managed for conservation.

California Species of Special Concern

Seven species that are considered Species of Special Concern by the State of California have been observed at the site. These species include the western spadefoot (*Spea hammondii*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), yellow warbler (*Setophaga petechia*), Vaux's swift (*Chaetura vauxi*), northern harrier (*Circus hudsonius*), and grasshopper sparrow (*Ammodramus savannarum*). The California gnatcatcher is also a Species of Special Concern.

The western spadefoot is a terrestrial toad, which occurs in grasslands, oak woodlands, coastal sage scrub, and chaparral. They use temporary pools for breeding, but they will also readily breed in artificial water bodies such as cattle ponds. This species bred in a small temporary pond near the southern boundary of the site in Spring 2017. Several hundred western spadefoot tadpoles were observed at the pond in March and April 2017, and numerous young toadlets, which had metamorphosed from tadpoles, were also observed buried in the sandy soils and moving through the scrub around the perimeter of the pond in April and May 2017. This species is only dependent upon aquatic habitats such as the small temporarily pond for breeding, and otherwise resides in terrestrial habitats. The juvenile spadefoot toads will have dispersed into the open grassland and scrub habitats at the site, where they will have become cryptic occupying refugia such as burrows and conducting most movements at night. The amount and timing of rainfall in 2017 was adequate for water to remain in the pond for a sufficient period to support the breeding requirements of this species. The pond did not fill for any notable duration in 2015 or 2019, which were lower rainfall years. It did fill for an extended period in 2023, and it was visited in March, April, May, and June 2023 but there were no spadefoot tadpoles. Based on review of historical aerials, this pond appears to be man-made or to have been induced by former landform modifications at the site. The western detention basin at the site also pools in some years and may also be suitable breeding habitat for this species, although spadefoot tadpoles have not been observed in the western detention basin. No significant pooling of any duration has been observed in the eastern detention basin, including in 2017 or 2023. There is no other potential spadefoot breeding habitat on-site. Photos of the western spadefoot tadpoles and the temporary pond taken in April 2017 are provided on Plate 3, Photos of Special-Status Wildlife Species.

The coastal whiptail is an active, slim-bodied diurnal lizard that typically forages in openings near vegetative cover. It is found in a variety of habitats, but primarily in hot and dry areas with sparse foliage. A few of these lizards were observed in open scrub habitats during surveys of the site in 2015, 2017, 2019, and 2023. This species is potentially present throughout much of site, especially within and near scrub habitats.

The yellow warbler is small migratory songbird that generally occupies riparian vegetation in close proximity to water along streams and in wet meadows. Yellow warblers were detected during surveys of the site in May 2015 and May 2017. Due to the lack of well-developed riparian habitats at the site, these individuals were probably migrants resting and/or foraging temporarily. This species would probably not nest in the riparian scrub at this particular site.

The Vaux's swift is a small, aerial forager, which is a commonly seen as migrant in the region. Vaux's swifts were observed flying over the site in 2017. This species may forage overhead during migration but is not expected to roost or breed at the site.

The grasshopper sparrow is small, solitary bird, which is rare and declining in the region and is typically found on dry ground in large expanses of dense tall grass with scattered scrubs or weeds. A grasshopper sparrow was heard vocalizing on two separate occasions in weedy non-native and native herbaceous habitats at the same location in the southwestern portion of the site in April 2023. This species may occur as a resident or may have been passing through during migration. This species could potentially nest at the site.

The northern harrier, which is a long-winged, low-flying migratory hawk, was observed at the site in 2005 or 2006, as well as in 2017. This species is an uncommon migrant and winter visitor to extensive open freshwater and saltwater marshes, grasslands, and agricultural fields in the Los Angeles region. This species may forage at least occasionally at the site as a winter visitor or migrant. As this species typically nests on the ground in marshes, it would not nest at the site. Also, breeding populations have been virtually extirpated from the coastal lowlands of the Los Angeles region. However, the site does provide good foraging habitat for this species, as well as several other common species of diurnal and nocturnal raptors that can be expected to occur.

Special Animals

A few additional species on CDFW's Special Animals list have been observed at the site by Envicom and/or Cooper Ecological Monitoring, including four birds on CDFW's Watch List: California horned lark (*Eremophila alpestris actia*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipter striatus*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). Also, Bell's sage sparrow (*Artemisiospiza belli*), which is also on CDFW's Watch List was observed just west of the site and could also be present at the site. California horned lark, southern California rufous-crowned sparrow, and the Bell's sage sparrow were observed nesting. Other Special Animals observed at the site include rufous hummingbird (*Selasphorus rufus*) [SA], Costa's hummingbird (*Calypte costae*) [SA], and Lawrence's goldfinch (*Spinus lawrencei*) [SA].

Other than the western spadefoot, the locations where Species of Special Concern and other Special Animals were observed were not mapped. However, most of these species could occur throughout or at least at many locations at the site.

Potential for Occurrence – Special-Status Wildlife Species

A number of additional special-status wildlife species that were not observed during the surveys have potential to occur at the site and in the vicinity of the site, even if in some cases only infrequently, in transit, or on a temporary basis. An analysis of the potential for occurrence of special-status wildlife at the site is presented in **Appendix 5**, which includes the species' protected status, primary habitat associations, and an assessment of their potential for occurrence (Observed, Potentially Present, Presumed Absent, or Absent). The potential for occurrence was undertaken through research of the CDFW Natural Diversity Database

(CDFW 2023) using the Rarefind 5 application for special-status "elements" on the USGS 7.5' Simi quadrangle and eight (8) adjacent quadrangles. The potential for occurrence analysis provides a speculative assessment of the potential for the occurrence of special-status animals on the basis of their known distribution and habitat requirements. Species listed under the FESA or CESA, Species of Special Concern, and California Fully Protected Species were included in the analysis. In addition to the western spadefoot [SSC], coastal whiptail [SSC], California gnatcatcher [FT, SSC], northern harrier [SSC], Vaux's swift [SSC], grasshopper sparrow [SSC], and yellow warbler [SSC], which were observed at the site, the following 22 special-status animals, including two (2) invertebrates, five (5) reptiles, seven (7) birds, and eight (8) mammals were determined to have at least some potential to occur at the site with varying probabilities ranging from high to very low depending on the species:

Invertebrates

- Crotch bumble bee (*Bombus crotchii*) [Candidate CE]
- Riverside fairy shrimp (*Streptocephalus woottoni*) [FE]

Reptiles

- California glossy snake (*Arizona elegans occidentalis*) [SSC]
- California legless lizard (*Anniella* sp.) [SSC]
- Coast horned lizard (*Phrynosoma blainvillii*) [SSC]
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*) [SSC]
- Southern California legless lizard (*Anniella stebbinsi*) [SSC]

Birds

- American peregrine falcon (*Falco peregrinus anatum*) [CPF]
- Bank swallow (*Riparia riparia*) [CT]
- Black swift (*Cypseloides niger*) [SSC]
- Burrowing owl (*Athene cunicularia*) [SSC]
- Golden eagle (*Aquila chrysaetos*) [CFP]
- Loggerhead shrike (*Lanius ludovicianus*) [SSC]
- White-tailed kite (*Elanus leucurus*) [CFP]

Mammals

- American badger (*Taxidea taxus*) [SSC]
- Big free-tailed bat (*Nyctinomops macrotis*) [SSC]
- Mountain lion (*Puma concolor*) [Candidate CT - Southern California / Central Coast ESU]
- Pallid bat (*Antrozous pallidus*) [SSC]
- San Diego black-tailed jackrabbit (*Lepus californicus bennetii*) [SSC]
- San Diego desert woodrat (*Neotoma lepida*) [SSC]
- Western mastiff bat (*Eumops perotis californicus*) [SSC]
- Western red bat (*Lasiurus blossevillii*) [SSC]

There are three potentially occurring wildlife species listed under the FESA or CESA, including the bank swallow, Riverside fairy shrimp, and mountain lion. The bank swallow has limited potential to forage rarely and temporarily over the site, but it would not reproduce at the site as the site does not contain preferred nesting habitat. However, the potential for occurrence of this species is low, even during migration because of its rarity. The federally Endangered Riverside fairy shrimp has low potential to occur at the small temporary pond at the site. Based on a review of historical aerials, the temporary pond is a relatively recent development and may be man-made or may have been induced by former land modifications at the site. Therefore, the pond is not expected to contain fairy shrimp. Also, with respect to water depth, ponding duration, and substrate characteristics the pond is probably not suitable for this species. However, the Riverside fairy shrimp occurs in large temporary ponds approximately 4 to 5 miles southwest of the site and could have been introduced to this pond by migratory birds, although the probability of this is low. The mountain lion is expected to forage within and move through the Project site occasionally.

The Crotch's bumble bee is currently a Candidate for listing as Endangered under the CESA. The site contains suitable habitat for this species.

The potential use of the site by special-status wildlife species also includes a few species of reptiles, birds, and mammals listed as California Fully Protected or Species of Special Concern by the State of California. Many of these species would occur only rarely or occasionally. They include residents, migrants, and winter visitors that may forage over the site, such as the American peregrine falcon, black swift, burrowing owl, golden eagle, white-tailed kite, and all of the bat species. Some of these species may also roost temporarily at the site. Several of the other special-status species with potential to occur on-site may be year-round or summer residents that have all or part of their home ranges or territories on the site and may routinely use all or a portion of the site to meet their life history requirements for refuge, breeding and/or foraging. These species include the California glossy snake, coast horned lizard, southern California legless lizard, silvery legless lizard, coast patch-nosed snake, loggerhead shrike, San Diego black-tailed jackrabbit, San Diego desert woodrat, and American badger. For example, species with small home ranges or territories such as the coast horned lizard may spend their entire life within the confines of the site while other species such as the American badger may use the site for only a portion of their foraging habitat. Some of these species would have the potential for their entire home range or territory to be within the site; in this case the California glossy snake, coast horned lizard, coast patch-nosed snake, grasshopper sparrow, loggerhead shrike, silvery legless lizard, southern California legless lizard, and San Diego desert woodrat. However, these and other potentially occurring special-status species such as the American badger could also use adjacent off-site habitat within the surrounding area as resident and foraging habitat. For additional information, see Appendix 5.

2.3.4 WILDLIFE MOVEMENT

Habitat linkages are physical connections that allow wildlife to move between areas of suitable habitat in both intact as well as fragmented and disturbed landscapes. They can be critical at both the local and regional scale. Habitat linkages are necessary for wildlife not only to access essential resources, such as water sources or habitat for foraging, breeding, or cover, but also for dispersal and migration, to ensure the mixing of genes between populations, and so wildlife can respond and adapt to environmental stress, and thus are necessary to maintain healthy ecological and evolutionary processes. Wildlife corridors are areas of open space of sufficient width to permit the movement of larger, mobile species to move from one major open space region to another. Regional habitat linkages are larger wildlife corridors or regions of connectivity that are important for movement of multiple species and maintenance of ecological processes at a regional scale.

Wildlife crossings are generally small, narrow areas allowing wildlife to pass through an obstacle or barrier, such as a roadway to reach another patch of habitat. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, or open areas with little vegetative cover. Examples of wildlife crossings include culverts, drainage pipes, underpasses, and tunnels.

Habitat loss and fragmentation are the leading threats to biodiversity, both globally and in southern California. Efforts to combat these threats include identifying and conserving large "core" areas of habitat and well as habitat linkages between them.

Based on a review of the following documents the project site is not within an area that has been identified as important to wildlife movement, such as a regional-scale habitat linkage or a wildlife movement corridor:

- *City of Simi Valley 2030 General Plan Update* (June 2012).
- *South Coast Missing Linkages Project: A Linkage Design for the Santa Monica Mountains-Sierra Madre Connection* (Penrod, K. et. al., 2006).
- *California Essential Connectivity Project: A Strategy for Conserving a Connected California* (February 2010).

The nearest area identified as an important wildlife movement corridor is approximately 1.5 miles to the west of the site.

The potential importance of the project site to wildlife movement was also evaluated in the field and by reviewing recent aerial photographs of the site and the surrounding area. The project site provides vegetative cover and native habitats suitable for the movement for wildlife, and some wildlife species likely use the ridgelines and ephemeral drainages at the site for local movements and may move through the site to reach the water at the small ephemeral pond and western detention basin, when those features contain water. Also, western spadefoot toads can be expected to move through the site to access breeding habitats including the ephemeral pond and perhaps also the western detention basin. There are reported occurrences of western spadefoot in the CNDDB reproducing in pools and cattle ponds to the north and northwest of the site, so there is a population of this species in this area of the Santa Susana Mountains and movement of spadefoot can be expected to occur between the suitable foraging and breeding habitats on-site and in the surrounding area. It is also possible that the site may be used or may be used in the future by the Federally Endangered California gnatcatcher for dispersal movements to suitable coastal scrub habitats to the west and north, given its presence on-site and off-site to the east.

Otherwise, the site does not contain particularly important habitats for forage, cover, or reproduction that are not also available in the surrounding area, and the project is situated adjacent to the northern margin of the City of Simi Valley and is not situated within a habitat bottleneck. Therefore, the project would not fragment larger areas of habitat. The northern portion of the site would remain undeveloped and undeveloped natural habitats to the west, north, and northeast of the site would continue to provide habitat for wildlife and opportunities for wildlife movement through the area. Although they may potentially be used for local movements, the ephemeral drainages at the site are not regionally important wildlife movement corridors as the drainages terminate at the southern end of the property at detention basins, which then flow into stormdrains.

3.0 REQUIRED COUNTY ISLAND ANNEXATIONS

This section discusses the results of a literature review and site visit to nine (9) County of Ventura "island" areas proposed for annexation to the City of Simi Valley. Other than annexation, no development is currently proposed at these properties and any proposed future development would be subject to further environmental review. A description of general site conditions of each of the County Islands is provided below. Most of these areas are entirely or nearly entirely developed within single-family residence and landscaping, while some contain some natural habitat. The nine County Islands including the following:

- Island Area 1 (Anderson Drive)
- Island Area 2 (Sharp Road)
- Island Area 3 (Ditch Road)
- Island Area 4 (Township Avenue)
- Island Area 5 (Flood Street)
- Island Area 6 (Walnut Street)
- Island Area 7 (Vista Lago Drive)
- Island Area 8 (Sinaloa Lake)
- Island Area 9 (N. Belhaven Avenue)

The total acreage and number of parcels associated with each of these areas is provided on **Figure 5, Required County Island Annexations (1 – 9)**.

3.1 METHODS

The following sources were reviewed on June 20, 2023 to determine if special-status or sensitive biological resources have been reported at the annexation properties:

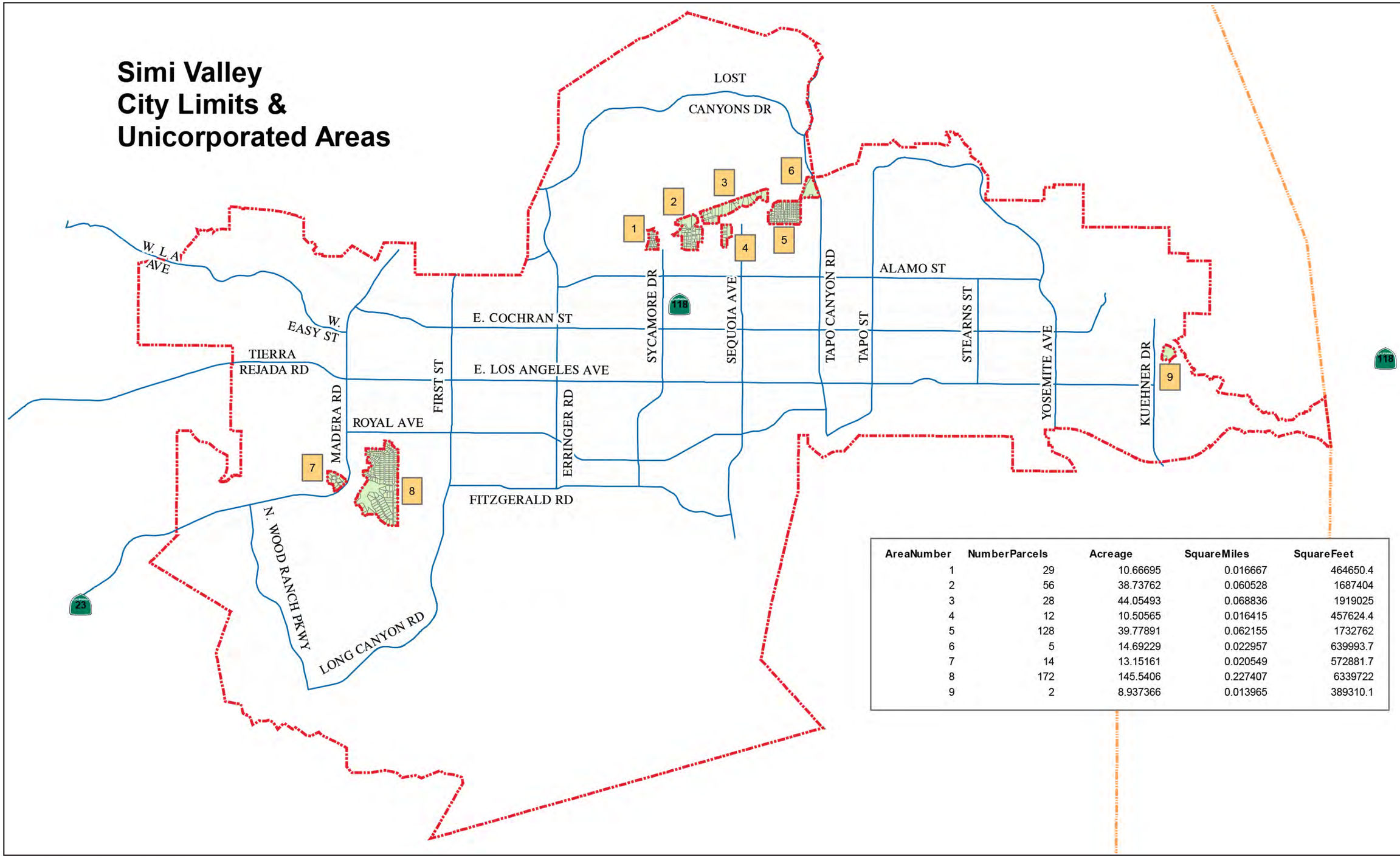
- *Biogeographic Information and Observation System,* CDFW.
- *CNDDB Rarefind 5* report, CDFW.
- *National Wetlands Inventory,* USFWS.
- *Critical Habitat Mapper*, USFWS.

The sites were visited in February 2021 by a biologist from Envicom. A walk-over was performed of Island Area 9. The remaining properties were not directly accessed but rather were viewed to the extent possible with binoculars from good vantage points from adjacent streets or properties. Several photographs were taken during the site visit.

3.2 GENERAL SITE CONDITIONS AND POTENTIAL FOR OCCURRENCE OF SPECIAL-STATUS SPECIES

The general site conditions and the potential for occurrence of special-status plants and animals to occur at each of the Island Areas is presented below, which is based on the species' known distribution and habitat requirements. For more information on potential for occurrence of special-status species see the potential for occurrence analysis in Appendix 3 and Appendix 5.

Simi Valley City Limits & Unicorporated Areas



AreaNumber	NumberParcels	Acreage	SquareMiles	SquareFeet
1	29	10.66695	0.016667	464650.4
2	56	38.73762	0.060528	1687404
3	28	44.05493	0.068836	1919025
4	12	10.50565	0.016415	457624.4
5	128	39.77891	0.062155	1732762
6	5	14.69229	0.022957	639993.7
7	14	13.15161	0.020549	572881.7
8	172	145.5406	0.227407	6339722
9	2	8.937366	0.013965	389310.1

Source: City of Simi Valley Planning Department, 2019.

Island Area 1 (Anderson Drive)

Island Area 1 consists entirely of single-family residential development and public streets. The vegetation consists of ornamental landscaping typical of residential properties in the area. There are no undeveloped parcels, waterbodies, or native habitat. No special-status or sensitive biological resources have been reported to occur or expected to inhabit Island Area 1. There is a channelized stream directly west of Island Area 1, which the National Wetlands Inventory classifies as riverine habitat. There is natural habitat including coastal sage scrub and herbaceous habitats to the north of Island Area 1, and additional urban development to the east and south. As Island Area 1 consists entirely of urban development, including single-family residential development, ornamental landscaping, and public streets, there is no reasonable potential for occurrence of special-status or sensitive biological resources.

Island Area 2 (Sharp Road)

The southern portion of Island Area 2 south of Sharp Road consists entirely of single-family residential development and public streets. There are two vacant parcels in this area, but they are small ruderal lots without any native habitat. Two of the larger more rural parcels within Island Area 2 to the north of Sharp Road (APNs 6110070175 and 6110070455) contain some slopes with small remnant patches of disturbed coastal scrub as well as some fields of non-native grass-forbs, which appear to be routinely cut or mowed. No special-status or sensitive plants, animals, or natural communities have been reported or are expected to occur within Island Area 2. There is a channelized stream or ditch that runs parallel to Sharp Road, but it does not support significant riparian habitat. The National Wetlands Inventory classifies this channelized drainage as riverine habitat. There is natural habitat including coastal sage scrub and herbaceous habitats to the north of Island Area 2, and residential development to the west, east and south.

Given there are a few acres of disturbed coastal scrub and non-native grass-forb habitats at APNs 6110070175 and 6110070455, which are contiguous with extensive areas of natural habitats to the north, the following special-status animals have potential to occur in or while foraging over natural habitats at APNs 6110070175 and 6110070455, with varying probabilities ranging from moderate to very low. Special-status plants are not expected to occur in these disturbed habitats due to prior vegetation clearance and maintenance.

<u>Special-Status Wildlife</u>

Crotch bumble bee (*Bombus crotchii*) [Candidate CE]
California gnatcatcher (*Polioptila californica*) [CT, SSC]
Western spadefoot (*Spea hammondii*) [SSC]
California glossy snake (*Arizona elegans occidentalis*) [SSC]
Coast horned lizard (*Phrynosoma blainvillii*) [SSC]
Coast patch-nosed snake (*Salvadora haxalepis virgultea*) [SSC]
Coastal whiptail (*Aspidoscelis tigris stejnegeri*) [SSC]
Black swift (*Cypseloides niger*) [SSC]
Vaux's swift (*Chaetura vauxi*) [SSC]
Loggerhead shrike (*Lanius ludovicianus*) [SSC]
Northern harrier (*Circus cyaneus*) [SSC]
White-tailed kite (*Elanus leucurus*) [CFP]
Big free-tailed bat (*Nyctinimops macrotis*) [SSC]
Pallid bat (*Antrozous pallidus*) [SSC]
Western mastiff bat (*Eumops perotis californicus*) [SSC]

There is no reasonable potential for occurrence of special-status or sensitive biological resources throughout the remainder of Island Area 2, which consists of urban development, ornamental landscaping, and public streets.

Island Area 3 (Ditch Road)

The southwestern portion of Island Area 3 consists of single-family residential development and ornamental landscaping typical of residential properties in the area. The remainder of Island Area 3 consists of relatively large rural parcels on slope terrain, which contain single-family residences and some large ornamental trees. Some of these parcels have been entirely or nearly entirely cleared of native vegetation, but there are still several acres of relatively intact and disturbed coastal sage scrub as well as non-native grassland remaining in Island Area 3. As viewed by binoculars from Ditch Road, the coastal sage scrub in this area is comprised of California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), California brittlebush (*Encelia california*), California sagebrush (*Artemisia californica*), and bush mallow (*Malacothamnus fasciculatus*). No special-status or sensitive plants, animals, or natural communities have been reported to occur at Island Area 3. There is a channelized stream or ditch that runs parallel to unpaved Ditch Road, which does not support significant riparian habitat. The National Wetlands Inventory classifies this channelized drainage as riverine habitat. There are natural habitats including coastal sage scrub and herbaceous vegetation to the north and east of Island Area 3, and residential development to the west and south.

Given there are several acres of natural habitats, which are contiguous with extensive areas of natural habitats to the north and east, the following special-status plant and animals have potential to occur at native habitats at Island Area 3 with varying probabilities ranging from moderate to very low:

<u>Special-Status Plants</u>

Braunton's milkvetch (*Astragalus brauntonii*) [FE, CRPR 1B.2]
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) [FC/CE]
Chaparral nolina (*Nolina cismontana*) [CRPR 1B.2]
Gerry's curly-leaved monardella (*Monardella sinuata* ssp. *gerryi*) [CRPR 1B.2]
Malibu baccharis (*Baccharis malibuensis*) [CRPR 1B.1]
Mesa horkelia (*Horkelia cuneata* var. *puberula*) [CRPR 1B.1]
Ojai navarretia (*Navarretia ojaiensis*) [CRPR 1B.1]
Parry's spineflower (*Chorizanthe parryi* var. *parryi*) [CRPR 1B.1]
Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*) [CRPR 1B.2]
Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*) [CRPR 1B.2]
White rabbit-tobacco (*Pseudognaphalium leucocephalum*) [CRPR 2B.2]

<u>Special-Status Wildlife</u>

Crotch bumble bee (*Bombus crotchii*) [Candidate CE]
California gnatcatcher (*Polioptila californica*) [CT, SSC]
Western spadefoot (*Spea hammondii*) [SSC]
California glossy snake (*Arizona elegans occidentalis*) [SSC]
Coast horned lizard (*Phrynosoma blainvillii*) [SSC]
Coast patch-nosed snake (*Salvadora haxalepis virgultea*) [SSC]
Coastal whiptail (*Aspidoscelis tigris stejnegeri*) [SSC]
Black swift (*Cypseloides niger*) [SSC]
Vaux's swift (*Chaetura vauxi*) [SSC]

Loggerhead shrike (*Lanius ludovicianus*) [SSC]
Northern harrier (*Circus cyaneus*) [SSC]
White-tailed kite (*Elanus leucurus*) [CFP]
San Diego desert woodrat (*Neotoma lepida*) [SSC]
Big free-tailed bat (*Nyctinimops macrotis*) [SSC]
Pallid bat (*Antrozous pallidus*) [SSC]
Western mastiff bat (*Eumops perotis californicus*) [SSC]
Western red bat (*Lasiurus blossevillii*) [SSC]

Island Area 4 (Township Avenue)

Island Area 4 consists of single-family residential development and public streets although the largest property, which is in the northeast portion of Island Area 4, contains a few rows of citrus trees as well as a ruderal field. The vegetation consists of ornamental landscaping typical of residential properties in the area. There are no waterbodies or native habitats. No special-status or sensitive biological resources have been reported to occur or are expected to inhabit Island Area 4. Island Area 4 is surrounded on all sides by residential development. Given that Island Area 4 lacks native habitat and consists largely of single-family residential development and public streets, as well as because the orchard and ruderal field are relatively small and surrounded by urban development there is no reasonable potential for occurrence of special-status or sensitive biological resources.

Island Area 5 (Flood Street)

Island Area 5 consists entirely of single-family residential development, public streets, and ornamental landscaping typical of residential properties in the area. There are no undeveloped parcels, waterbodies, or native habitat. No special-status or sensitive biological resources have been reported to occur or expected to inhabit Island Area 5. There is a large, channelized stream directly to the east of Island Area 5, which the National Wetlands Inventory classifies as freshwater emergent wetland habitat. There is natural habitat including coastal sage scrub and herbaceous vegetation to the north of Island Area 5, and additional urban development to the west, east, and south. As Island Area 5 consists entirely of urban development, including single-family residential development, ornamental landscaping, and public streets, there is no reasonable potential for occurrence of special-status or sensitive biological resources.

Island Area 6 (Walnut Street)

Island Area 6 consists predominately of a large, ruderal field. There are some structures and rows of trees concentrated in the southcentral portion of the property. There are some native coast live oak trees on this property, which primarily occur along roadsides, but otherwise there is no native habitat. Although some special-status birds and bats could forage and roost temporarily at Island Area 6, no special-status or sensitive biological resources have been reported to occur or expected to inhabit Island Area 6. There is a large, channelized stream directly to the west of Island Area 6, which the National Wetlands Inventory classifies as freshwater emergent wetland habitat, but this section of the stream does not contain significant riparian habitat. There is residential development to the west, east, and south, and riparian and disturbed scrub and herbaceous habitats to the north of Island Area 6.

Given Island Area 6 consists of a large, ruderal field at the urban-wildland interface, which includes some large trees including some native trees, as well as a stream, disturbed native scrub, and riparian habitat adjacent to it, the following special-status animals have potential to occur in native habitats at Island Area 6 with varying probabilities ranging from moderate to very low (there is no potential for occurrence of special-status plants at the site):

Special-Status Animals

Burrowing owl (*Athene cunicularia*) [SSC]
Loggerhead shrike (*Lanius ludovicianus*) [SSC]
Northern harrier (*Circus cyaneus*) [SSC]
Vaux's swift (*Chaetura vauxi*) [SSC]
White-tailed kite (*Elanus leucurus*) [CFP]
Big free-tailed bat (*Nyctinimops macrotis*) [SSC]
Pallid bat (*Antrozous pallidus*) [SSC]
Western mastiff bat (*Eumops perotis californicus*) [SSC]
Western red bat (*Lasiurus blossevillii*) [SSC]

Island Area 7 (Vista Lago Drive)

Island Area 7 consists of single-family residential development and public streets. The vegetation includes of ornamental landscaping typical of residential properties in the area, including many large trees. There are no undeveloped parcels, and no waterbodies or native habitat. No special-status or sensitive biological resources have been reported to occur or are expected to inhabit Island Area 7. Island Area 7 is surrounded on three sides by residential development, and it is bordered on the southeast by Madera Road. There is a golf course on the opposite side of Madera Road. As Island Area 7 consists entirely of urban development, including single-family residential development, ornamental landscaping, and public streets, there is no reasonable potential for occurrence of special-status or sensitive biological resources.

Island Area 8 (Sinaloa Lake)

Island Area 8 consists predominately of single-family residential development, public streets, and ornamental landscaping typical of residential properties in the area, and it also contains private Sinaloa Lake reservoir, which is approximately 22 acres. The reservoir was not accessed during the site visit, although recent aerial imagery of the reservoir was reviewed on Google Earth. There is a walking path around the reservoir, and a dam along its western edge. The National Wetlands Inventory classifies the reservoir as freshwater pond habitat and a stream extending from the southwestern end of the reservoir as riverine habitat. Much of the lake and stream appear to be bordered by riparian habitat and may also be bordered in some areas by wetland habitat. There are also some undeveloped upland areas adjacent to the reservoir with several large trees. There may be native oak trees in this area, but this has not been confirmed. No special-status or sensitive biological resources have been reported to occur at Sinaloa Lake or at residential areas within Island Area 8, although the least Bell's vireo, a bird that is listed as Endangered under FESA and CESA, has been reported in riparian habitats approximately 0.3 miles southwest of Sinaloa Lake as well as along the Arroyo Simi, which is approximately 1 ¼ miles north of Sinaloa Lake. This species has potential to occur in riparian habitats surrounding the lake. No special-status or sensitive biological resources are expected to inhabit any of the residential properties within Island Area 8. There is a golf course to the west of Sinaloa Lake. Otherwise, Island Area 8 is surrounded on all sides by residential development.

The following special-status animals have potential to occur at the lake and associated riparian habitats at Island Area 8, with varying probabilities ranging from moderate to very low (there is no potential for occurrence of special-status plants at the site):

Special-Status Animals

Bank swallow (*Riparian riparia*) [CT]
Least Bell's vireo (*Vireo bellii pusillus*) [FE, CE]

Southwestern willow flycatcher (*Empidonax trailii extimus*) [FE, CE]
Western yellow-billed cuckoo (*Coccyzus americanus* spp. *occidentalis*) [FT, CE]
Two-striped garter snake (*Thamnophis hammondii*) [SSC]
Western pond turtle (*Actinemys marmorata*) [SSC]
Tricolored blackbird (*Agelaius tricolor*) [CT]
Summer tanager (*Piranga rubra*) [SSC]
Yellow warbler (*Setophaga petechia brewsteri*) [SSC]
Western red bat (*Lasiurus blossevillii*) [SSC]

There is no reasonable potential for occurrence of special-status or sensitive biological resources throughout the remainder of Island Area 8, which consists of urban development, ornamental landscaping, and public streets.

Island Area 9 (N. Belhaven Avenue)

Island Area 9 is an undeveloped hill with native chaparral, coastal scrub, and herbaceous habitats as well as numerous large sandstone outcrops. Some of the more common native shrubs at the site include chamise (*Adenostoma fasciculatum*), laurel sumac (*Malosma laurina*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), chaparral yucca (*Hesperoyucca whipplei*), yerba santa (*Eriodictyon crassifolius*), and deerweed (*Acmispon glaber*). There are also a few native coast live oak trees (*Quercus agrifolia*). The herbaceous layer contains a mixture of native and non-native grasses and forbs, and bedrock slabs and shaded, rocky areas support assemblages of non-vascular plants. There are no stream channels and no riparian habitat. Island Area 9 burned in the Peak Fire in November 2018. The only special-status species that may have been reported within Island Area 9 is the southern California rufous-crowed sparrow (*Aimophila ruficeps canescens*), which is a CDFW Watch List species. This bird is reported to occur in the CNDDB within a non-specific area that includes Island Area 9 as well as the rocky naturally vegetated slopes to the north of the 118 Freeway. Although it was not observed during the site walkover, this species is expected to occur at the site. There are naturally vegetated slopes and the 118 Freeway to the north and east of Island Area 9, and residential development to the west and south.
The following special-status plant and animals have potential to occur in native habitats at Island Area 9 with varying probabilities ranging from moderate to very low:

<u>Special-Status Plants</u>

Braunton's milkvetch (*Astragalus brauntonii*) [FE, CRPR 1B.2]
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*) [FC/CE]
Santa Susana tarplant (*Deinandra minthornii*) [CR]
Chaparral nolina (*Nolina cismontana*) [CRPR 1B.2]
Gerry's curly-leaved monardella (*Monardella sinuata* ssp. *gerryi*) [CRPR 1B.2]
Malibu baccharis (*Baccharis malibuensis*) [CRPR 1B.1]
Mesa horkelia (*Horkelia cuneata* var. *puberula*) [CRPR 1B.1]
Ojai navarretia (*Navarretia ojaiensis*) [CRPR 1B.1]
Parry's spineflower (*Chorizanthe parryi* var. *parryi*) [CRPR 1B.1]
Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*) [CRPR 1B.2]
Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*) [CRPR 1B.2]
White rabbit-tobacco (*Pseudognaphalium leucocephalum*) [CRPR 2B.2]

Special-Status Wildlife

Crotch bumble bee (*Bombus crotchii*) [Candidate CE]
California gnatcatcher (*Polioptila californica*) [CT, SSC]
Western spadefoot (*Spea hammondii*) [SSC]
California glossy snake (*Arizona elegans occidentalis*) [SSC]
Coast horned lizard (*Phrynosoma blainvillii*) [SSC]
Coast patch-nosed snake (*Salvadora haxalepis virgultea*) [SSC]
Coastal whiptail (*Aspidoscelis tigris stejnegeri*) [SSC]
Black swift (*Cypseloides niger*) [SSC]
Vaux's swift (*Chaetura vauxi*) [SSC]
Loggerhead shrike (*Lanius ludovicianus*) [SSC]
Northern harrier (*Circus cyaneus*) [SSC]
White-tailed kite (*Elanus leucurus*) [CFP]
San Diego desert woodrat (*Neotoma lepida*) [SSC]
Pallid bat (*Antrozous pallidus*) [SSC]
Western mastiff bat (*Eumops perotis californicus*) [SSC]
Western red bat (*Lasiurus blossevillii*) [SSC]

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Appendix 1
Biological Database Searches

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Simi (3411837) OR Calabasas (3411826) OR Fillmore (3411848) OR Moorpark (3411838) OR Newbury Park (3411828) OR Piru (3411847) OR Santa Susana (3411836) OR Thousand Oaks (3411827) OR Val Verde (3411846))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2	SSC
Anniella spp. California legless lizard	ARACC01070	None	None	G3G4	S3S4	SSC
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Baccharis malibuensis Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus clavatus var. gracilis slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
Calochortus fimbriatus late-flowered mariposa-lily	PMLIL0D1J2	None	None	G3	S3	1B.3
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	None	Endangered	G2T1	S1	1B.1
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Cismontane Alkali Marsh Cismontane Alkali Marsh	CTT52310CA	None	None	G1	S1.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Deinandra minthornii Santa Susana tarplant	PDAST4R0J0	None	Rare	G2	S2	1B.2
Delphinium parryi ssp. blochmaniae dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
Delphinium umbraculorum umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Dudleya cymosa ssp. agourensis Agoura Hills dudleya	PDCRA040A7	Threatened	None	G5T1	S1	1B.2
Dudleya cymosa ssp. marcescens marcescent dudleya	PDCRA040A3	Threatened	Rare	G5T2	S2	1B.2
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Dudleya parva Conejo dudleya	PDCRA04016	Threatened	None	G1	S1	1B.2
Dudleya verityi Verity's dudleya	PDCRA040U0	Threatened	None	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S3	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eriogonum crocatum conejo buckwheat	PDPGN081G0	None	Rare	G1	S1	1B.2
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	AFCPA03011	Endangered	Endangered	G5T1	S1	FP
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S2	
Gymnogyps californianus California condor	ABNKA03010	Endangered	Endangered	G1	S2	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Helminthoglypta fontiphila Soledad shoulderband	IMGASC2250	None	None	G1	S1	
Helminthoglypta traskii pacoimensis Pacoima shoulderband	IMGASC2472	None	None	G1G2T1	S1	
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lepechinia rossii Ross' pitcher sage	PDLAM0V060	None	None	G1	S1	1B.2
Lupinus paynei Payne's bush lupine	PDFAB2B580	None	None	G1Q	S1	1B.1
Macrotus californicus California leaf-nosed bat	AMACB01010	None	None	G3G4	S3	SSC
Monardella hypoleuca ssp. hypoleuca white-veined monardella	PDLAM180A5	None	None	G4T3	S3	1B.3
Monardella sinuata ssp. gerryi Gerry's curly-leaved monardella	PDLAM18163	None	None	G3T1	S1	1B.1
Myotis ciliolabrum western small-footed myotis	AMACC01230	None	None	G5	S3	
Navarretia ojaiensis Ojai navarretia	PDPLM0C130	None	None	G2	S2	1B.1
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	Candidate Endangered	G5T1Q	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Pentachaeta lyonii Lyon's pentachaeta	PDAST6X060	Endangered	Endangered	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Quercus dumosa Nuttall's scrub oak	PDFAG050D0	None	None	G3	S3	1B.1
Rana boylii pop. 6 foothill yellow-legged frog - south coast DPS	AAABH01056	Proposed Endangered	Endangered	G3T1	S1	
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S3	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S3	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Socalchemmis gertschi Gertsch's socalchemmis spider	ILARAU7010	None	None	G1	S1	
Southern California Threespine Stickleback Stream Southern California Threespine Stickleback Stream	CARE2320CA	None	None	GNR	SNR	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Forest Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Willow Scrub Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S2	
Symphyotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Trimerotropis occidentiloides Santa Monica grasshopper	IIORT36300	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Walnut Forest Walnut Forest	CTT81600CA	None	None	G1	S1.1	

Record Count: 92

CNPS Rare Plant Inventory

California Native Plant Society

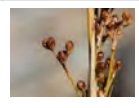
Search Results

54 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3411847:3411848:3411836:3411846:3411838:3411827:3411826:3411828]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Asplenium vespertinum	western spleenwort	Aspleniaceae	perennial rhizomatous herb	Feb-Jun	None	None	G3?	S4	4.2		1974-01-01	No Photo Available
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	FE	None	G2	S2	1B.1	Yes	1974-01-01	 © 2009 Thomas Stoughton
Baccharis malibuensis	Malibu baccharis	Asteraceae	perennial deciduous shrub	Aug	None	None	G1	S1	1B.1	Yes	2001-01-01	No Photo Available
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974-01-01	No Photo Available
Calochortus clavatus var. *clavatus*	club-haired mariposa lily	Liliaceae	perennial bulbiferous herb	(Mar)May-Jun	None	None	G4T3	S3	4.3	Yes	1974-01-01	No Photo Available
Calochortus clavatus var. *gracilis*	slender mariposa-lily	Liliaceae	perennial bulbiferous herb	Mar-Jun(Nov)	None	None	G4T2T3	S2S3	1B.2	Yes	1994-01-01	No Photo Available
Calochortus fimbriatus	late-flowered mariposa-lily	Liliaceae	perennial bulbiferous herb	Jun-Aug	None	None	G3	S3	1B.3	Yes	1994-01-01	No Photo Available
Calochortus plummerae	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G4	S4	4.2	Yes	1994-01-01	No Photo Available
Calystegia peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	None	None	G4	S4	4.2	Yes	1974-01-01	No Photo Available
Centromadia parryi ssp. *australis*	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1		1994-01-01	No Photo Available
Cercocarpus betuloides var. *blancheae*	island mountain-mahogany	Rosaceae	perennial evergreen shrub	Feb-May	None	None	G5T4	S4	4.3	Yes	1974-01-01	No Photo Available

Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	None	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Chorizanthe parryi var. *parryi*	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.1	Yes	1994-01-01	No Photo Available
Clarkia exilis	slender clarkia	Onagraceae	annual herb	Apr-May	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Deinandra minthornii	Santa Susana tarplant	Asteraceae	perennial deciduous shrub	Jul-Nov	None	CR	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov	None	None	G4	S4	4.2		2001-01-01	No Photo Available
Delphinium parryi ssp. *blochmaniae*	dune larkspur	Ranunculaceae	perennial herb	Apr-Jun	None	None	G4T2	S2	1B.2	Yes	1988-01-01	No Photo Available
Delphinium parryi ssp. *purpureum*	Mt. Pinos larkspur	Ranunculaceae	perennial herb	May-Jun	None	None	G4T4	S4	4.3	Yes	1974-01-01	No Photo Available
Delphinium umbraculorum	umbrella larkspur	Ranunculaceae	perennial herb	Apr-Jun	None	None	G3	S3	1B.3	Yes	1974-01-01	No Photo Available
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	None	None	G3T2	S2	1B.1		1974-01-01	 © 2011 Aaron E. Sims
Dudleya cymosa ssp. *agourensis*	Agoura Hills dudleya	Crassulaceae	perennial herb	May-Jun	FT	None	G5T1	S1	1B.2	Yes	1980-01-01	No Photo Available
Dudleya cymosa ssp. *marcescens*	marcescent dudleya	Crassulaceae	perennial herb	Apr-Jul	FT	CR	G5T2	S2	1B.2	Yes	1974-01-01	No Photo Available
Dudleya cymosa ssp. *ovatifolia*	Santa Monica dudleya	Crassulaceae	perennial herb	Mar-Jun	FT	None	G5T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Dudleya parva	Conejo dudleya	Crassulaceae	perennial herb	May-Jun	FT	None	G1	S1	1B.2	Yes	1974-01-01	No Photo Available
Dudleya verityi	Verity's dudleya	Crassulaceae	perennial herb	May-Jun	FT	None	G1	S1	1B.1	Yes	1984-01-01	No Photo Available

Eriogonum crocatum	conejo buckwheat	Polygonaceae	perennial herb	Apr-Jul	None	CR	G1	S1	1B.2	Yes	1974-01-01	No Photo Available
Galium cliftonsmithii	Santa Barbara bedstraw	Rubiaceae	perennial herb	May-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2020 Brian Bielfelt
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	None	None	G4	S3	4.2		1980-01-01	 © 2015 Keir Morse
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2		1994-01-01	No Photo Available
Horkelia cuneata var. *puberula*	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	None	None	G4T1	S1	1B.1	Yes	2001-01-01	 © 2008 Tony Morosco
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	Yes	1994-01-01	 © 2020 Zoya Akulova
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo
Lepechinia fragrans	fragrant pitcher sage	Lamiaceae	perennial shrub	Mar-Oct	None	None	G3	S3	4.2	Yes	1974-01-01	 © 2014 Debra L. Cook
Lepechinia rossii	Ross' pitcher sage	Lamiaceae	perennial shrub	May-Sep	None	None	G1	S1	1B.2	Yes	2006-10-26	No Photo Available
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	None	None	G5T3	S3	4.3		1994-01-01	 © 2015 Keir Morse
Lessingia tenuis	spring lessingia	Asteraceae	annual herb	May-Jul	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2020 Keir Morse

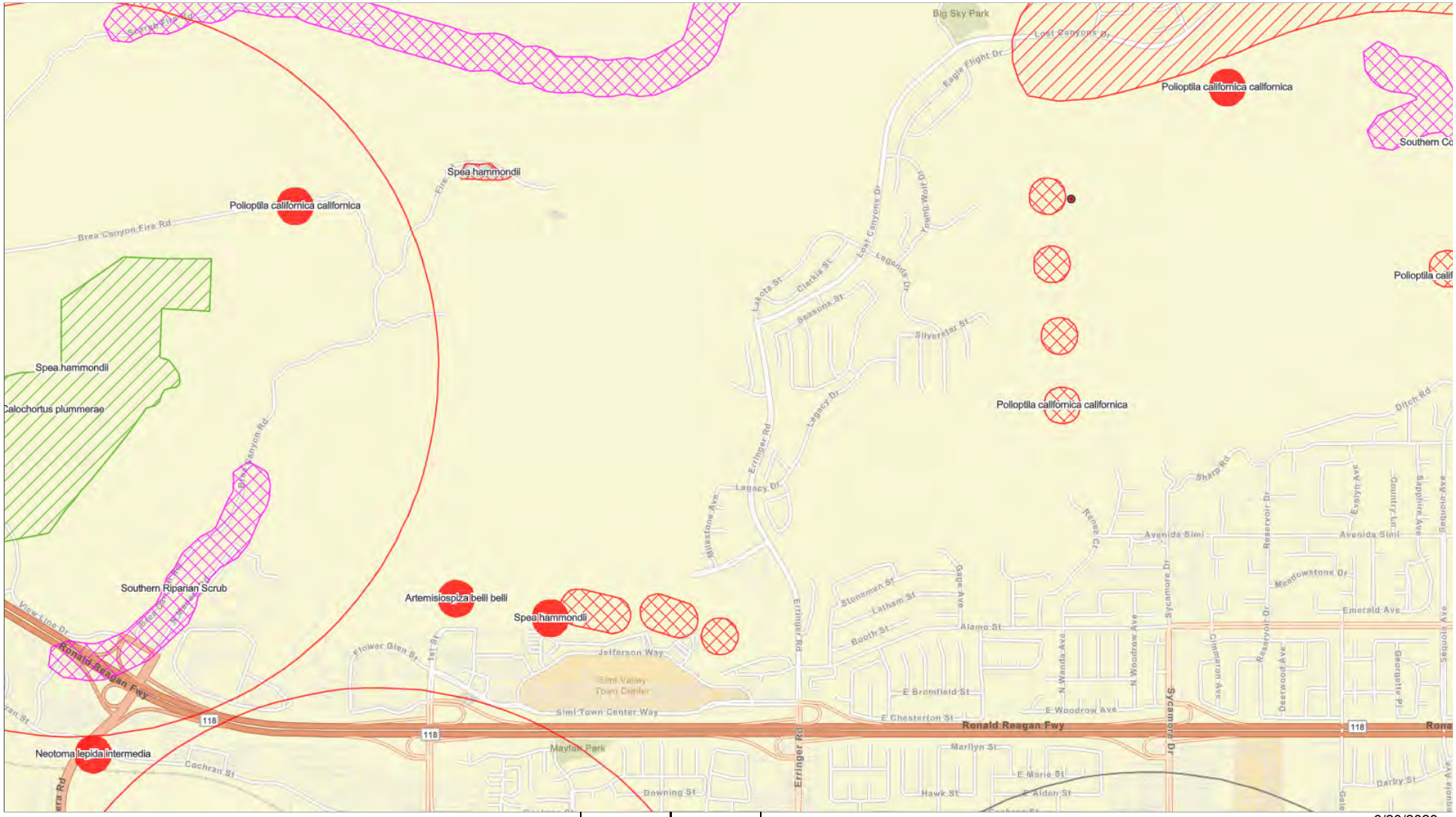
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	None	None	G4T4?	S4?	4.2	Yes	1980-01-01	 © 2008 Thomas Stoughton
Lupinus paynei	Payne's bush lupine	Fabaceae	perennial shrub	Mar-Apr(May-Jul)	None	None	G1Q	S1	1B.1	Yes	2017-04-03	No Photo Available
Monardella hypoleuca ssp. *hypoleuca*	white-veined monardella	Lamiaceae	perennial herb	(Apr)May-Aug(Sep-Dec)	None	None	G4T3	S3	1B.3	Yes	2013-01-03	No Photo Available
Monardella sinuata ssp. *gerryi*	Gerry's curly-leaved monardella	Lamiaceae	annual herb	Apr-Jun	None	None	G3T1	S1	1B.1	Yes	2015-08-31	No Photo Available
Navarretia ojaiensis	Ojai navarretia	Polemoniaceae	annual herb	May-Jul	None	None	G2	S2	1B.1	Yes	2008-05-15	No Photo Available
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	None	None	G3	S3	1B.2	Yes	2001-01-01	No Photo Available
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1		1974-01-01	No Photo Available
Pentachaeta lyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar-Aug	FE	CE	G1	S1	1B.1	Yes	1974-01-01	No Photo Available
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	None	None	G4	S4	4.2	Yes	2007-02-02	No Photo Available
Piperia michaelii	Michael's rein orchid	Orchidaceae	perennial herb	Apr-Aug	None	None	G3	S3	4.2	Yes	1984-01-01	No Photo Available
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	None	None	G4	S2	2B.2		2006-11-03	No Photo Available
Quercus dumosa	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)	None	None	G3	S3	1B.1		1994-01-01	No Photo Available
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	None	None	G3	S2	2B.2		1994-01-01	No Photo Available
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	None	None	G4	S4	4.2		1994-01-01	No Photo Available
Symphyotrichum greatae	Greata's aster	Asteraceae	perennial rhizomatous herb	Jun-Oct	None	None	G2	S2	1B.3	Yes	1974-01-01	No Photo Available

Showing 1 to 54 of 54 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 20 June 2023].

BIOS Map (North Canyon Ranch Site and Surrounds)



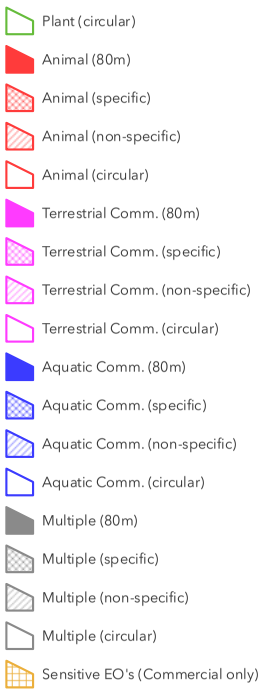
459 meters | 1504 feet

6/20/2023

Map Legend

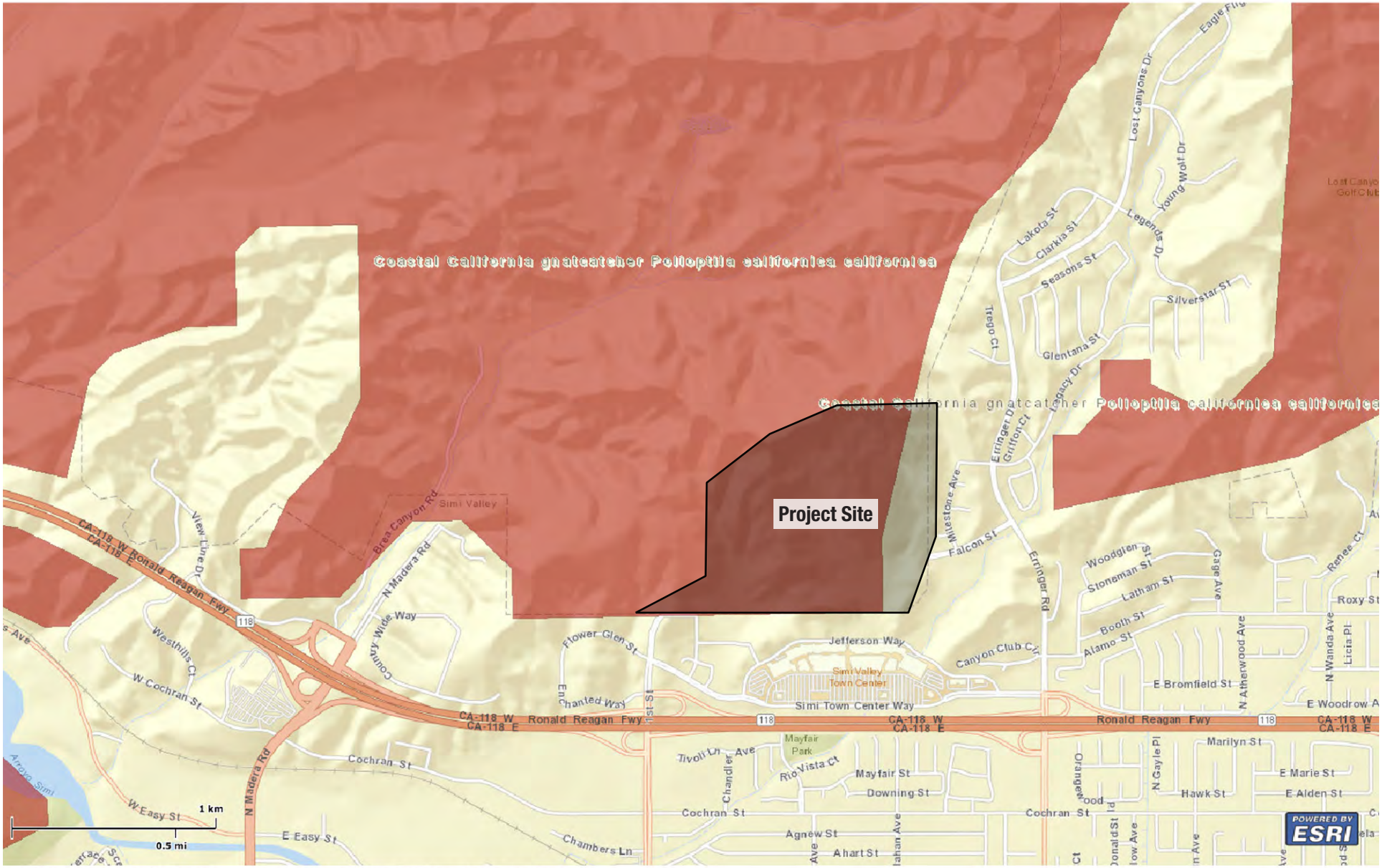
Biosds85 fps - California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)


Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (80m)
Terrestrial Comm. (specific)
Terrestrial Comm. (non-specific)
Terrestrial Comm. (circular)
Aquatic Comm. (80m)
Aquatic Comm. (specific)
Aquatic Comm. (non-specific)
Aquatic Comm. (circular)
Multiple (80m)
Multiple (specific)
Multiple (non-specific)
Multiple (circular)
Sensitive EO's (Commercial only)

USFWS Critical Habitat

North Canyon Ranch



Appendix 2
Vascular Plants Observed
by Envicom Corporation in 2015, 2017, 2019 & 2023

"*" indicates a non-native species

GROUP Family *Scientific Name*	Common Name
FERNS AND ALLIES	
Pteridaceae (Brake Family)	
Pellaea andromedifolia	coffee fern
Selaginellaceae (Spike-moss Family)	
Selaginella bigelovii	Bigelow's spike moss
FLOWERING PLANTS-DICOTS	
Adoxaceae (Muskroot Family)	
Sambucus nigra ssp. *caerulea*	blue elderberry
Amaranthaceae (Amaranth Family)	
*Amaranthus albus**	tumbleweed
Anacardiaceae (Sumac or Cashew Family)	
Malosma laurina	laurel sumac
Rhus integrifolia	lemonade berry
Rhus ovata	sugar bush
*Schinus molle**	Peruvian pepper
Toxicodendron diversilobum	poison oak
Apiaceae (Carrot Family)	
Apiastrum angustifolium	
Daucus pusillis	rattlesnake weed
*Foeniculum vulgare**	fennel
Lomatium utriculatum	hog fennel
Sanicula arguta	snake root
Sanicula crassicaulis	Pacific sanicle
Apocynaceae (Dogbane Family)	
Asclepias fascicularis	narrowleaf milkweed
Asteraceae (Sunflower family)	
Achyrachaena mollis	blow wives
Acourtia microcephala	sacapellote
Ambrosia acanthacarpa	annual bursage
Ambrosia psilostachya	western ragweed
Artemisia californica	California sagebrush
Artemisia dracunculus	tarragon sagebrush
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule fat
*Carduus pycnocephalus**	Italian thistle
*Centaurea melitensis**	tocalote
Chaenactis glabriuscula var. *glabriuscula*	yellow pincushion
Corethrogyne filaginifolia	California aster
Deinandra fasciculata	slender tarplant
Encelia californica	California brittlebush
Encelia farinosa (planted on manu. slope)	desert brittlebush
Ericameria palmeri var. *pachylepis*	Palmer's goldenbush

GROUP Family *Scientific Name*	Common Name
Erigeron canadensis	horseweed
Erigeron foliosus var. *foliosus*	fleabane aster
Eriophyllum confertiflorum	golden yarrow
Gnaphalium palustre	lowland cudweed
Gutierrezia californica	California matchweed
Hazardia squarrosa	sawtooth goldenbush
Helianthus annuus	common wild sunflower
Heterotheca grandiflora	telegraph weed
Heterotheca sessiliflora	sessile-flower goldenaster
*Hedypnois rhagadioloides**	Crete weed
*Hypochaeris glabra**	annual cat's ear
Isocoma menziesii var. *vernonioides*	coast goldenbush
*Lactuca serriola**	prickly lettuce
Lasthenia gracilis	common goldfields
Logfia filaginoides	California cottonrose
Malacothrix saxatilis	cliff aster
Plantago erecta	California plantain
*Pseudognaphalium luteoalbum**	red-tipped cudweed
Pseudognaphalium microcephalum	small-headed white everlasting
Rafinesquia californica	California chicory
Senecio californicus	California ragwort
*Senecio vulgaris**	common groundsel
*Sonchus asper**	prickly sow-thistle
*Sonchus oleraceus**	common sow-thistle
Stebbinsoseris heterocarpa	brown microseris
Stephanomeria exigua	small wire-lettuce
Stephanomeria virgata	virgate wire-lettuce
Stylocline gnaphaloides	everlasting neststraw
Trichostemma lanceolatum	vinegar weed
Uropappus lindleyi	silverpuffs
Xanthium strumarium	common cockleburr
Boraginaceae (Borage or Waterleaf Family)	
Amsinckia intermedia	common fiddleneck
Cryptantha intermedia var. *intermedia*	large-flowered popcorn flower
Cryptantha muricata var. *muricata*	pricky popcorn flower
Emmenanthe penduliflora	whispering bells
Eucrypta chrysanthemifolia	common eucrypta
Heliotropium curassavicum	alkali heliotrope
Pectocarya linearis ssp. *ferocula*	narrow-toothed pectocarya
Phacelia cicutaria	caterpillar phacelia
Phacelia distans	fern-leaf phacelia
Brassicaceae (Mustard Family)	
*Brassica nigra**	black mustard

GROUP **Family** ***Scientific Name***	**Common Name**
*Brassica tournefortii**	Asian mustard
*Capsella bursa-pastoris**	shepard's purse
Erysimum capitatum var. *capitatum*	western wallflower
*Hirschfeldia incana**	hoary mustard
Lepidium lasiocarpum ssp. *lasiocarpum*	hairy podded peppergrass
*Lepidum latifolium**	perennial peppergrass
Lepidium nitidum	shiny peppergrass
Lepidium virginicum	wild peppergrass
*Sinapis arvensis**	charlock
*Sisymbrium irio**	London rocket
*Sisymbrium orientale**	hedge mustard
Cactaceae (Cactus Family)	
Cylindropuntia prolifera	coastal cholla
Opuntia littoralis	coastal prickly-pear
Caryophyllaceae (Pink Family)	
*Silene gallica**	small-flowered catchfly
Silene laciniata	cardinal indian pink
Chenopodiaceae (Goosefoot Family)	
*Atriplex semibaccata**	Australian saltbush
Atriplex lentiformis	quail bush
Chenopodium californicum	California goosefoot
Chenopodium sp.*	goosefoot
*Salsola australis**	southern Russian thistle
Cleomaceae (Spiderflower Family)	
Peritoma arborea	bladderpod
Convolvulaceae (Morning-glory Family)	
Calystegia macrostegia ssp. *cyclostegia*	coast morning-glory
Calystegia macrostegia ssp. *intermedia*	chaparral morning-glory
*Convolvulus arvensis**	false bindweed
Convolvulus simulans [CRPR 4.2]	small-flowered morning-glory
Cuscuta californica	California dodder
Crassulaceae (Stonecrop Family)	
Dudleya lanceolata	lanceleaf live-forever
Cucurbitaceae (Gourd Family)	
Cucurbita foetidissima	stinking gourd
Marah macrocarpa	wild cucumber
Euphorbiaceae (Spurge Family)	
Croton californicus	California croton
Croton setiger	turkey mullein
Euphorbia polycarpa	prostrate spurge
Euphorbia spathulata	warty spurge
Stillingia linearifolia	linearleaf queen's root
Fabaceae (Legume Family)	

GROUP **Family** ***Scientific Name***	**Common Name**
Acacia sp.*	acacia
Acmispon glaber	deerweed
Acmispon maritimus var. *maritimus*	coastal lotus
Acmispon strigosus	strigose lotus
Acmispon wrangelianus	Wrangel's lotus
Astragalus didymocarpus	common dwarf locoweed
Astragalus trichopodus var. *phoxus*	antisell milkvetch
Lupinus albifrons var. *hallii*	Hall's bush lupine
Lupinus bicolor	dove lupine
Lupinus hirsuitissimus	hirsute lupine
Lupinus longifolius	bush lupine
Lupinus succulentus	succulent lupine
Lupinus truncatus	blunt leaved lupine
*Medicago polymorpha**	bur-clover
*Melilotus albus**	white sweetclover
*Melilotus indicus**	yellow sourclover
*Robinia pseudoacacia**	black locust
Fagaceae (Oak Family)	
Quercus agrifolia (planted on manu. slope)	coast live oak
Quercus berberidifolia	scrub oak
Geraniaceae (Geranium Family)	
*Erodium botrys**	long-beaked filaree
*Erodium cicutarium**	red-stemmed filaree
*Erodium moschatum**	white-stemmed filaree
Lamiaceae (Mint Family)	
*Marrubium vulgare**	horehound
Salvia apiana	white sage
Salvia columbariae	chia
Salvia mellifera	black sage
Salvia leucophylla	purple sage
Trichostema lanceolatum	vinegar weed
Malvaceae (Mallow Family)	
Malacothamnus fasciculatus	bush mallow
*Malva parviflora**	small flowered cheeseweed
Montiaceae (Miner's Lettuce Family)	
Calandrinia menziesii	red maids
Claytonia perfoliata	miner's lettuce
Nytaginaceae (Four O'Clock Family)	
Mirabilis laevis var. *crassofolia*	wishbone bush
Onagraceae (Evening-Primrose Family)	
Camissoniopsis bistorta	California sun cup
Camissoniopsis intermedia	intermediate sun cup
Camissoniopsis micrantha	small evening primrose

GROUP **Family** ***Scientific Name***	**Common Name**
Clarkia unguiculata	elegant clarkia
Epilobium canum ssp. *canum*	California fuchsia
Eremothera boothii ssp. *decorticans*	shredding primrose
Eulobus californicus	California mustard evening primrose
Orobanchaceae (Broomrape Family)	
Aphyllon parishii ssp. *parishii*	Parish's broomrape
Castilleja affinis	paintbrush
Castilleja exserta ssp. *exserta*	owl's clover
Papaveraceae (Poppy Family)	
Eschscholzia caespitosa	collarless California poppy
Eschscholzia californica	California poppy
Phrymaceae (Lopseed Family)	
Diplacus aurantiacus	bush monkey flower
Diplacus brevipes	yellow monkey flower
Plantaginaceae (Plantain Family)	
Antirrhinum coulterianum	Coulter's white snapdragon
Collinsia heterophylla	Chinese houses
Keckiella cordifolia	heart-leaved penstemon
Penstemon centranthifolius	scarlet bugler
Plantago erecta	California plantain
Plantago lanceolata	English plantain
Polemoniaceae (Phlox Family)	
Allophyllum glutinosum	stinky gilia
Gilia angelensis	chaparral gilia
Eriastrum filifolium	threadleaf woolly star
Linanthus californicus	prickly phlox
Polygonaceae (Buckwheat Family)	
Chorizanthe staticoides	Turkish rugging
Eriogonum elongatum	wand buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile var. *gracile*	slender buckwheat
Polygonum aviculare ssp. *depressum**	prostrate knotweed
Pterostegia drymarioides	threadstem
*Rumex crispus**	curly dock
Rananculaceae (Buttercup Family)	
Delphinium parryi ssp. *parryi*	Parry's larkspur
Rosaceae (Rose Family)	
Heteromeles arbutifolia	toyon
Rubiaceae (Madder Family)	
Galium angustifolium var. *angustifolium*	narrowleaf bedstraw
Salicaceae (Willow Family)	
Populus fremontii ssp. *fremontii*	Fremont cottonwood
Salix exigua	sandbar willow

GROUP **Family** ***Scientific Name***	**Common Name**
Salix laevigata	red willow
Salix lasiolepis	arroyo willow
Solanaceae (Nightshade family)	
Datura wrightii	jimson weed
*Nicotiana glauca**	tree tobacco
Solanum douglasii	Douglas' nightshade
Solanum xanti	chaparral nightshade
Tamaricaceae (Tamarisk Family)	
*Tamarix ramossisma**	salt cedar
Urticaceae (Nettle Family)	
*Urtica urens**	annual stinging nettle
FLOWERING PLANTS-MONOCOTS	
Agavaceae (Century Plant Family)	
Chlorogalum pomeridianum	soap plant
Hesperoyucca whipplei	chaparral yucca
Alliaceae (Onion Family)	
Allium haematochiton	red-skinned onion
Arecaceae (Palm Family)	
*Washingtonia robusta**	Mexican fan palm
Liliaceae (Lily Family)	
Calochortus catalinae [CRPR 4.2]	Catalina mariposa lily
Calochortus clavatus var. *pallidus*	pale mariposa lily
Calochortus plummerae [CRPR 4.2]	Plummer's mariposa lily
Poaceae (Grass Family)	
*Avena barbata**	slender wild oat
*Avena fatua**	common wild oat
*Bromus diandrus**	ripgut brome
*Bromus hordeaceus**	soft chess
Bromus madritensis ssp. *rubens**	red brome
*Cynodon dactylon**	Bermuda grass
Distichlis spicata	spiked salt grass
Elymus condensatus	giant wildrye
*Festuca arundinacea**	tall fescue
Festuca microstachys	small fescue
*Festuca myuros**	rattail fescue
Festuca octoflora	sixweeks grass
*Festuca perennis**	Italian wildrye
*Hordeum murinum**	foxtail barley
*Lamarckia aurea**	goldentop
Melica imperfecta	coast melic grass
Muhlenbergia microsperma	littleseed muhly
*Pennisetum setaceum**	fountain grass
Poa secunda	bluegrass

GROUP **Family** ***Scientific Name***	**Common Name**
*Polypogon monspeliensis**	annual beardgrass
*Schismus barbatus**	Mediterranean grass
Stipa cernua	nodding needlegrass
Stipa coronata	crested needlegrass
Stipa lepida	foothill needlegrass
*Stipa miliacea**	smilo grass
Stipa pulchra	purple needlegrass
Themidaceae (Brodiaea Family)	
Bloomeria crocea	golden stars
Dipterostemon capitatus ssp. *capitatus*	blue dicks
* = non-native or introduced species CRPR 4.2 = California Native Plant Society "Watch-List" Species.	

Appendix 3
Potential for Occurrence of Special-Status Plant Species

Common Name (*Scientific Name)*	Form	Blooming Period	Primary Habitat Associations	Status (Federal/State /CNPS)	Potential to Occur (Observed, Potentially Present, Presumed Absent, Absent)
Federal or State-Listed Species					
Agoura Hills dudleya (*Dudleya cymosa* ssp. *agourensis*)	perennial herb	May - June	Rocky, volcanic breccia in chaparral and cismontane woodland at elevations between 200 to 500 meters.	FT/1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites lack suitable volcanic outcrops. Species has restricted range and is known only from the Santa Monica Mountains.
Braunton's milkvetch (*Astragalus brauntonii*)	perennial herb	January – August	Recent burns or disturbed areas, usually sandstone with carbonate layers in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland at elevations between 4 and 640 meters. A soil specialist in saline, somewhat alkaline soils high in calcium, manganese, with some potassium.	FE/1B.1	***North Canyon Ranch:*** **Presumed Absent**. The seeds of this species germinate readily following fire and mechanical disturbances. The Simi Fire burned the site in 2003, but it was not found during the surveys of the site conducted in 2005, which would be expected, if present. This species is not known from the Santa Susana Mountains and nearest known occurrences are in Simi Hills to the south. ***Island Annexations:*** **Potentially Present** in native habitats at Island Area 3 and 9.
California orcutt grass (*Orcuttia californica*)	annual herb	April – August	Vernal pools at elevations between 15 an 660 meters.	FE/CE/1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable vernal pool habitats are absent.
Conejo buckwheat (*Eriogonum crocatum*)	perennial herb	April - July	Conejo volcanic outcrops in rocky chaparral, coastal scrub, and valley and foothill grassland habitats at elevations between 50 and 580 meters.	CR/1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites lack suitable habitat and also outside known range.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Conejo dudleya (*Dudleya parva*)	perennial herb	May - June	Rocky or gravelly areas on clay or volcanic substrates in coastal scrub and valley and foothill grassland habitats at elevations between 60 and 450 meters.	FT/1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites lack suitable volcanic outcrops. Sites are outside the known range of this species.
Lyon's pentachaeta (*Pentachaeta lyonii*)	annual herb	March – August	Rocky, clay substrates in coastal scrub, valley and foothill grassland, and openings in chaparral at elevations between 30 and 630 meters.	FE/CE/1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable volcanic substrates absent.
Marcescent dudleya (*Dudleya cymosa* ssp. *marcescens*)	perennial herb	April – July	On sheer rock surfaces and rocky volcanic cliffs in chaparral at elevations between 150 and 520 meters.	FT/CR/1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable volcanic rock outcrops are absent. Species is known only from the Santa Monica Mountains.
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)	annual herb	April - July	Sandy soils in coastal scrub and valley and foothill grassland at elevations between 3 and 1035 meters.	FC/CE/1B.1	***North Canyon Ranch:*** **Presumed Absent.** Site may contain suitable habitat, but the potential for occurrence is nevertheless very low. There are few known occurrences of this species, all of which are far from the site. ***Island Annexations:*** **Potentially Present** in native habitats at Island Area 3 and 9, but the potential for occurrence is very low. There are few known occurrences of this species, all of which are far from the site.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Santa Susana tarplant (*Deinandra minthornii*)	perennial deciduous shrub	July - November	Rocky sandstone habitats in chaparral and coastal scrub at elevations between 280 and 760 meters.	CR/1B.2	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitats are absent. Also, absence of this perennial shrub confirmed by field surveys. ***Island Annexations:*** **Potentially** occurring at Island Area 9, where there is suitable sandstone habitat.
Slender-horned spineflower (*Dodecahema leptoceras*)	annual herb	April – June	Flood deposited terraces and washes in chaparral, cismontane woodland, and coastal scrub (alluvial fan sage scrub) at elevations between 200 and 760 meters.	FE/CE/1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent. Based on Consortium of California Herbaria records, site is outside known range of species.
Verity's dudleya (*Dudleya verityi*)	perennial herb	May – June	Volcanic, rocky substrates in chaparral, cismontane woodland, and coastal scrub at elevations between 60 and 120 meters.	FT/1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable volcanic rock outcrops are absent. Sites are outside the known range of this species, which occurs in western Santa Monica Mountains.
Non-Listed Special-Status Species					
Abrams' oxytheca (*Acanthoscyphus parishii* var. *abramsii*)	annual herb	June - August	Sandy or shale substrates in chaparral at elevations between 1,143 to 2,057 meters.	1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Restricted to Topatopa and San Rafael Mountains. Based on Consortium of California Herbaria records, sites are outside known range of the species.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	perennial herb	April - June	Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil; coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland at elevations between 5 and 450 meters.	1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites lack suitable shallow clay soils within open, rocky habitats.
Chaparral nolina (*Nolina cismontana*)	perennial evergreen shrub	May – July	Sandstone or gabbro substrates in chaparral and coastal scrub at elevations between 140 and 1275 meters.	1B.2	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitat is present but this perennial shrub species was confirmed absent by field surveys. Not known from Santa Susana Mountains. Nearest occurrences are in Simi Hills. ***Island Annexations:*** Potentially Present in chaparral and scrub habitats at Island Areas 3 and 9.
Chaparral ragwort (*Senecio aphanactis*)	annual herb	January – April	Chaparral, cismontane woodland, and coastal scrub habitats at elevations between 15 and 800 meters, sometimes on alkaline soils.	2B.2	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitat is present but not observed during any of the surveys in 2015, 2017, 2019, or 2023. ***Island Annexations:*** **Potentially Present** in native chaparral and scrub habitats at Island Areas 3 and 9.
Dune larkspur (*Delphinium parryi* ssp. *blochmaniae*)	perennial herb	April – May	Maritime chaparral and coastal dunes at elevations between 0 and 200 meters.	1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Gerry's curly-leaved monardella (*Monardella sinuata* ssp. *gerryi*)	annual herb	April – September	Sandy soils derived from sandstone in openings in coastal sage scrub at elevations between 150 and 243 meters.	1B.2	***North Canyon Ranch:*** **Presumed Absent.** Not observed during any of the surveys in 2015, 2017, 2019, or 2023. Site may contain suitable habitat although this species is unlikely to occur, as known distribution includes one occurrence in the Las Posas and Camarillo hills in Ventura County, California. ***Island Annexations:*** **Potentially Present** but with low probability. Island Areas 3 and 9 may contain suitable habitat although this species is unlikely to occur, as known distribution includes one occurrence in the Las Posas and Camarillo hills in Ventura County, California.
Greata's aster (*Symphyotrichum greatae*)	perennial rhizom-atous herb	June – October	Mesic habitats in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland at elevations between 300 and 2,010 meters.	1B.3	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent. A species of the San Gabriel Mountains, primarily.
Late-flowered mariposa lily (*Calochortus fimbriatus*)	perennial bulbiferous herb	June – August	Chaparral, cismontane woodland, and riparian woodland (often on serpentinite).	1B.3	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Based on Consortium of California Herbaria records, the sites are outside the known range of this species.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Malibu baccharis (*Baccharis malibuensis*)	perennial deciduous shrub	August	Chaparral, cismontane woodland, coastal scrub, and riparian woodland at elevations between 150 and 305 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** Perennial shrub confirmed absent by field surveys. Also, based on Consortium of California Herbaria records, the species does not occur in the Santa Susana Mountains. ***Island Annexations:*** **Potentially Present** in chaparral and coastal scrub habitats at Island Areas 3 and 9.
Many-stemmed dudleya (*Dudleya multicaulis*)	perennial herb	April – July	Chaparral, coastal scrub, and valley and foothill grassland at elevations between 15 and 790 meters, in heavy, often clayey soils or grassy slopes.	1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** No thin clay soil habitats at the sites. Also, based on Consortium of California Herbaria records, the species does not occur in Simi Valley or Santa Susana Mountains.
Mason's neststraw (*Stylocline masonii*)	annual herb	March - May	Sandy substrate in chenopod scrub and pinyon and juniper woodlands between 100 and 1,200 meters.	1B.1	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent.
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	perennial herb	February - September	Sandy or gravelly substrates in maritime chaparral, cismontane woodland, and coastal scrub at elevations between 70 and 810 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitat is present and there are known occurrences in Simi quadrangle area. However, species is a perennial herb and was not observed during surveys conducted during the species blooming period in 2015, 2017, 2019, or 2023.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
					Island Annexations: **Potentially Present** in chaparral and coastal scrub habitats at Island Areas 3 and 9.
Mt. Gleason paintbrush (*Castilleja gleasoni*)	perennial herb (hemi-parasitic)	May to June (September)	Granitic substates in chaparral, lower montane coniferous forest, and pinyon and juniper woodland at elevations between 665 and 2,170 meters.	1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent.
Nuttall's scrub oak (*Quercus dumosa*)	perennial evergreen shrub	February – April (May to August)	Sandy and clay loam substrates in closed-cone coniferous forest, chaparral and coastal scrub at elevations between 15 and 400 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** There are very few scrub oaks at the site, which are species *Q. berberidifolia,* not *Q. dumosa*. Also, not expected at this more inland location. ***Island Annexations:*** **Presumed Absent.** Not expected even in native habitats at the sites.
Ojai navarretia (*Navarretia ojaiensis*)	annual herb	May – July	Valley and foothill grassland and openings in chaparral and coastal scrub at elevations between 275 and 620 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** Not observed during surveys conducted in 2015, 2017, 2019, or 2023. Nearest occurrences are far from the site, including Santa Monica Mountains, Newhall Ranch, and vicinity of Ojai, California. ***Island Annexations:*** **Potentially Present**, in openings and margins of chaparral and coastal scrub at Island Areas 3 and 9, but with low probability. Nearest occurrences are far

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
					from the site, including Santa Monica Mountains, Newhall Ranch, and vicinity of Ojai, California.
Parry's spineflower (*Chorizanthe parryi* var. *parryi*)	annual herb	April – June	Sandy or rocky openings in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations between 40 and 1,705 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitats are present and not observed during surveys conducted in 2015, 2017, 2019, and 2023. Also, given its known distribution its occurrence at the site is unlikely, ***Island Annexations:*** **Potentially Present** in chaparral and coastal scrub habitats at Island Areas 3 and 9, but with low probability. Also, given its known distribution its occurrence at the site is unlikely,
Ross' pitcher sage (*Lepechinia rossii*)	perennial shrub	May – September	Found in chaparral habitats at elevations between 305 and 790 meters.	1B.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Based on Consortium of California Herbaria records, the sites are outside known range of the species. Also, absence at NC Ranch site confirmed by field surveys.
Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*)	perennial bulbiferous herb	March - June	Shaded foothill canyons in chaparral, coastal scrub, and valley and foothill grassland at elevations between 320 and 1000 meters.	1B.2	***North Canyon Ranch:*** **Presumed Absent.** Not observed during surveys conducted in 2015, 2017, 2019, or 2023. *Calochortus clavatus* occurs at the NC Ranch site but all plants observed have been variety *pallidus*, not *gracilis*.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
					Island Annexations: **Potentially Present** in chaparral and coastal scrub habitats at Island Areas 3 and 9.
Southern curly-leaved monardella (*Monardella sinuata* ssp. *sinuata*)	annual herb	April – September	Sandy substrates in chaparral, cismontane woodland, coastal dunes, and openings in coastal scrub at elevations between 0 and 300 meters.	1B.2	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitats probably absent. Not observed during surveys in 2015, 2017, 2019, or 2023 and based on Consortium of California Herbaria records, site is outside known range of the species. ***Island Annexations:*** **Potentially Present** at Island Areas 3 and 9 but with low probability. Island Areas 3 and 9 may contain suitable habitat but this species is unlikely to occur, as sites are outside known range of the species.
Southern tarplant (*Centromadia parryi* ssp. *australis*)	annual herb	May - November	Margins of marshes and swamps, vernally mesic valley and foothill grassland, and sometimes on vernal pools at elevations between 0 and 425 meters.	1B.1	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitats are probably absent and not observed during field surveys in 2015, 2017, 2019, and 2023. Nearest occurrences Wood Ranch area of Simi Valley and Thousand Oaks at Rancho Conejo Road and 101 Freeway. ***Island Annexations:*** **Presumed Absent.** Suitable habitats are absent.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Umbrella larkspur (*Delphinium umbraculorum*)	perennial herb	April – June	Chaparral and cismontane woodland at elevations between 400 and 1,600 meters.	1B.3	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent. Based on Consortium of California Herbaria records, site is well outside known range of the species with nearest occurrences in Santa Ynez Mountains.
Vernal barley (*Hordeum intercedens*)	annual herb	March – June	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), and vernal pools at elevations between 5 and 1,000 meters.	3.2	***North Canyon Ranch & Island Annexations:*** **Presumed Absent**. Suitable habitats are absent. Only one record within a few miles of the sites; all others are very far from sites.
White rabbit-tobacco (*Pseudognaphalium leucocephalum*)	perennial herb	(July) August – November (Dec.)	Sandy or gravelly substrates in chaparral, cismontane woodland, coastal scrub, and riparian woodlands at elevations between 0 and 2,100 meters.	2B.2	***North Canyon Ranch:*** **Presumed Absent.** Suitable habitat is present, but this species was not detected during surveys, some of which were conducted during its Late Summer/Fall blooming period. Also, given the known distribution of herbarium records for this species it is not expected at this site. ***Island Annexations:*** **Potentially Present** in chaparral and coastal scrub habitats at Island Areas 3 and 9.

Common Name (*Scientific Name)*	**Form**	**Blooming Period**	**Primary Habitat Associations**	**Status** (Federal/State /CNPS)	**Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
White-veined monardella *(Monardella hypoleuca* ssp. *hypoleuca*)	perennial herb	April – December	Chaparral and cismontane woodland at elevations between 50 and 1,525 meters.	1B.3	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Suitable habitats are absent. Nearest occurrences are far from sites, including eastern Santa Monica Mountains and Ojai Valley and vicinity.

The following status codes are applicable to special-status plants

Federally Protected Species

FE (Federal Endangered): A species that is in danger of extinction throughout all or a significant portion of its range.

FT (Federal Threatened): A species that is likely to become endangered in the foreseeable future.

FC (Federal Candidate): A species for which USFWS has sufficient information on its biological status and threats to propose it as Endangered or Threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

State Protected Species

CE (California Endangered): A native species or subspecies 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.

CT (California Threatened): A native species or subspecies 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 determined by the commission as "Rare" on or before January 1, 1985, is a "Threatened species."

CR (California Rare): A species, subspecies, or variety of plant is Rare under the Native Plant Protection Act when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Animals are no longer listed as Rare; all animals listed as Rare before 1985 have been listed as Threatened.

California Native Plant Society (CNPS) Rare Plant Rank

CRPR 1A: Plants presumed extinct in California and either rare or extinct elsewhere.

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

CRPR 2A: Plants presumed extirpated in California, but more common elsewhere.

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

CRPR 3: A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.

CRPR 4: A watch list for plants that are of limited distribution in California.

CNPS Threat Rank

The CNPS Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment, as follow:

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat).
- 0.2-Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat).
- 0.3-Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

Appendix 4

Vertebrate Wildlife Species Observed by Envicom Corporation, Cooper Ecological Monitoring, and/or TW Biological Services in 2015, 2017, 2019 & 2023

Common Name	*Scientific Name*
AMPHIBIANS	
Pacific tree frog	*Pseudacris regilla*
western spadefoot [SSC]	*Spea hammondii*
REPTILES	
coachwhip (red racer)	*Masticophis flagellum*
coastal whiptail [SSC]	*Cnemidophorus tigris stejnegeri*
gopher snake	*Pituophis catenifer*
side-blotched lizard	*Uta stansburiana*
southern Pacific rattlesnake	*Crotalus viridis helleri*
western fence lizard	*Sceloporus occidentalis*
BIRDS	
American crow	*Corvus brachyrhynchos*
American pipit	*Anthus rubescens*
Allen's hummingbird	*Selasphorus rufus*
American goldfinch	*Spinus tristis*
Anna's hummingbird	*Calypte anna*
ash-throated flycatcher	*Myiarchus cinerascens*
barn swallow	*Hirundo rustica*
Bell's sage sparrow [CDFW WL]	*Artemisiospiza belli*
Bewick's wren	*Thryomanes bewickii*
black phoebe	*Sayornis nigricans*
blue-gray gnatcatcher	*Polioptila caerulea*
blue grosbeak	*Passerina caerulea*
Brewer's blackbird	*Euphagus cyanocephalus*
brown-headed cowbird	*Molothrus ater*
Bullock's oriole	*Icterus bullockii*
bushtit	*Psaltriparus minimus*
California gnatcatcher [FT, SSC]	*Polioptila californica*
California horned lark [CDFW WL]	*Eremophila alpestris actia*
California quail	*Callipepla californica*
California scrub jay	*Apehelocoma californica*
California thrasher	*Toxostoma redivivum*
California towhee	*Pipilo crissalis*
Cassin's kingbird	*Tyrannus vociferans*
cedar waxwing	*Bombycilla cedrorum*
cliff swallow	*Peterochelidon pyrrhonota*
common raven	*Corvus corax*
common yellowthroat	*Geothlypis trichas*
Cooper's hawk [CDFW WL]	*Accipiter cooperii*
Costa's hummingbird [SA]	*Calypte costae*
dark-eyed junco	*Junco hyemalis*
Eurasian collared dove*	*Streptopelia decaocto*
European starling*	*Sturnus vulgaris*
grasshopper sparrow [SSC]	*Ammodramus savannarum*
great egret	*Ardea alba*

Common Name	***Scientific Name***
hooded oriole	*Icterus cucullatus*
house finch	*Carpodacus mexicanus*
house sparrow*	*Passer domesticus*
house wren	*Troglodytes aedon*
greater roadrunner	*Geococcyx californianus*
killdeer	*Tyrannus vociferans*
lark sparrow	*Chonestes grammacus*
Lawrence's goldfinch [SA]	*Spinus lawrencei*
Lazuli bunting	*Passerina amoena*
least sandpiper	*Calidris minutilla*
lesser goldfinch	*Carduelis psaltria*
Lincoln sparrow	*Melospiza lincolnii*
MacGillivray's warbler	*Geothlypis tolmiei*
mourning dove	*Zenaida macroura*
northern mockingbird	*Mimus polyglottos*
northern harrier [SSC]	*Circus hudsonius*
northern rough-winged swallow	*Stelgidopteryx serripennis*
orange-crowned warbler	*Vermivora celata*
phainopepla	*Phainopepla nitens*
red-shouldered hawk	*Buteo lineatus*
red-tailed hawk	*Buteo jamaicensis*
red-winged blackbird	*Agelaius phoeniceus*
rock pigeon*	*Columba livia*
rock wren	*Salpinctes obsoletus*
rufous hummingbird [SA]	*Selasphorus rufus*
savannah sparrow	*Passerculus sandwichensis*
Say's phoebe	*Sayornis saya*
sharp-shinned hawk [CDFW WL]	*Accipiter striatus*
song sparrow	*Melospiza melodia*
southern California rufous-crowned sparrow [CDFW WL]	*Aimophila ruficeps canescens*
spotted towhee	*Pipilo maculatus*
turkey vulture	*Cathartes aura*
Vaux's swift [SSC]	*Chaetura vauxi*
vesper sparrow	*Pooecetes gramineus*
violet-green swallow	*Tachycineta thalassina*
western bluebird	*Sialia mexicana*
western kingbird	*Tyrannus verticalis*
western meadowlark	*Sturnella neglecta*
western tanager	*Piranga ludoviciana*
white-crowned sparrow	*Zonotrichia leucophrys*
white-throated swift	*Aeronautes saxatalis*
Wilson's warbler	*Cardellina pusilla*
wrentit	*Chamaea fasciata*
yellow warbler [SSC]	*Setophaga petechia*

MAMMALS	
Botta's pocket gopher	*Thomomys bottae*
California ground squirrel	*Spermophilus beecheyi*
coyote	*Canis latrans*
desert cottontail	*Sylvilagus audubonii*
domestic cow	*Bos taurus*
northern raccoon	*Procyon lotor*
* = non-native species SSC = California Species of Special Concern CDFW WL = California Department of Fish and Wildlife Watch List Species SA = Special Animal included on CDFW's Special Animals list	

Appendix 5
Potential for Occurrence of Special-Status Wildlife Species

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
FEDERAL OR STATE-LISTED SPECIES			
Invertebrates			
Crotch bumble bee (*Bombus crotchii*)	-- / Candidate CE	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum.*	***North Canyon Ranch & Island Annexations:*** **Potentially Present.** Suitable habitat and some known food genera for the species are present at the North Canyon Ranch site and at Island Areas 2, 3 and 9.
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE/--	Endemic to western Riverside, Orange, and San Diego Counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabits seasonally astatic pools filled by winter/spring rains. Hatches in warm water later in season. Also known from Tierra Rejada pool preserve in Thousand Oaks, Ventura County.	***North Canyon Ranch:*** **Potentially Present**, but with low probability. The small apparently man-made or man-induced pond at the site appears to be a relatively recent development and is not expected to contain fairy shrimp. Whether the water chemistry and temperature are suitable for this species is unknown, but based on water depth, duration of pooling, and substrate characteristics it may not be suitable habitat. However, this species occurs in large pools approximately 4 to 5 miles southwest of the site and it could have been introduced to this pool by migratory birds and its potential occurrence cannot be entirely discounted; however, the probability of this is low. ***Island Annexations:*** **Presumed Absent.** Suitable habitats are absent.
Fishes			
Santa Ana sucker (*Catostomus santaanae*)	FT/--	Endemic to Los Angeles Basin coastal streams. Habitat generalist, but prefer sand-rubble bottoms, cool, clear water, and algae.	***North Canyon Ranch:*** **Absent**. No potential to occur due to lack of suitable habitat. There are no perennial streams at the site. ***Island Annexations:*** **Presumed Absent.** No potential to occur due to lack of suitable habitat. Sinaloa Lake is not suitable habitat for this species.

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Southern steelhead (*Oncorhynchus mykiss irideus*) (southern California Distinct Population Segment (DPS))	FE/SSC	Anadromous aquatic species found in south coast flowing waters. Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions. Southern California DPS includes populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County).	***North Canyon Ranch:*** **Absent**. No potential to occur due to lack of suitable habitat. There are no perennial streams at the site. ***Island Annexations:*** **Presumed Absent.** No potential to occur including at Sinaloa Lake.
Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*)	FE/CE/CFP	Weedy pools, backwaters and among emergent vegetation at the stream edge in small southern California streams. Cool (<24C), clear water with abundant vegetation required.	***North Canyon Ranch:*** **Absent**. No potential to occur due to lack of suitable habitat. There are no perennial streams at the site. ***Island Annexations:*** **Presumed Absent.** No potential to occur including at Sinaloa Lake.
Amphibians			
Arroyo toad (*Anaxyrus californicus*)	FE/SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** No potential to occur due to lack of suitable habitat.
California red-legged frog (*Rana draytonii*)	FT/SSC	Lowlands and foothills in or near permanent source of deep water with dense shrubby or emergent vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. Nearest reported location: Simi Hills—Ahmanson Ranch (Now Upper Las Virgenes Open Space Preserve), East Las Virgenes Creek.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent**. No potential to occur due to lack of suitable habitat.

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Foothill yellow-legged frog (*Rana boylii*)	--/CT (Cand.)	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent**. No potential to occur due to lack of suitable habitat. No perennial streams at the sites.
Birds			
Bank swallow (*Riparian riparia*) (nesting)	--/CT	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 nest hole (CDFW 2021). Very uncommon spring transient and rare fall transient, and casual winter transient along the coast, formerly a fairly common summer resident, now virtually extirpated as a breeder in the region (Garrett and Dunn 1981).	***North Canyon Ranch & Island Annexations:*** **Potentially Present,** while foraging temporarily and rarely during migration at the North Canyon Ranch site and at Sinaloa Lake in Island Area 8, but no potential to nest at the sites.
California condor (*Gymnogyps californianus*)	FE/CE	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Nearest population in Topatopa Mountains is approximately 15 miles to the north of the site. However, there is no reasonable potential for this species to forage over the sites, and no potential that it would nest at the sites. No observations of this species for the Santa Susana Mountains on e-bird.org.
California gnatcatcher (*Polioptila californica*)	CT/SSC	Obligate, permanent resident of coastal scrub below 2,500 ft in southern California. Low, coastal scrub in arid washes, on mesas and slopes.	***North Canyon Ranch:*** **Observed**, during USFWS protocol-level survey by Cooper Ecological Monitoring in April and May 2015, and by TW Biological Services, LLC in Spring 2023. This species was also observed during surveys of the site by Envicom in 2015, 2017, 2019, and 2023. Also, the site is within USFWS designated Critical Habitat for this species.

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			Island Annexations: **Potentially Present.** Potentially occurring within and near chamise and coastal sage scrub habitats at Island Areas 2, 3, and 9.
Least Bell's vireo (*Vireo bellii pusillus*) (nesting)	FE/CE	Rare and local summer resident in lowland riparian woodlands, breeding in willow thickets and other dense, low riparian growth in lowlands and the lower portions of the canyons, generally along permanent or semi-permanent streams.	***North Canyon Ranch:*** **Presumed Absent.** Site lacks suitable nesting habitat. This species is not expected to occur even on a temporary basis during mitigation, due to the minimal riparian scrub and dry condition of the site. ***Island Annexations:*** **Potentially Present.** Potentially occurring temporarily in riparian habitats during migration at Sinaloa Lake in Island Area 8, but probably not nesting.
Southwestern willow flycatcher (*Empidonax trailii extimus*) (nesting)	FE/CE	Fairly common and widespread migrant from mid-May to early June, and again from August to early October. Formerly bred in wet willow thickets, but breeders are virtually gone from the L.A. region and endangered over most of the Southwest. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows (Zeiner et al. 1990b).	***North Canyon Ranch:*** **Presumed Absent.** No suitable habitat at the site. This species is not expected to occur even on a temporary basis during mitigation, due to the minimal riparian scrub and dry condition of the site. ***Island Annexations:*** **Potentially Present.** Potentially occurring temporarily during migration in riparian habitats at Sinaloa Lake in Island Area 8, but not expected to nest at the site.
Tricolored blackbird (*Agelaius tricolor*) (nesting colony)	--/CT	Highly colonial species. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	***North Canyon Ranch:*** **Presumed Absent.** No suitable open water / marsh habitats at the site. Also, not expected to forage at the site due to distance from suitable open water and marsh habitats. ***Island Annexations:*** **Potentially Present.** Potentially nesting in marsh habitats, if present, at Sinaloa Lake at Island Area 8.
Western yellow-billed cuckoo (*Coccyzus americanus* spp. *occidentalis*) (nesting)	FT/CE	Riparian forest nester along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	***North Canyon Ranch:*** **Presumed Absent.** No suitable habitat at the site. This species is not expected to occur even on a temporary basis during mitigation, due to the minimal riparian scrub and dry condition of the site. ***Island Annexations:*** **Potentially Present.** Potentially occurring temporarily during

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			migration in riparian habitats at Sinaloa Lake in Island Area 8, but would not nest at the site.
Mammals			
Mountain lion (*Puma concolor*) [Southern California / Central Coast ESU]	--/Candidate CT	Roams through expansive home range that includes variety of habitat types, such as conifer forests, riparian and oak woodlands, streams, chaparral, and grasslands. Large ungulates especially deer are preferred but feeds on variety of large and smaller prey. ESU consists of six genetically distinct subpopulations isolated due to habitat loss and fragmentation. Species requires large areas of relatively undisturbed habitats with adequate connectivity to allow for dispersal and gene flow.	***North Canyon Ranch:*** **Potentially Present.** Potentially foraging within and moving through the Project site occasionally. ***Island Annexations:*** **Presumed Absent.**
NON-LISTED SPECIAL-STATUS SPECIES			
Fishes			
Arroyo chub (*Gila orcutti*)	--/SSC	Los Angeles Basin coastal streams. Slow water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation and associated aquatic invertebrates.	***North Canyon Ranch:*** **Absent**. No potential to occur due to lack of suitable aquatic habitats. ***Island Annexations:*** **Presumed Absent.** No potential to occur including at Sinaloa Lake.
Amphibians			
Western spadefoot (*Spea hammondii*)	--/SSC	Almost completely terrestrial, entering water only to breed. Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying. Found in cismontane woodland, coastal scrub, valley and foothills grassland, vernal pool, and wetlands. Site is within the current known range of the species (Californiaherps.com).	***North Canyon Ranch:*** **Observed**. This species bred within a small pond at the site in 2017. The site also contains cover (burrowing habitat) and foraging habitat for this species. The western flood control basin also retains pooled water and may also be potential breeding habitat for this species. ***Island Annexations:*** **Potentially Present.** Potentially present in native scrub and grassland habitats at Island Areas 2, 3 and 9, and potentially breeding if suitable breeding habitat is present.

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Reptiles			
California glossy snake (*Arizona elegans occidentalis*)	--/SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	***North Canyon Ranch & Island Annexations:*** **Potentially Present.** North Canyon Ranch site, Island Areas 2, 3, and 9 contain suitable habitats and are within the range of this species.
California legless lizard (*Anniella* sp.)	--/SSC	Sandy areas within other habitats; also in litter under live oaks. Soil moisture is essential.	***North Canyon Ranch:*** **Potentially Present**, where there are sandy soils, accumulated litter, and/or sufficient soil moisture. ***Island Annexations:*** **Presumed Absent,** due to high degree of disturbance or lack of adequate soil moisture.
Coast horned lizard (*Phrynosoma blainvillii*)	--/SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	***North Canyon Ranch & Island Annexations:*** **Potentially Present**. Suitable habitat is present at the North Canyon Ranch site. Also, potentially occurring in native scrub at Island Areas 2, 3, and 9.
Coast patch-nosed snake (*Salvadora haxalepis virgultea*)	--/SSC	Brushy or shrubby vegetation in coastal southern California. Require small mammal burrows for refuge and overwintering sites. Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains from sea level to around 7,000 ft.	***North Canyon Ranch & Island Annexations:*** **Potentially Present.** Suitable habitat is present at the North Canyon Ranch site. Also, potentially occurring in native scrub at Island Areas 2, 3, and 9.
Coastal whiptail (*Aspidoscelis tigris stejnegeri*)	--/SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	***North Canyon Ranch*** **Observed.** This species occurs at the site. ***Island Annexations:*** Potentially occurring within and near native scrub habitat at Island Areas 2, 3 and 9.
Southern California legless lizard *(Anniella*	--/SSC	Sandy areas within other habitats; also in litter under	***North Canyon Ranch:*** **Potentially Present**, where there are sandy soils,

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stebbinsi)		live oaks. Soil moisture is essential.	accumulated litter, and/or sufficient soil moisture. ***Island Annexations:*** **Presumed Absent,** due to high degree of disturbance or lack of adequate soil moisture.
Two-striped garter snake (*Thamnophis hammondii*)	--/SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	***North Canyon Ranch:*** **Presumed Absent.** Site lacks permanent or nearly permanent waterbodies required by this species. Site is too far from permanent waterbodies for any reasonable potential for occurrence. ***Island Annexations:*** **Potentially Present** in aquatic and riparian habitats at Sinaloa Lake in Island Area 8.
Western pond turtle (*Actinemys marmorata*)	--/SSC	Inhabits permanently or nearly permanent bodies of water in many habitat types, below 6,000 feet in elevation. Requires basking sites, such as partially submerged logs, vegetation mats, or open mud banks. Needs suitable nesting sites with a proper thermal and hydric environment for incubation of the eggs. Nests sites are typically located on relatively dry, exposed slopes within 200 meters of the aquatic site, and usually much closer.	***North Canyon Ranch:*** **Presumed Absent.** Site lacks permanent or nearly permanent water bodies required by this species. Although this species may also be found seasonally in upland habitats, site is too far from permanent waterbodies for any reasonable potential for occurrence. ***Island Annexations:*** **Potentially Present** in aquatic and riparian habitats at Sinaloa Lake in Island Area 8.
Birds			
American peregrine falcon (*Falco peregrinus anatum*) (nesting)	--/CFP	Uncommon but widespread year-round resident in the Los Angeles region, with some influx of birds during migration (Garrett, K. et al, 2006). Nests near wetlands, lakes, rivers, or other water, on cliffs, banks, dunes, mounds, also man-made structures. Nest consists of a scrape on a depression or ledge in an open site.	***North Canyon Ranch:*** **Potentially Present** while foraging, but no potential to nest at the site. ***Island Annexations:*** **Presumed Absent.** Unlikely to forage at any of the Island Annexation sites including those with native habitats.

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Black swift (*Cypseloides niger*) (nesting)	--/SSC	Nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats (Zeiner et al. 1990b). Rare and irregular transient through coastal district, nesting at a few steep waterfall locations in the San Gabriel, San Bernardino, and San Jacinto mountains (Garrett and Dunn 1981).	***North Canyon Ranch & Island Annexations:*** **Potentially Present** while foraging temporarily and rarely during migration over North Canyon Ranch site and native habitats at Island Areas 2, 3, and 9, but no potential to nest at the sites.
Burrowing owl (*Athene cunicularia*) (burrow sites and some wintering sites)	--/SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Now extirpated from most of the coastal slope, although small numbers reach the coastal and valley regions in fall and winter (in the Los Angeles Region) (Garrett, et. al., 2006).	***North Canyon Ranch:*** **Potentially Present.** There are suitable open habitats at the site, although no ground squirrel colonies were observed and burrow options for refuge or breeding may be limited. If present, likely only occurring temporarily during migration rather than while breeding or wintering. ***Island Annexations:*** **Potentially Present.** Potentially occurring at open fields with low growing vegetation at Island Area 6, but probably only occurring temporarily during migration with low probability, and not breeding or wintering. Not expected at any of the other Island Annexation sites due to lack of suitable habitat.
Golden eagle (*Aquila chrysaetos*) (nesting and wintering)	--/CFP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas. A rare and declining resident in rugged mountain areas in the interior of the Los Angeles region. A few may still nest in the Santa Ana Mountains, Chino Hills, and Santa Monica Mountains (Garrett et al., 2006).	***North Canyon Ranch:*** **Potentially Present.** Potentially foraging occasionally over the site but no potential to nest at the site. ***Island Annexations:*** **Presumed Absent.** Not expected to forage at any of the Island Annexation sites including those with native habitats due to proximity to urban development.

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
Grasshopper sparrow (*Ammodramus savannarum*) (nesting)	--/SSC	Uncommon and very local summer resident on grassy slopes and mesas west of the deserts; noted only rarely in migration and in winter. For breeding, grasshopper sparrows require fairly continuous native grassland with occasional taller weedy stems or shrubs for singing perches (Garrett and Dunn 1981).	***North Canyon Ranch:*** **Observed.** Observed during surveys in Spring 2023. Potentially occurring as a resident or during migration, and may nest at the site. ***Island Annexations:*** **Presumed Absent.** Not expected at any of the Island Annexation sites due to lack of suitable habitat.
Loggerhead shrike (*Lanius ludovicianus*) (nesting)	--/SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting. Only a few pairs still found in coastal lowlands in the Los Angeles region, although a small number of migrants augment this population from July to March (Garrett et. al. 2006).	***North Canyon Ranch:*** **Potentially Present.** Potentially foraging and may nest at the site, if present. ***Island Annexations:*** **Potentially Present.** Potentially foraging and possibly nesting, if present, in open native habitats and disturbed rural properties at Island Areas 2, 3, 6 and 9.
Long-eared owl (*Asio otus*) (nesting)	--/SSC	Nest in conifer, oak, riparian, pinyon-juniper, and desert woodlands that are either open or adjacent to grasslands, meadows, or shrublands. Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas.	***North Canyon Ranch:*** **Presumed Absent.** Site lacks suitable habitat. Although the site contains suitable foraging habitat, it lacks dense tree cover necessary for roosting, or nesting. ***Island Annexations:*** **Presumed Absent.** Not expected at any of the Island Annexation sites due to lack of suitable habitat.
Mountain plover (*Charadrius montanus*) (wintering)	--/SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground and flat topography. Prefers grazed areas and areas with burrowing rodents. In the Los Angeles region, flocks winter (October to early March) in	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites do not contain species preferred habitats so not expected even temporarily during migration.

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		bare and heavily grazed agricultural fields in the Antelope Valley, but now very rare in open grasslands near the coast (Garrett et. al, 2006).	
Northern harrier (*Circus cyaneus*) (nesting)	--/SSC	Uncommon migrant and winter visitor (mid-September to early April) to extensive open freshwater and saltwater marshes, grasslands and agricultural fields. Breeding populations have been virtually extirpated from the coastal lowlands in the Los Angeles area (Garrett et al. 2006).	***North Canyon Ranch:*** **Observed** by Psomas in 2005/2006 and by Envicom in 2017. Species may forage at the site, but not expected to nest at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging at native and undeveloped habitats in Island Areas 2, 3, 6 and 9, but no potential to nest at the sites.
Olive-sided flycatcher (*Contopus cooperi*) (nesting)	--/SSC	In the Los Angeles region, summer resident (May to early September) mainly in conifer, mixed, and canyon woodlands of San Gabriel Mountains, and very locally closer to coast where tall pines and eucalyptus augment native trees. Migrants scarce but widespread in lowlands from mid-April through May, and in September (Garrett et al., 2006)	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites do not contain species preferred habitats so not expected even temporarily during migration.
Purple martin (*Progne subis*) (nesting)	--/SSC	Rather rare and very local summer resident in woodlands of the foothill portions of coastal district; also a rare spring transient. For nesting, they utilize old, tall sycamores, pines, etc., often within oak woodland or open conifer forest (Garrett and Dunn 1981).	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Site does not contain species preferred habitats so not expected even temporarily during migration.
Short-eared owl (*Asio flammeus*) (nesting)	--/SSC	Uncommon and local winter visitant along the coast, where it formerly nested. Wintering locations include Point Mugu, Sepulveda basin (Garrett and Dunn 1981). Usually found in open areas	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Although the North Canyon Ranch site contains suitable foraging habitat, this species is a very local winter visitant of coastal areas in southern California, and unlikely to occur at this location or at any

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		with few trees, such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands (Zeiner et al. 1990b).	of the Island Annexation sites. Sites are outside current and historical breeding range.
Summer tanager (*Piranga rubra*) (nesting)	--/SSC	Rare, but regular in fall, winter, and late spring along the coast, mostly from Los Angeles Co. southward (Garrett and Dunn 1981). Frequents cottonwood-willow associations of riparian habitats for breeding, feeding, cover, and other activities (Zeiner et al. 1990b).	***North Canyon Ranch:*** **Presumed Absent.** Site does not contain species preferred habitats so not expected even temporarily during migration. ***Island Annexations:*** **Potentially Present.** Potentially occurring temporarily with low probability during migration in riparian habitats at Sinaloa Lake, but would not nest.
Vaux's swift (*Chaetura vauxi*) (nesting)	--/SSC	Common migrant in the Los Angeles region from mid-April to mid-May, and again from late August to early October. Small flocks sometimes winter in coastal lowlands, but absent from early June to early August (Garrett et al., 2006).	***North Canyon Ranch:*** **Observed** while foraging over the site temporarily as a migrant, but no potential to nest at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging over native and undeveloped habitats at Island Areas 2, 3, 6 and 9, but no potential to nest at the sites.
White-tailed kite (*Elanus leucurus*) (nesting)	--/CFP	Uncommon resident in open grasslands, valley oak savannas, marshes, and agricultural areas throughout the lowlands of the Los Angeles region (Garrett et al. 2006). A nomadic species that may range widely in search of prey.	***North Canyon Ranch:*** **Potentially Present** while foraging at the site, but no potential to nest at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging over native and undeveloped habitats at Island Areas 2, 3, 6 and 9, but no potential to nest at the sites.
Yellow warbler (*Setophaga petechia brewsteri*) (nesting)	--/SSC	In the Los Angeles region, common spring (late April through May) and fall (August to mid-October) migrants throughout the lowlands; a very few remain to winter in willow thickets, exotic growth. Fairly common breeder (late March to August) in tall foothill woodlands of cottonwood, willow or alders near	***North Canyon Ranch:*** **Observed**, while foraging temporarily during migration. The site does not contain this species preferred riparian habitats. Therefore, individuals observed were probably migrants, not summer residents. Not expected to nest at the site. ***Island Annexations:*** **Potentially Present.** Potentially occurring in riparian habitats during migration at Sinaloa Lake in Island Area 8, and also potentially nesting.

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		watercourses; some breed in lowland willow (Garrett et al., 2006)	
Yellow-breasted chat (*Icteria virens*) (nesting)	--/SSC	Uncommon and local breeder (mid-April to August) in extensive riparian thickets in the lowlands; formerly more widespread. Scarce as a migrant, noted mainly in late April-May and August-September.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Sites do not contain preferred dense riparian habitats.
Mammals			
American badger (*Taxidea taxus*)	--/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	***North Canyon Ranch:*** **Potentially Present.** Suitable habitat is present and site is within range of this species. ***Island Annexations:*** **Presumed Absent.** Not expected at any of the sites including in native habitats due to lack of open habitats and proximity to urban development.
Big free-tailed bat (*Nyctinimops macrotis*)	--/SSC	Low-lying arid areas in southern California. Need high cliffs or rocky outcrops for roosting sites. Range (scattered records) extends from San Francisco Bay to Morro Bay, Santa Barbara, and coastal southern California from Los Angeles (Azusa, Burbank, Pomona) and San Bernardino counties southward (Constantine 1998).	***North Canyon Ranch:*** **Potentially Present** while foraging over the site but not expected to reproduce, hibernate, or roost at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging over native habitats and undeveloped areas on large rural properties at Island Areas 2, 3, 6, and 9, and potentially roosting temporarily in trees, but no potential to hibernate or reproduce at the sites.
California leaf-nosed bat (*Macrotus californicus*)	--/SSC	Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** In California, this species occurs in deserts in the Lower Sonoran life zone and the sites are therefore outside the range of this species. There are two historical records for southwestern Los Angeles County, but this species no longer occurs at those locations.
Pallid bat (*Antrozous pallidus*)	--/SSC	Occurs in a wide variety of habitats including deserts, grasslands, shrublands, woodlands and forests from sea level to mixed conifer	***North Canyon Ranch:*** **Potentially Present,** while foraging over the site, but not expected to reproduce, roost, or hibernate at the site. ***Island Annexations:*** **Potentially Present.**

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		forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Potentially foraging over native habitats and undeveloped areas on large rural properties at Island Areas 2, 3, 6, and 9, and potentially roosting temporarily in trees, but no potential to hibernate or reproduce at the sites.
Ringtail (*Bassariscus astutus octavus*)	--/CFP	Suitable habitat for ringtails consists of a mixture of forest and shrubland in close association with rocky areas or riparian habitats (Zeiner et al. 1990a).	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Not expected at any of the sites due to lack of suitable habitat or preferred native habitats.
San Diego black-tailed jackrabbit (*Lepus californicus bennetii*)	--/SSC	Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges. Coastal sage scrub habitats in southern California.	***North Canyon Ranch:*** **Potentially Present.** Site contains suitable habitat and is within the range of the species, although it has not been observed during surveys of the site, so probability of occurrence is low. ***Island Annexations:*** **Presumed Absent.** Not expected due to lack of suitable habitat.
San Diego desert woodrat (*Neotoma lepida*)	--/SSC	Coastal southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops and rocky cliffs and slopes. Occurs in a variety of habitats from sea level to 8500 feet (Zeiner et al. 1990a).	***North Canyon Ranch & Island Annexations:*** **Potentially Present.** Potentially present at the North Canyon Ranch site and at Island Sites 3 and 9, which contain suitable habitat and are within range of the species.
Spotted bat (*Euderma maculatum*)	--/SSC	Mostly in foothills and mountains and desert regions of southern California, in a range of habitats from desert and grasslands through mixed conifer forest. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** Not expected to forage, roost, hibernate, or reproduce at the sites.
Townsend's big-eared bat (*Corynorhinus townsendii*)	Candidate CT/SSC	Found in a wide variety of habitats except subalpine and alpine. Distribution is strongly correlated with the	***North Canyon Ranch & Island Annexations:*** **Presumed Absent.** The distribution of this species is strongly correlated with the availability of caves

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)
		availability of caves and cave-like roosting habitat, including abandoned mines. It has also been reported to utilize buildings, bridges, rock crevices and hollow trees as roost sites. Foraging associations include: edge habitats along streams, adjacent to and within a variety of wooded habitats.	and cave-like roosting habitat. The sites do not contain caves or cave-like roosting habitat and it appears unlikely these habitats occur in the surrounding area.
Western mastiff bat (*Eumops perotis californicus*)	--/SSC	Occurs in many open habitats including woodlands, coastal scrub, grasslands, chaparral, desert, and urban. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	***North Canyon Ranch:*** **Potentially Present** while foraging over the site, but probably not reproducing, hibernating, or roosting at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging over native habitats and undeveloped areas on large rural properties at Island Areas 2, 3, 6, and 9, and potentially roosting temporarily in trees, but no potential to hibernate, or reproduce at the sites.
Western red bat (*Lasiurus blossevillii*)	--/SSC	Roosts in forests and woodlands, and feeds over a wide variety of habitats including grasslands, shrublands, open woodlands and forests, and croplands. Foliage-dwelling, migratory bat occurs in California's Central Valley, foothills, and in similar areas of tree growth in southern California (Constantine 1998).	***North Canyon Ranch:*** **Potentially Present** while foraging over the site, but probably not reproducing, roosting, or hibernating at the site. ***Island Annexations:*** **Potentially Present.** Potentially foraging and roosting in trees in undeveloped habitats at Island Areas 3, 6, 8 and 9. Also, potentially reproducing in trees at these sites, if present.

Common Name (*Scientific Name*)	**Status** (Federal/State)	**Primary Habitat Associations**	**Status on Site/Potential to Occur** (Observed, Potentially Present, Presumed Absent, Absent)

The following status codes are applicable to special-status animals:

Federally Protected Species

FE (Federal Endangered): A species that is in danger of extinction throughout all or a significant portion of its range.

FT (Federal Threatened): A species that is likely to become endangered in the foreseeable future.

FC (Federal Candidate): A species for which USFWS has sufficient information on its biological status and threats to propose it as Endangered or Threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

FSC (Federal Species of Concern): A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "Category-2 Candidate" species.

State Protected Species

CE (California Endangered): A native species or subspecies 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.

CT (California Threatened): A native species or subspecies 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 determined by the commission as "Rare" on or before January 1, 1985, is a "Threatened species."

SSC (California Species of Special Concern): Animals that are not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.

CFP (California Fully Protected): This designation originated from the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians, reptiles, and birds. Most fully protected species have also been listed as Threatened or Endangered species under the more recent endangered species laws and regulations. California Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Cooper CAGN Report Jun 9, 2015

APPENDIX D

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June 9, 2015

Mr. Dellith,

I certify that the information in this survey report fully and accurately represents my work.

Daniel S. Cooper
President, CEM, Inc.
USFWS Permit #TE 100008-1

Protocol survey for California gnatcatcher *Polioptila californica* at "North Canyon Ranch"

Ventura Co., California

Performed by:

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Permit # TE100008-1

For:

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June 5, 2015

Summary
In this report I present findings from a protocol-level survey for the California Gnatcatcher *Polioptila californica* at "North Canyon Ranch", an area of undeveloped hills north of Simi Valley in unincorporated Ventura County, conducted between 19 April and 27 May 2015. The survey determined that the California Gnatcatcher is present at the site, with an adult male detected on each visit, and a second bird, either an adult female or a young-of-the-year, seen on the last of six visits. While I observed the male engaged in likely territorial behavior (on the final visit only), I observed no nest-building or other breeding behavior by the end of the survey.

Site Description

Location and Land Use

The area is entirely within the USGS "Simi" 7.5' topographic quadrangle and is centered on the following coordinates: 34.2844533° N, -118.777764° W (Figure 1a and 1b). It located north of the planned extension of Falcon Street between First Street and Erringer Road, to the north of the existing Archstone Apartments and Simi Valley Town Center (from: City of Simi Valley, Planning Division, Dept. of Environmental Services Initial Study; Figure 2a). The project encompasses roughly 160 acres. The initial proposal is to "subdivide the eastern portion of the property into approximately 212 single-family lots and up to 39 multi-family units, and subdivide the western portion of the property for development of a church, with an associated private elementary school to accommodate 150 students, a 115-unit senior assisted living facility and housing for six staff members. Finally, the project proposes to annex the entire property into the City of Simi Valley." Roughly half the acreage of the site (80 acres) is proposed as open space following development (Figure 2b). An updated tract map is being prepared that will replace the proposed church and elementary school with additional homes, and may change the proposed layout shown in Figure 2b.

Currently, most of the site is actively grazed by cattle, and only the southern boundary of the site, along the urbanized edge of Simi Valley, is ungrazed (where separated by a bared-wire fence from the grazed portion). Two debris basins, and areas of previously-graded building pads and artificial slopes are in the southern half of the site.

Figure 1a. Location of project (blue arrow).

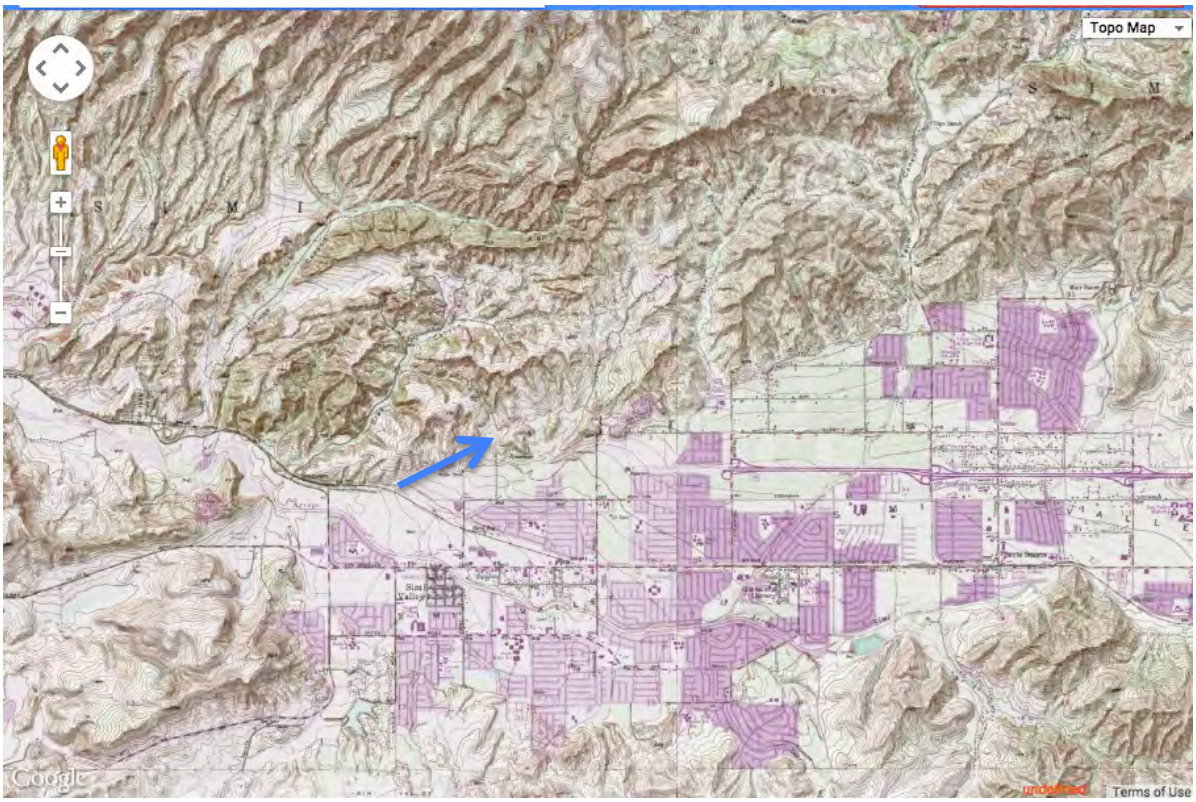


Figure 1b. Detail of location (blue box). Note: 118 Freeway is not visible on this map.

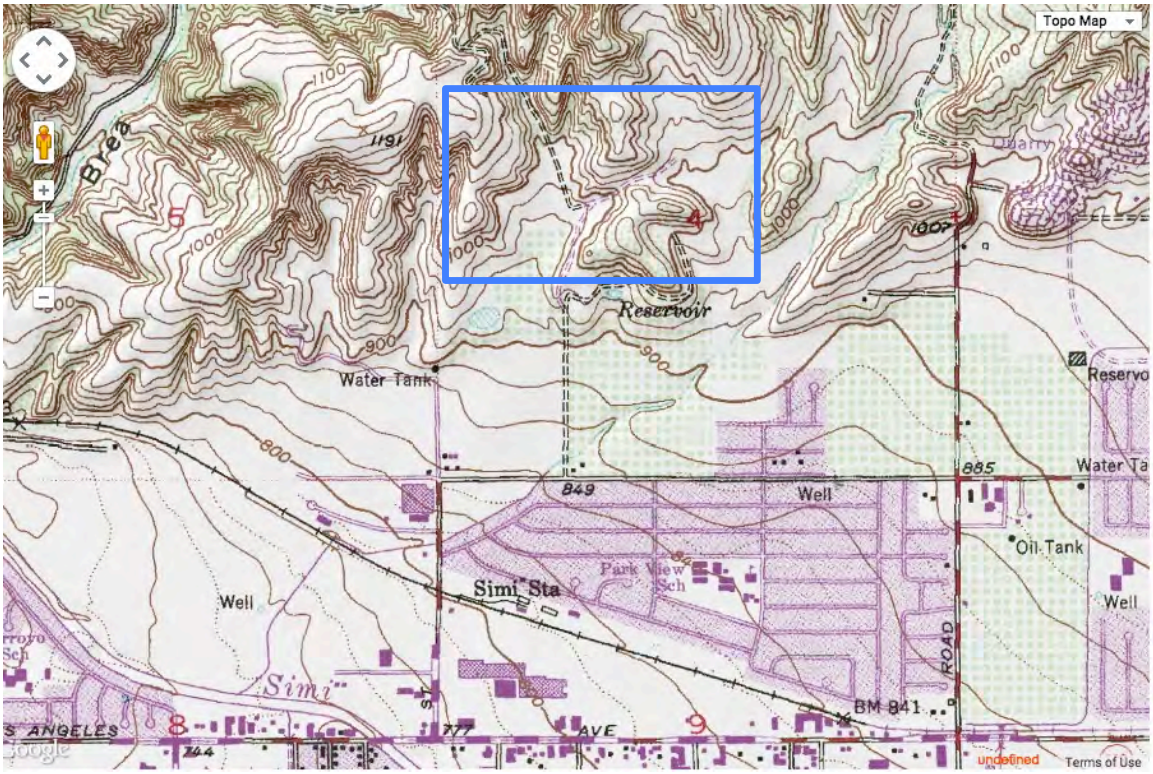


Figure 2a. Zoning map showing project site.

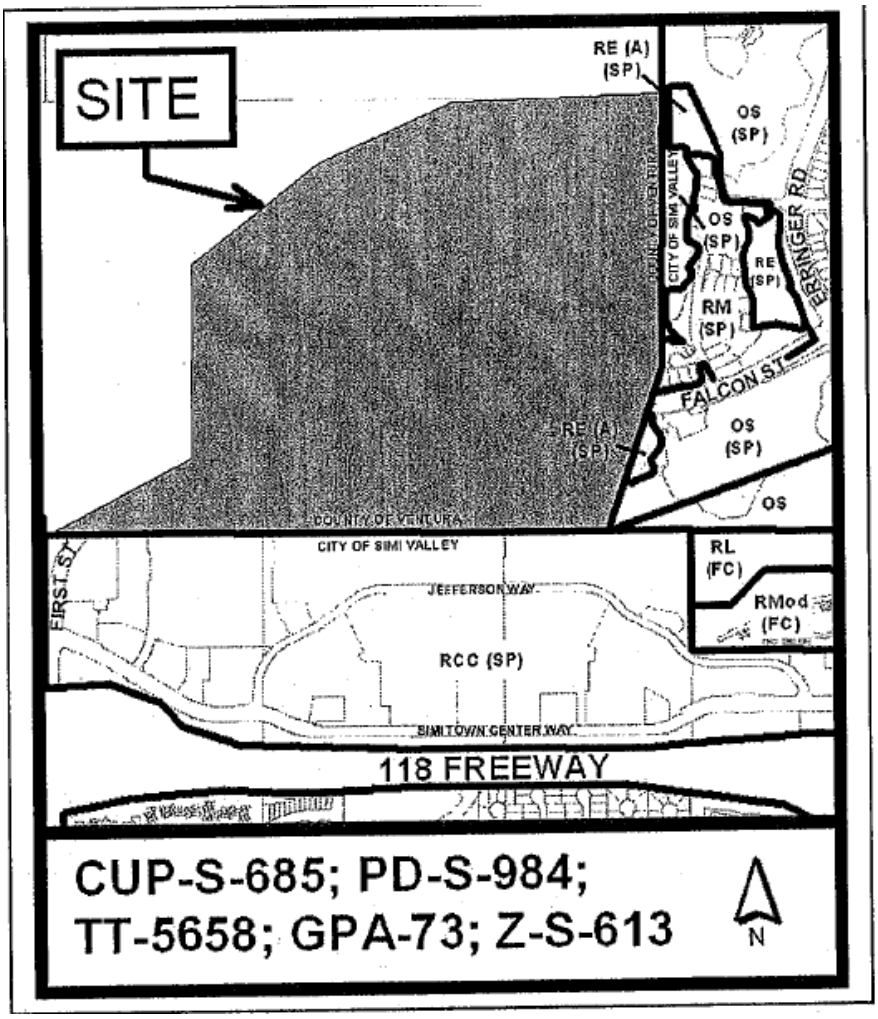
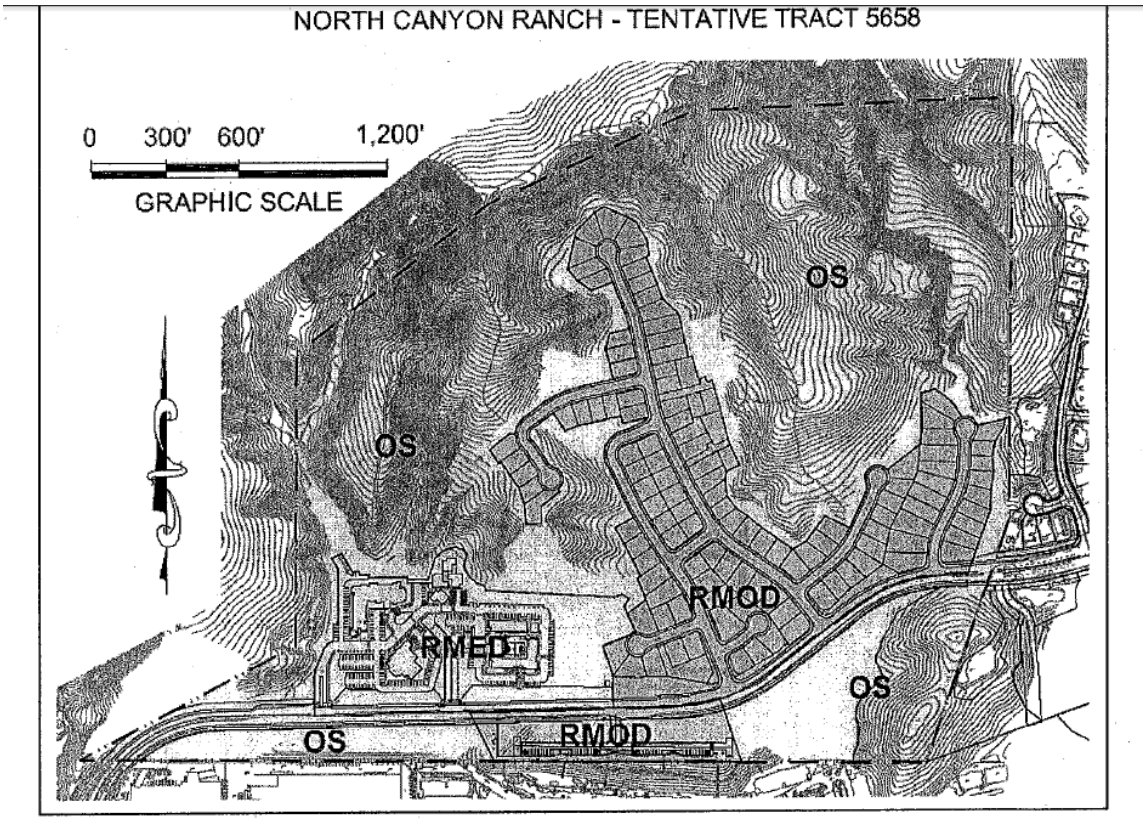


Figure 2b. Detail of project site showing locations of proposed impacts. Current northern end of First St. is at lower left corner of map; Erringer Rd. is partially shown along right edge. "OS" indicates proposed open space.



Vegetation

The entire site is approximately 160 acres, and is entirely vegetated and undeveloped (Figure 3a). Approximately 25 acres of the site would be described as highly disturbed, with soils that have been graded into building pads, and where vegetation is dominated by non-native grasses and mustards, among other weeds (including Russian thistle *Salsola tragus*), with only small, scattered native shrubs such as goldenbushes (*Ericameria palmeri* and *Isocoma menziesii*) and mulefat (*Baccharis salicifolius*). This largely herbaceous community extends across 41 acres, areas that might have been cleared in the past, but have not been graded and are now impacted primarily from grazing. Approximately 30 acres of the site, mainly on the highest slopes, is chaparral, featuring tall evergreen shrubs such as chaparral mallow (*Malacothamnus fasciculatus*) chamise (*Adenostoma fasciculata*), toyon (*Heteromeles arbutifolia*) and sumacs (*Rhus* spp.). This community is also grazed, particularly away from the steeper slopes, and appears to have burned recently. Thus, it is fairly open, and intergrades broadly with an open (grazed/burned) coastal sage scrub (also c. 30 acres), which is dominated by California sunflower (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*) and sages (*Salvia* spp.).

Coastal scrub vegetation is particularly intact and lush along the southern boundary (where ungrazed, and presumably not burned in the last major fire). This area, which is separated from the rest of the site by a bared-wire fence, extends over 10.7 acres (as measured using

Google Earth Pro) and is dotted with a wide variety of shrubs such as blue elderberry (*Sambucus nigra* ssp. *caerulea*) and holly-leaf redberry (*Rhamnus illicifolia*); small patches of cactus (*Opuntia littoralis*, *O. prolifera*) are scattered throughout the entire site (Figure 3b).

Figure 3a. Generalized vegetation of North Canyon Ranch, Ventura Co. Magenta = chaparral (grazed); blue = coastal sage scrub (grazed); yellow = annual grassland/herbaceous (grazed); brown = highly disturbed (grazed); green = coastal sage scrub (ungrazed).

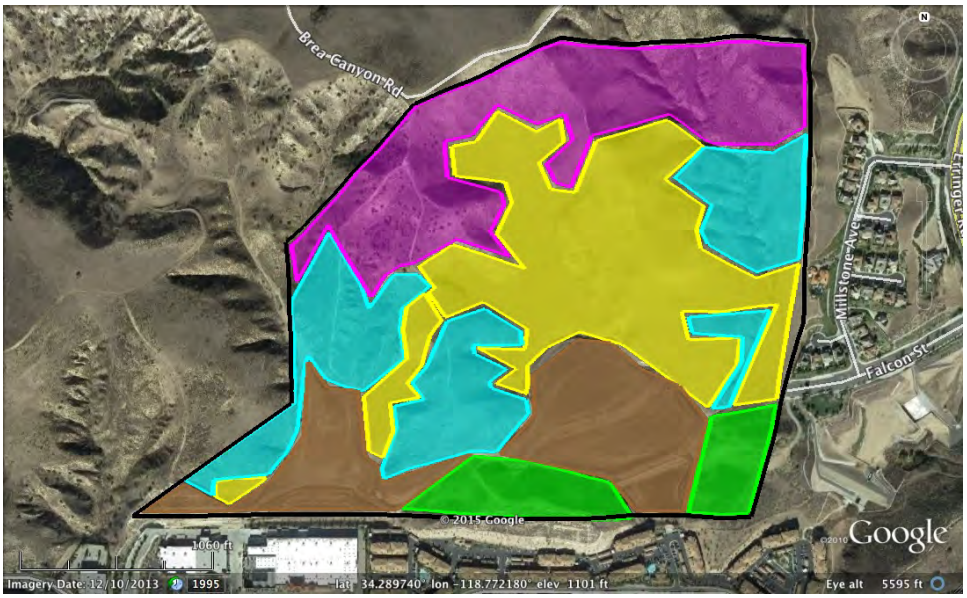


Figure 3b. View (south) toward one of two intact coastal sage scrub patches on North Canyon Ranch property, with grazed coastal sage scrub in foreground.

Based on the Initial Study and from images on Google Earth, the site was thought to be roughly half covered with coastal sage scrub suitable for the California Gnatcatcher (i.e., c. 80 acres). However, after the initial site visit, it appeared that most of this vegetation at the site is heavily grazed, and is best described as a mix of annual grassland and sparse coastal sage scrub. I found no more than 11 acres of intact, ungrazed/unburned scrub suitable for California Gnatcatcher currently present on the entire property, located on two separate slopes along the southern boundary of the site, and separated by a debris basin (see areas shown in green in Figure 3a).

Effort

As required by survey protocol[1], I made six morning visits to the study area spaced one week apart, as follows (all 2015):

1. April 19 (7:10-10:47 AM; 47-66° F; clear/calm)
2. April 28 (7:42-10: 20 AM; 63-88° F; clear, wind to 5 mph)
3. May 5 (8:00-10:33 AM; 59° F; overcast/calm)
4. May 12 (7:32-9:16 AM; 57-61° F; partly cloudy/calm but gusts to 10 mph atop ridges)
5. May 19 (9:59-11:02; 61° F; clear/calm)
6. May 27 (10:35-12:13; 54-66° F; partly cloudy, calm)

During the initial visit, I walked as much of the site as was safely accessible (certain slopes in the north-central area of the property are too steep to walk), but during later visits, I focused on areas with the densest patches of coastal sage scrub where the chances of finding and observing California Gnatcatchers would be highest. While most of my effort was in the limited areas of intact coastal sage scrub (green areas in Figure 3a), I also visited at least a portion of the grazed/sparse coastal sage scrub habitat during each visit, to make sure I was not missing any birds here. I employed recordings of California Gnatcatcher vocalizations (using an iPhone) during each survey, stopping playback when a bird responded. I noted the time and duration of all encounters with California Gnatcatchers, and noted major movements, vocalizations and any other relevant behavior of individual gnatcatchers observed. I also noted numbers of all other bird species during each visit.

Findings and Discussion

Up to two California Gnatcatchers were detected during this survey. A calling adult male in breeding plumage was observed on all six (of six) visits (Figure 4). In addition, a "female-plumaged" bird, either an adult female, a juvenile female, or a juvenile male, was observed briefly on the final visit (27 May 2015). On the first visit while observing the adult male, I noted that I heard a possible second bird nearby; however, during subsequent visits, I heard this male consistently giving a distinctive mixture of vocalizations, switching from a typical alarm call ("ji, ji, ji, ji") to the "mewing" calls that both males and females give, alternating back and forth. Thus, I could confirm the presence of two birds only on the final visit, with one bird present during the entire survey period.

[1] United States Fish and Wildlife Service, 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines. February 28, 1997.

Figure 4. California Gnatcatcher (adult male) photographed near Location "D" (see Figure 5a) on 19 April 2015, and presumably the same bird as was detected on all subsequent visits during the survey.

Table 1 summarizes each observation by date, and locations of California Gnatcatcher activity are shown in Figure 5a. All detections were made in areas of intact coastal sage scrub (green areas on Figure 5b). Except for the final survey day when a likely territorial display was observed (described below), all detections involved a single male California Gnatcatcher seen/heard briefly, usually calling frequently but moving quickly with long flights, moving either well off the site, or disappearing deep into scrub vegetation. Once on 12 May I observed it making a very long flight high above the large debris basin at the southeastern corner of the site, from one area of coastal sage scrub to the other (Location F to E; see Figure 5a). This supported the theory that only a single male was present during each visit, moving between the two main patches of intact coastal sage scrub or venturing off the site to the east. After each observation of this male, I would walk quickly over to other areas of coastal sage scrub and try to find additional birds, but never did.

While this individual occasionally responded to recordings of vocalizations, it would typically begin calling spontaneously, sometimes from up to 100 meters away. However, on the final survey day, I observed what was presumably this same male performing an apparent territorial display, repeatedly flying back and forth between two shrubs separated by less than 20 meters (Locations "C" and "D" in Figure 5a), remaining perched for several minutes at a time, preening, and at least once, flying with somewhat slower, more exaggerated wingbeats while calling. This indicated that it was trying to define or defend a territory nearby.

A second bird seen (on 5/27/15), which could not be photographed, lacked a black cap and showed a distinct eye ring, indicating it was not an adult male. I only saw it briefly, first in flight moving west past Location "D", then when it perched for a few seconds just downslope of where I was standing at the top of the ridge to the south. It then continued a long flight west and disappeared, and did not respond to recordings, and was not found again that morning.

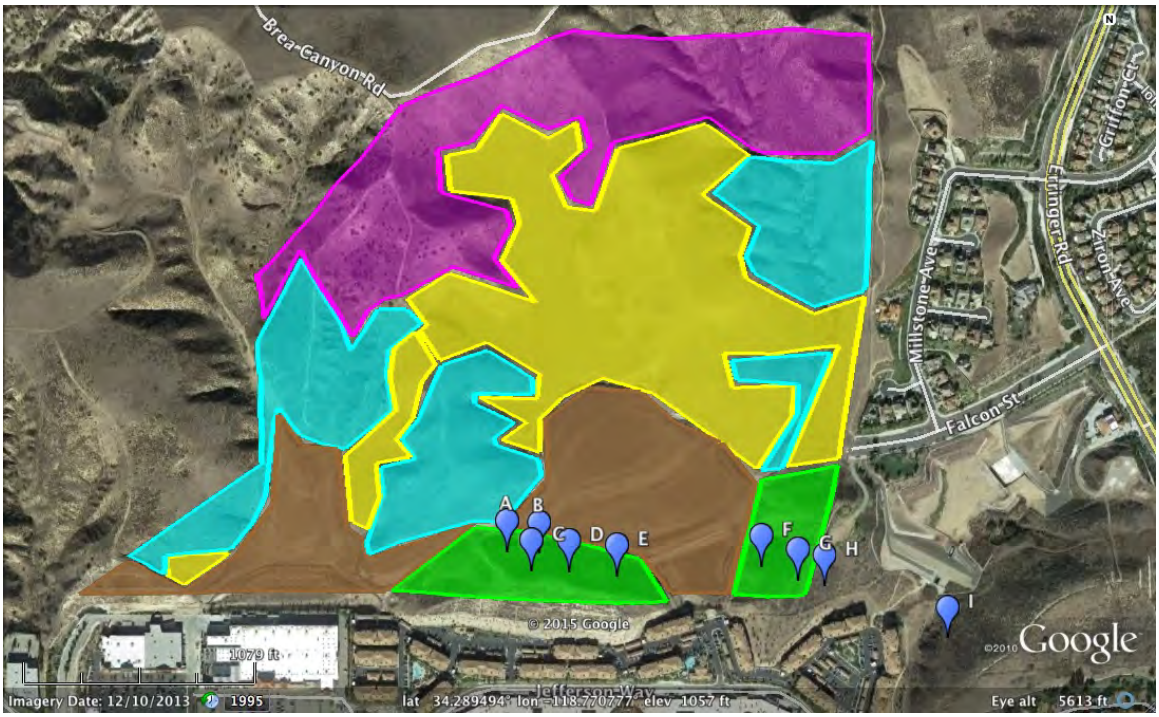
Table 1. Summary of California Gnatcatcher observations, North Canyon Ranch.

Date	**Time**	**Sex/#**	**Location (see map)**	**Notes**
4/19/15	8:44-8:52	Male (and female?)	B; flew to E	Possible second bird heard at B during initial observation of male
4/28/15	8:51	Male*	F	Vanished quickly; not refound
5/5/15	8:18-8:32	Male*	G; flew to H, then to I	Flew offsite to east
" "	9:57-10:14	Male*	B; later located at E	
5/12/15	7:58	Male*	F; flew to E	Not refound after long flight to E (across debris basin)
5/19/15	10:04	Male*	G (to F?)	Presumably flew toward F (over hill, where not visible)
" "	10:33	Male*	B; moved toward D	Called as it moved east to D
" "	10:56	Male*	G; flew to I	Flew offsite to east
5/27/15	10:50	Female?	Flew from E past D toward A	Saw briefly as it perched near D, then lost
" "	10:59-11:07	Male*	D; flew to C and back to D, then toward A	Possible territorial flights (male); no response to recording from either after 11:07 (searched for c. 1 hr)

* Presumably the same male, based on similar calls (scold alternating with "mew" call), plumage, and observed movements (long flights to and from consistent use areas and perches).

Figure 5a. Map of California Gnatcatcher activity at North Canyon Ranch site, April-May 2015 (see Table 1). Blue pins are detections, presumably of the same adult male. The black line denotes the subject property boundary. Detections outside the black line were made while standing on the subject property, and were of birds moving to or from the study area.

Figure 5b. Locations of California Gnatcatcher detections (blue pins), with vegetation. While not shown, the unburned, ungrazed coastal sage scrub (green) continues southeast off the site.



A total of 58 bird species were recorded using the habitat at or directly adjacent to the site, including aerial habitat (Table 2). Numerically, the most common species were found to be Mourning Dove, Anna's Hummingbird, Say's Phoebe, Common Raven, Horned Lark, Cliff Swallow, Bushtit, Rufous-crowned Sparrow, California Towhee, Lark Sparrow, Blue Grosbeak, House Finch and Lesser Goldfinch (see Table 2 for complete list, including Latin names). The site also supported breeding individuals of Greater Roadrunner, Rock Wren and Bell's Sparrow, the latter particularly localized in the Santa Susana/Santa Monica Mountains region.

Of the bird species recorded, just one may be considered Sensitive under state and/or federal law under certain conditions, the Rufous-crowned Sparrow (*Aimophila ruficeps*) treated as a California "Watchlist" species, formerly a California Bird Species of Special Concern. This scrub and grassland sparrow was found throughout the entire site, including within ruderal areas, and at least one family group was seen, indicating successful breeding onsite.

Table 1. Bird species list from North Canyon Ranch, April-May 2015.

	April	May
Species Name	High Count	High Count
California Quail - Callipepla californica	1	2
Turkey Vulture - Cathartes aura	1	3
Sharp-shinned Hawk - Accipiter striatus	1	--
Cooper's Hawk - Accipiter cooperii	1	--
Red-tailed Hawk - Buteo jamaicensis	2	1
Killdeer - Charadrius vociferus	2	1
Rock Pigeon - Columba livia	1	--
Eurasian Collared-Dove - Streptopelia decaocto	2	--
Mourning Dove - Zenaida macroura	9	16
Greater Roadrunner - Geococcyx californianus	4	1
White-throated Swift - Aeronautes saxatalis	2	2
Anna's Hummingbird - Calypte anna	5	5
Costa's Hummingbird - Calypte costae	2	5
Allen's Hummingbird - Selasphorus sasin	2	1
Black Phoebe - Sayornis nigricans	--	1
Say's Phoebe - Sayornis saya	7	6
Ash-throated Flycatcher - Myiarchus cinerascens	1	2
Cassin's Kingbird - Tyrannus vociferans	2	2
Western Kingbird - Tyrannus verticalis	1	1
American Crow - Corvus brachyrhynchos	1	1
Common Raven - Corvus corax	3	7
Horned Lark - Eremophila alpestris	11	9
Cliff Swallow - Petrochelidon pyrrhonota	22	13
Bushtit - Psaltriparus minimus	16	4
Rock Wren - Salpinctes obsoletus	5	2
House Wren - Troglodytes aedon	--	1
Bewick's Wren - Thryomanes bewickii	1	1
California Gnatcatcher - Polioptila californica	1	1
Wrentit - Chamaea fasciata	1	--
Western Bluebird - Sialia mexicana	1	3
California Thrasher - Toxostoma redivivum	1	1
Northern Mockingbird - Mimus polyglottos	1	2
European Starling - Sturnus vulgaris	22	--
Cedar Waxwing - Bombycilla cedrorum	--	20
Phainopepla - Phainopepla nitens	--	2
MacGillivray's Warbler - Geothlypis tolmiei	--	1
Yellow Warbler - Setophaga petechia	1	3
Wilson's Warbler - Cardellina pusilla	--	4

	April	May
Species Name	High Count	High Count
Spotted Towhee - Pipilo maculatus	5	3
Rufous-crowned Sparrow - Aimophila ruficeps	15	10
California Towhee - Melozone crissalis	15	14
Lark Sparrow - Chondestes grammacus	10	15
Bell's Sparrow - Artemisiospiza belli	2	2
Savannah Sparrow - Passerculus sandwichensis	3	--
Song Sparrow - Melospiza melodia	--	1
White-crowned Sparrow - Zonotrichia leucophrys	1	--
Western Tanager - Piranga ludoviciana	1	--
Blue Grosbeak - Passerina caerulea	6	6
Lazuli Bunting - Passerina amoena	--	1
Red-winged Blackbird - Agelaius phoeniceus	4	3
Brewer's Blackbird - Euphagus cyanocephalus	1	--
Brown-headed Cowbird - Molothrus ater	1	--
Hooded Oriole - Icterus cucullatus	2	5
Bullock's Oriole - Icterus bullockii	--	2
House Finch - Haemorhous mexicanus	54	29
Lesser Goldfinch - Spinus psaltria	8	16
Lawrence's Goldfinch - Spinus lawrencei	--	1
American Goldfinch - Spinus tristis	1	--

Table 2. Coordinates of locations of California Gnatcatcher activity.

Location	
A	
B	
C	
D	
E	
F	
G	
H	
I	

Cooper CAGN Report May 18, 2017

APPENDIX D

Cooper Ecological Monitoring, Inc.
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May 18, 2017

Mr. Dellith,

I certify that the information in this survey report fully and accurately represents my work.

Daniel S. Cooper
President, CEM, Inc.
USFWS Permit #TE 100008-2

Protocol survey for California gnatcatcher *Polioptila californica* at "North Canyon Ranch"

Ventura Co., California

Performed by:

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May 18, 2017

Summary
In this report I present findings from a protocol-level survey for the California Gnatcatcher *Polioptila californica* at "North Canyon Ranch", an area of undeveloped hills north of Simi Valley in unincorporated Ventura County, conducted between 29 March and 05 May 2017. A similar protocol survey was done in spring 2015. The 2017 survey failed to document the California Gnatcatcher at the site, which appeared unchanged since 2015.

Site Description

Location and Land Use

The area is entirely within the USGS "Simi" 7.5' topographic quadrangle and is centered on the following coordinates: 34.2844533° N, -118.777764° W (Figure 1a and 1b). It located north of the planned extension of Falcon Street between First Street and Erringer Road, to the north of the existing Archstone Apartments and Simi Valley Town Center (from: City of Simi Valley, Planning Division, Dept. of Environmental Services Initial Study; Figure 2a). The project encompasses roughly 160 acres. The initial proposal is to "subdivide the eastern portion of the property into approximately 212 single-family lots and up to 39 multi-family units, and subdivide the western portion of the property for development of a church, with an associated private elementary school to accommodate 150 students, a 115-unit senior assisted living facility and housing for six staff members. Finally, the project proposes to annex the entire property into the City of Simi Valley." Roughly half the acreage of the site (80 acres) is proposed as open space following development (Figure 2b). An updated tract map is being prepared that will replace the proposed church and elementary school with additional homes, and may change the proposed layout shown in Figure 2b.

Currently, most of the site is actively grazed by cattle, and only the southern boundary of the site, along the urbanized edge of Simi Valley, is ungrazed (where separated by a bared-wire fence from the grazed portion). Two debris basins, and areas of previously-graded building pads and artificial slopes are in the southern half of the site.

Figure 1a. Location of project (blue arrow).

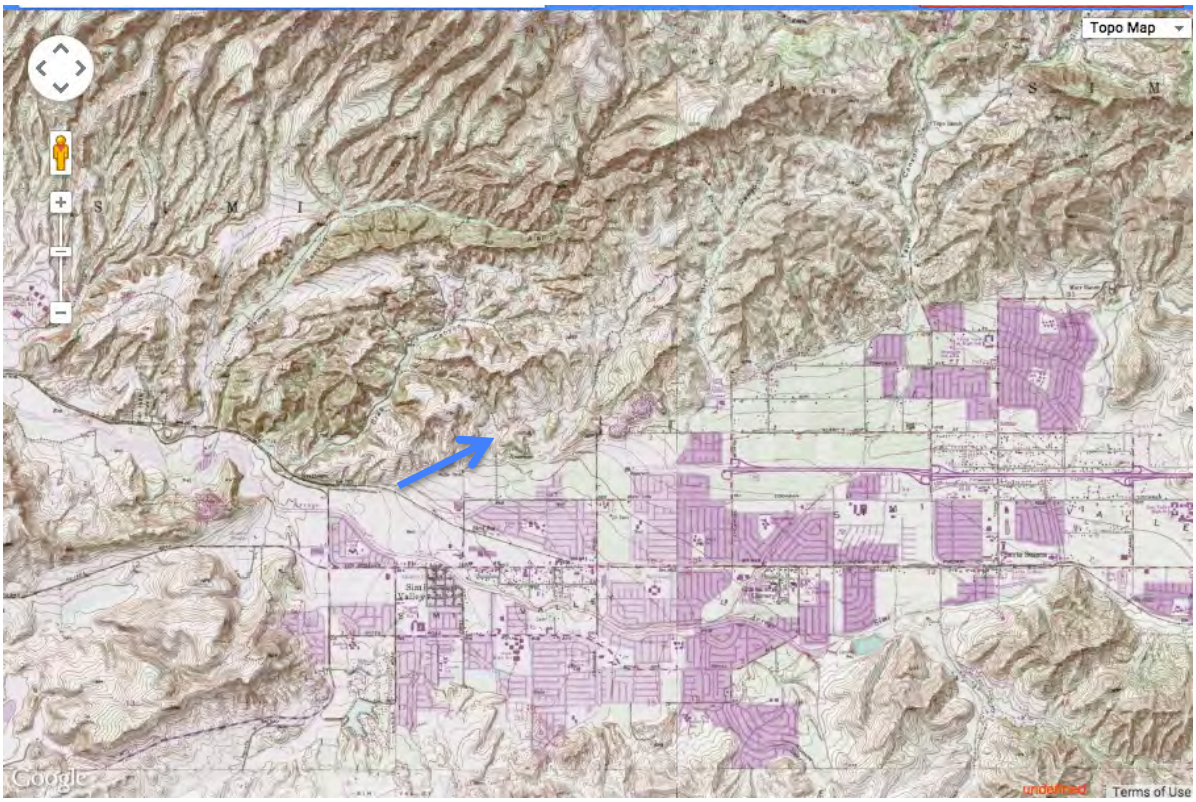


Figure 1b. Detail of location (blue box). Note: 118 Freeway is not visible on this map.

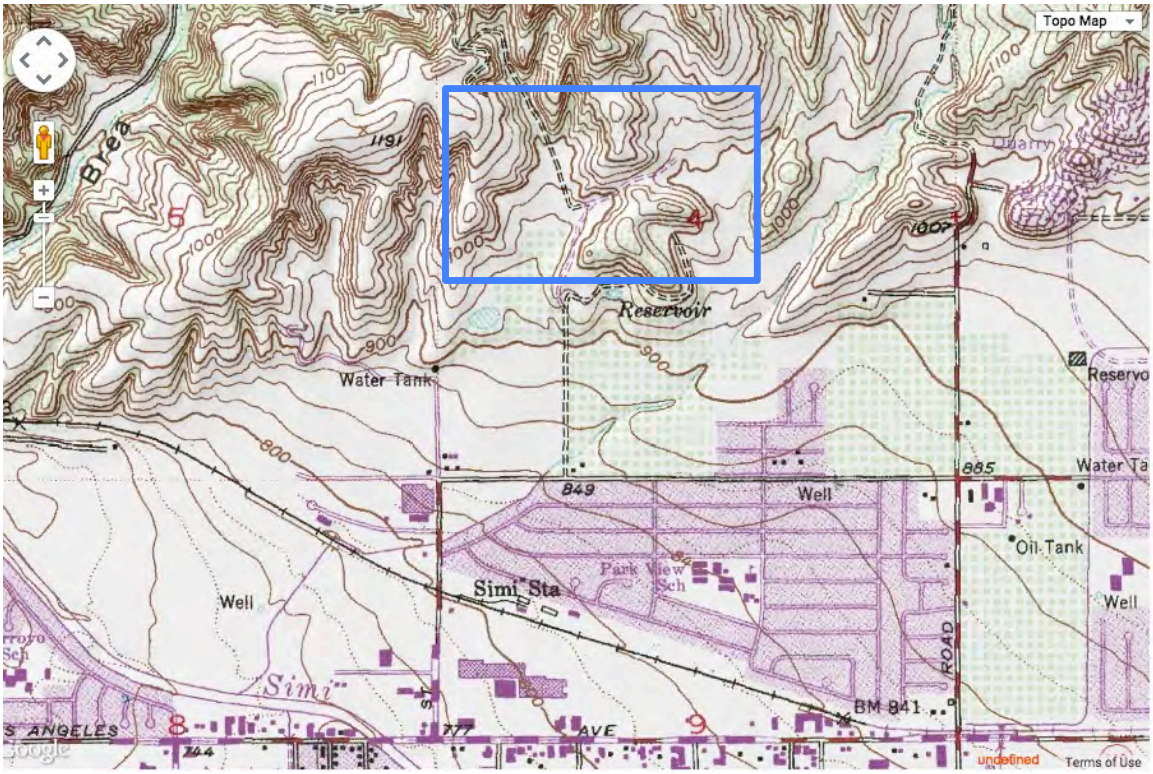


Figure 2a. Zoning map showing project site.

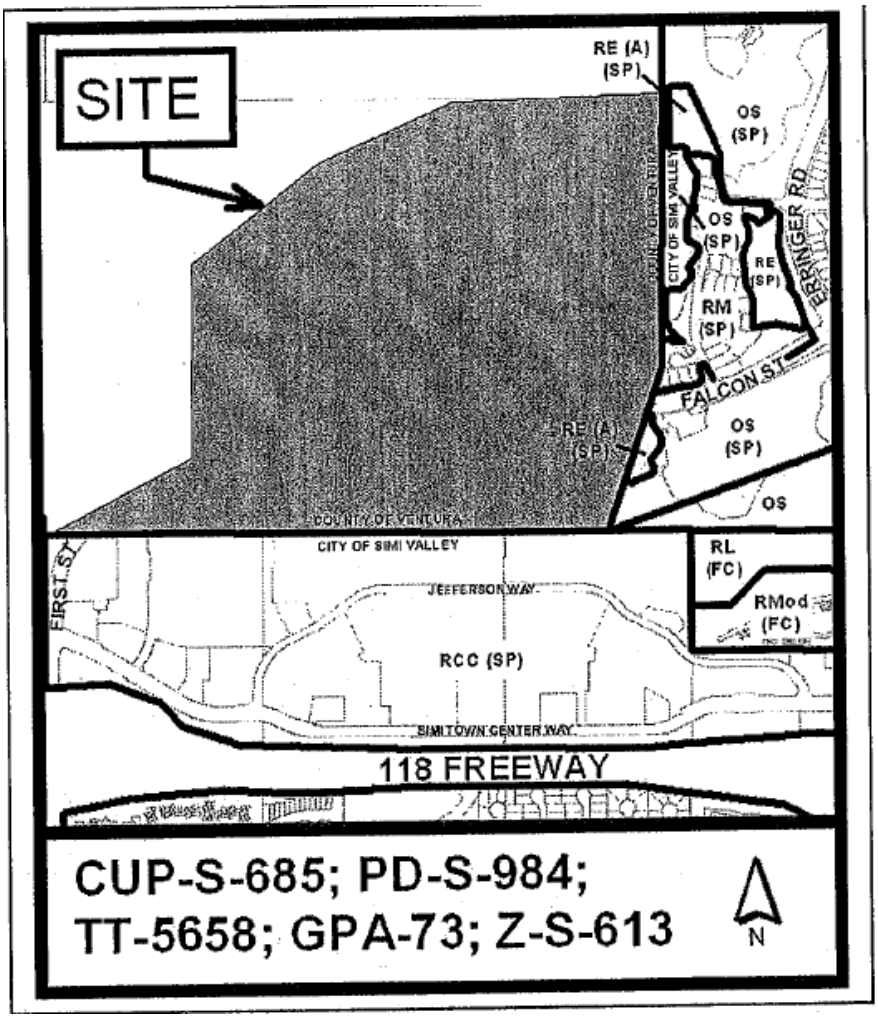
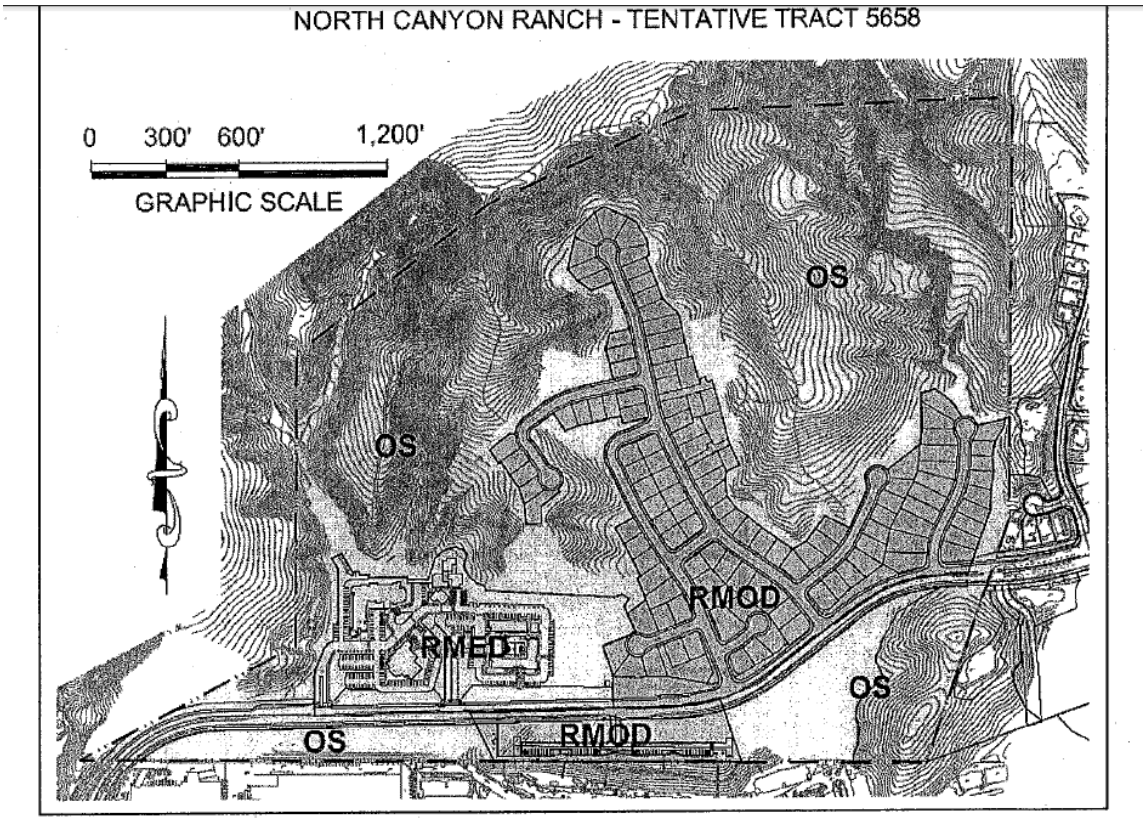


Figure 2b. Detail of project site showing locations of proposed impacts. Current northern end of First St. is at lower left corner of map; Erringer Rd. is partially shown along right edge. "OS" indicates proposed open space.



Vegetation

The entire site is approximately 160 acres, and is entirely vegetated and undeveloped (Figure 3a). Approximately 25 acres of the site would be described as highly disturbed, with soils that have been graded into building pads, and where vegetation is dominated by non-native grasses and mustards, among other weeds (including Russian thistle *Salsola tragus*), with only small, scattered native shrubs such as goldenbushes (*Ericameria palmeri* and *Isocoma menziesii*) and mulefat (*Baccharis salicifolius*). This largely herbaceous community extends across 41 acres, areas that might have been cleared in the past, but have not been graded and are now impacted primarily from grazing. Approximately 30 acres of the site, mainly on the highest slopes, resembles chaparral, featuring tall evergreen shrubs such as chaparral mallow (*Malacothamnus fasciculatus*), toyon (*Heteromeles arbutifolia*) and sumacs (*Rhus* spp.). This community is also grazed, particularly away from the steeper slopes, and appears to have burned recently. Thus, it is fairly open, and intergrades broadly with an open (grazed/burned) coastal sage scrub (also c. 30 acres), which is dominated by California sunflower (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*) and sages (*Salvia* spp.).

Coastal scrub vegetation is particularly intact and lush along the southern boundary (where ungrazed, and presumably not burned in the last major fire). This area, which is separated from the rest of the site by a bared-wire fence, extends over 10.7 acres (as measured using

Google Earth Pro) and is dotted with a wide variety of shrubs such as blue elderberry (*Sambucus nigra* ssp. *caerulea*) and holly-leaf redberry (*Rhamnus illicifolia*); small patches of cactus (*Opuntia littoralis*, *O. prolifera*) are scattered throughout the entire site (Figure 3b).

In 2017, a small vernal pool was discovered near the southern boundary of the site, between the two existing debris basins, which supports a limited but distinct vegetation community dominated by lowland cudweed (*Gnaphalium palustre*) and a small number of mulefat (*Baccharis salicifolia*). Presumably, this feature was not recognized in 2015 due to the extreme drought.

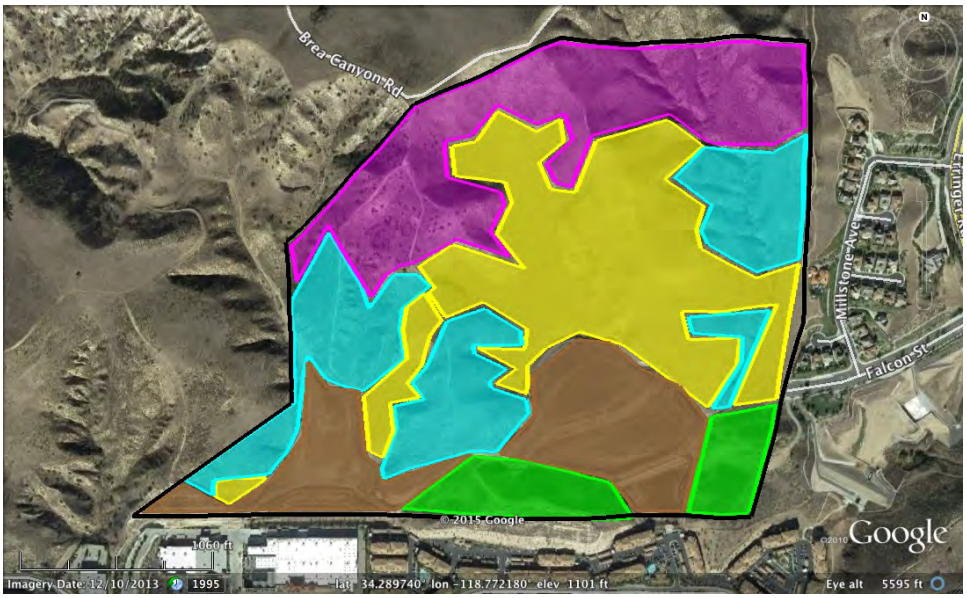


Figure 3a. Generalized vegetation of North Canyon Ranch, Ventura Co. Magenta = chaparral bush-mallow and other evergreen shrubs (grazed/burned); blue = coastal sage scrub (grazed/burned); yellow = annual grassland/herbaceous (grazed/burned); brown = highly disturbed (grazed); green = coastal sage scrub (ungrazed/high-quality).

Figure 3b. View (east) near the southern border of the property, showing patches of intact coastal sage scrub patches (at left) and grazed grassland/disturbed habitat at left.

Figure 3c. Typical view of sparse coastal sage scrub mixed with annual grassland near center of property.

Roughly 11 acres of intact, ungrazed/unburned scrub suitable for California Gnatcatcher was again found to be present on the entire property, located on two separate slopes along the southern boundary of the site, and separated by a debris basin (see areas shown in green in Figure 3a). The remaining scrub at the site is patchy and sparse, and does not appear to be suitable for the species (Figure 3c).

Effort

As required by survey protocol[1], I made six morning visits to the study area spaced one week apart, as follows (all 2017):

1. March 29 (7:33-9:53 AM; 60-72° F; clear/calm)
2. April 5 (8:10-10:15 AM; 59° F; clear/calm)
3. April 12 (9:40-11:40 AM; 60-70° F; clear/calm)
4. April 20 (8:24-9:45 AM; 60-65° F; clear/wind 3-10 mph)
5. April 27 (7:54-9:58; 60-69° F; clear/wind 0-15 mph)
6. May 5 (9:18-10:26; 58-64° F; overcast/wind 3-5 mph)

[1] United States Fish and Wildlife Service, 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines. February 28, 1997.

During this survey, I focused on areas with the densest patches of coastal sage scrub where the chances of finding and observing California Gnatcatchers would be highest, including the areas where I had detected the species in 2015 (i.e., along the southern boundary of the site). I also visited at least a portion of the grazed/sparse coastal sage scrub habitat in the interior of the site during each visit, to make sure I was not missing any birds here. I employed recordings of California Gnatcatcher vocalizations (using an iPhone) during each survey, and noted numbers of all other bird species during each visit.

Findings and Discussion

No California Gnatcatchers were detected during this survey.

A total of 56 bird species were recorded using the habitat at or directly adjacent to the site, including aerial habitat (Table 2). Numerically, the five most common species were found to be Cliff Swallow, White-crowned Sparrow, Rufous-crowned Sparrow, California Towhee, and Lesser Goldfinch (see Table 2 for complete list, including Latin names). The site also supported breeding individuals of Rock Wren and Bell's Sparrow, the latter particularly localized in the Santa Susana/Santa Monica Mountains region.

Of the bird species recorded, two may be considered Sensitive under state and/or federal law under certain conditions, the Rufous-crowned Sparrow (*Aimophila ruficeps*) treated as a California "Watchlist" species, formerly a California Bird Species of Special Concern. This scrub and grassland sparrow was found throughout the entire site, including within ruderal areas, and at least one family group was seen, indicating successful breeding onsite.

California Horned Lark (*Eremophila alpestris actia*) was documented breeding at the site, with multiple singing birds through the study, and a fledgling seen on 27 April 2017. This species favors sparsely-vegetated, often flat habitat, and was most common in areas along the property's southern border that had been previously graded.

A Yellow Warbler (*Setophaga petechia*), a California Species of Special Concern, detected on 5 May 2017 was likely a transient. It was heard singing outside (to the east of) the property boundary.

Table 2. Bird species list from North Canyon Ranch, March-May 2017. "X" denotes birds seen flying over site.

Species Name	March (29) High Count	April High Count	May (5) High Count
California Quail - Callipepla californica	8	4	2
Turkey Vulture - Cathartes aura	--	1	1
Red-tailed Hawk - Buteo jamaicensis	1	3	--
Killdeer - Charadrius vociferus	--	3	2
Least Sandpiper - Calidris minutilla	--	X	--
Rock Pigeon - Columba livia	X	--	--
Mourning Dove - Zenaida macroura	2	6	4
Greater Roadrunner - Geococcyx californianus	--	1	--
Vaux's Swift - Chaetura vauxi	--	X	--
White-throated Swift - Aeronautes saxatalis	--	X	X
Anna's Hummingbird - Calypte anna	3	5	3
Costa's Hummingbird - Calypte costae	--	6	5
Allen's Hummingbird - Selasphorus sasin	1	2	4
Black Phoebe - Sayornis nigricans	--	1	--
Say's Phoebe - Sayornis saya	4	5	4
Ash-throated Flycatcher - Myiarchus cinerascens	1	2	1
Cassin's Kingbird - Tyrannus vociferans	3	4	3
Western Kingbird - Tyrannus verticalis	2	4	3
California Scrub-Jay - Aphelocoma californica	2	2	--
American Crow - Corvus brachyrhynchos	--	3	2
Common Raven - Corvus corax	2	2	6
Horned Lark - Eremophila alpestris	3	13	6
Northern Rough-winged Swallow - Stelgidopteryx serripennis	--	2	2
Barn Swallow - Hirundo rustica	--	1	--
Cliff Swallow - Petrochelidon pyrrhonota	8	20	10
Bushtit - Psaltriparus minimus	1	5	4
Rock Wren - Salpinctes obsoletus	1	6	7
House Wren - Troglodytes aedon	--	1	1
Bewick's Wren - Thryomanes bewickii	1	5	4
Wrentit - Chamaea fasciata	2	4	--
Western Bluebird - Sialia mexicana	--	1	1
California Thrasher - Toxostoma redivivum	1	4	2
Northern Mockingbird - Mimus polyglottos	--	2	3
American Pipit - Anthus rubescens	X	X	--
Cedar Waxwing - Bombycilla cedrorum	--	--	X
Common Yellowthroat - Geothlypis trichas	4	7	--
Yellow Warbler - Setophaga petechia	--	1	--

Species Name	March (29) High Count	April High Count	May (5) High Count
Wilson's Warbler - Cardellina pusilla	--	1	--
Lark Sparrow - Chondestes grammacus	4	10	6
White-crowned Sparrow - Zonotrichia leucophrys	25	10	--
Bell's Sparrow - Artemisiospiza belli	--	3	--
Vesper Sparrow - Pooecetes gramineus	--	1	--
Savannah Sparrow - Passerculus sandwichensis	8	2	--
Song Sparrow - Melospiza melodia	--	--	1
Lincoln's Sparrow - Melospiza lincolnii	4	3	--
California Towhee - Melozone crissalis	6	12	9
Rufous-crowned Sparrow - Aimophila ruficeps	10	13	7
Spotted Towhee - Pipilo maculatus	--	2	--
Blue Grosbeak - Passerina caerulea	--	2	--
Lazuli Bunting - Passerina amoena	--	5	3
Western Meadowlark - Sturnella neglecta	--	1	--
Hooded Oriole - Icterus cucullatus	--	3	1
House Finch - Haemorhous mexicanus	4	13	3
Lesser Goldfinch - Spinus psaltria	2	10	15
Lawrence's Goldfinch - Spinus lawrencei	X	X	--
House Sparrow - Passer domesticus	--	1	3

TWB CAGN Report Jul 11, 2023

APPENDIX D

TW Biological Services, LLC
1717 Meander Drive, Simi Valley, CA 93065
(949) 463-3497

July 11, 2023 ENV-01-23

Ms. Laura Kaufman
Envicom Corporation
4165 E. Thousand Oaks Blvd., Suite 290
Westlake Village, CA 91362

Subject: ***Presence/Absence Surveys for Coastal California Gnatcatcher on the North Canyon Ranch Residential Project, Ventura County, California. Permit Number TE-19843C-0***

Dear Ms. Kaufman:

A focused coastal California gnatcatcher (*Polioptila californica californica*) survey was conducted by TW Biological Services wildlife biologist Jennifer Sexton, permit number TE-19843C-0, for the North Canyon Ranch Residential Project site between 15 April and 2 June, 2023. The survey consisted of six presence/absence surveys within suitable habitat on the property.

The coastal California gnatcatcher (CAGN) is a California Department of Fish and Game (CDFG) species of special concern and a federally-listed threatened species. It is a non-migratory species that prefers sage scrub habitat with California sagebrush (*Artemisia californica*) as its dominant or codominant species. It is also known to utilize chaparral, grassland and riparian habitats bordered by sage scrub for foraging or dispersal. It typically nests at elevations below 950 feet on slopes less than 40 percent but may occur in areas of higher elevation and steeper terrain. The species is threatened primarily by loss, degradation, and fragmentation of sage scrub habitat and is also impacted by brown-headed cowbird parasitism.

PROJECT LOCATION

The North Canyon Ranch Residential Project site includes approximately 160-acres located in the northwestern portion of Simi Valley north of the 118 Freeway, east of First Street, west of Erringer Road, and immediately north of Simi Valley Town Center and an existing multi-family residential development known as the Avalon. (Figure 1, Appendix A). The property is currently in unincorporated Ventura County and is proposed to be annexed to the City of Simi Valley.

General Existing Conditions

The project site is largely undeveloped with the exception of two debris basins, and sections of past grading that include artificial fill and slopes located in the southern one-third of the site. Within the areas of past grading, islands of natural area remain that includes a north-facing slope located along the southern boundary of the area just north of the Avalon apartments and at the southeast corner of the property.

Elevations on the property range from about 970 ft above mean sea level near the mall site to about 1320 ft above mean sea level on isolated peaks along the ridge that borders the northern edge of the site. The hilly topography is characterized by ridges on both the east and west boundaries, with two prominent south to southeast trending ridges bounding three drainages that extend from the northwest to southeast.

A map of vegetation communities was prepared by Envicom Corporation and was provided for our use in this report. The map is included here in Figure 2 (Appendix A; Envicom Corporation 2023). Areas of coastal scrub exist in the northwest and northeast parts of the site with the majority of the remainder of the site being "non-native and native herbaceous" interspersed with islands and corridors of coastal scrub. Small areas of riparian scrub occur in the west and east drainages and detention basins; small areas of prickly-pear cactus (*Opuntia littoralis*) are present in the northeast corner of the site.

Coastal scrub communities include: California sagebrush scrub (*Artemisia californica*), California sagebrush-black sage scrub (*Artemisia californica-Salvia mellifera*), deerweed scrub (*Acmispon glaber*), California brittlebush scrub (*Encelia californica*), California brittlebush-California buckwheat scrub (*Encelia californica-Eriogonum fasciculatum*) , California buckwheat scrub, sawtooth goldenbush scrub (*Hazardia squarrosa*), lemonade berry scrub-black sage-California sagebrush (*Rhus Integrifolia-Salvia mellifera- Artemisia californica*), purple sage-California sagebrush scrub (*Salvia leucophylla- Artemisia californica*), black sage scrub (*Salvia mellifera*), and California brittlebush-black sage scrub (*Encelia californica- Salvia mellifera*).

Riparian scrub communities include mulefat scrub (*Baccharis salicifolia*) and blue elderberry scrub (*Sambucus nigra ssp. cerulea*).

Canyon bottom areas in the southern third of the site have been mass graded and are highly disturbed. Vegetation in these areas is largely dominated by non-native grasses and herbaceous weeds.

Areas of suitable coastal California gnatcatcher habitat include a ridge along the southern border, just north of the Avalon apartments, a west facing slope in the southeastern corner, an east facing slope along the western border, an east facing slope in the northeast corner, and a bench in the canyon bottom above the incised drainage on the northeast part of the site (Figure 3, Appendix A). Vegetation in these areas include California sagebrush scrub, purple sage-California sagebrush scrub, and California sagebrush-black sage scrub.

METHODS

The focused survey for coastal California gnatcatcher was conducted on the North Canyon Ranch Project site between 15 April and 2 June 2023 by TW Biological Services wildlife biologist Jennifer Sexton (*Table 1*). Mrs. Sexton holds a federal permit (TE-19843C-0) to conduct surveys for the California gnatcatcher. The survey was conducted following the currently accepted protocol of the U.S. Fish and Wildlife Service and the Scientific Review Panel for areas outside NCCP enrollments (USFWS, 1997). The survey included six surveys of the project area at approximately weekly intervals. The route used to survey the habitat varied little and was arranged to ensure complete coverage of the habitat and site. Binoculars (10 x 40) were used to aid in detecting and identifying bird species. The weather conditions were generally mild as shown in the table below. A tape of recorded vocalizations was used as necessary in order to elicit responses from the species. The tape was played approximately every 100 feet or more frequently if it appeared that there was sound attenuation due to topography.

TABLE 1
North Canyon Ranch Survey Dates and Conditions

Date	Time	Temperature (°F)	Wind (MPH)	Cloud Cover (%)
4/15/23	0700-1135	55-76	0-0	0
4/22/23	0630-1045	60-65	0-1	100
5/8/23	0700-1110	62-70	0-1	0
5/15/23	0730-1110	60-72	0-0	50
5/25/23	0620-0940	55-60	0-1	100
6/2/23	0640-1020	57-64	0-0	100

RESULTS

A single coastal California gnatcatcher pair was detected onsite during the 2023 surveys. This pair was located on the ridge along the southern boundary of the property, just north of the Avalon apartments. One or both adults were observed on each of the six survey dates and the pair was observed with juveniles on June 2 (Table 2; and Figure 4, Appendix A).

TABLE 2
Coastal California Gnatcatcher Locations and Observations

Date	Time	Comments
4/15/23	0930-0945	Male responded to tape, called briefly and flew west, then quiet
4/22/23	0745-0805	Pair observed calling and moving together, moved north
5/8/23	0700-1010	Pair in close vicinity of each other, calling and moving east
5/15/23	0845-0915	Pair observed in different locations on north slope, both calling briefly
5/25/23	0815-0840	Male observed calling and moving from west to east, then back again, then quiet
6/2/23	0710-0730	Pair observed with young. Heard at least 2 juveniles

Survey routes are included on Figure 5 (Appendix A). Other wildlife detected are included in Appendix B.

If you have any questions or comments, please do not hesitate to contact me at (949) 463-3497.

Very truly yours,

Jennifer Sexton

Jennifer Sexton
Principal /Senior Wildlife Biologist
TW Biological Services

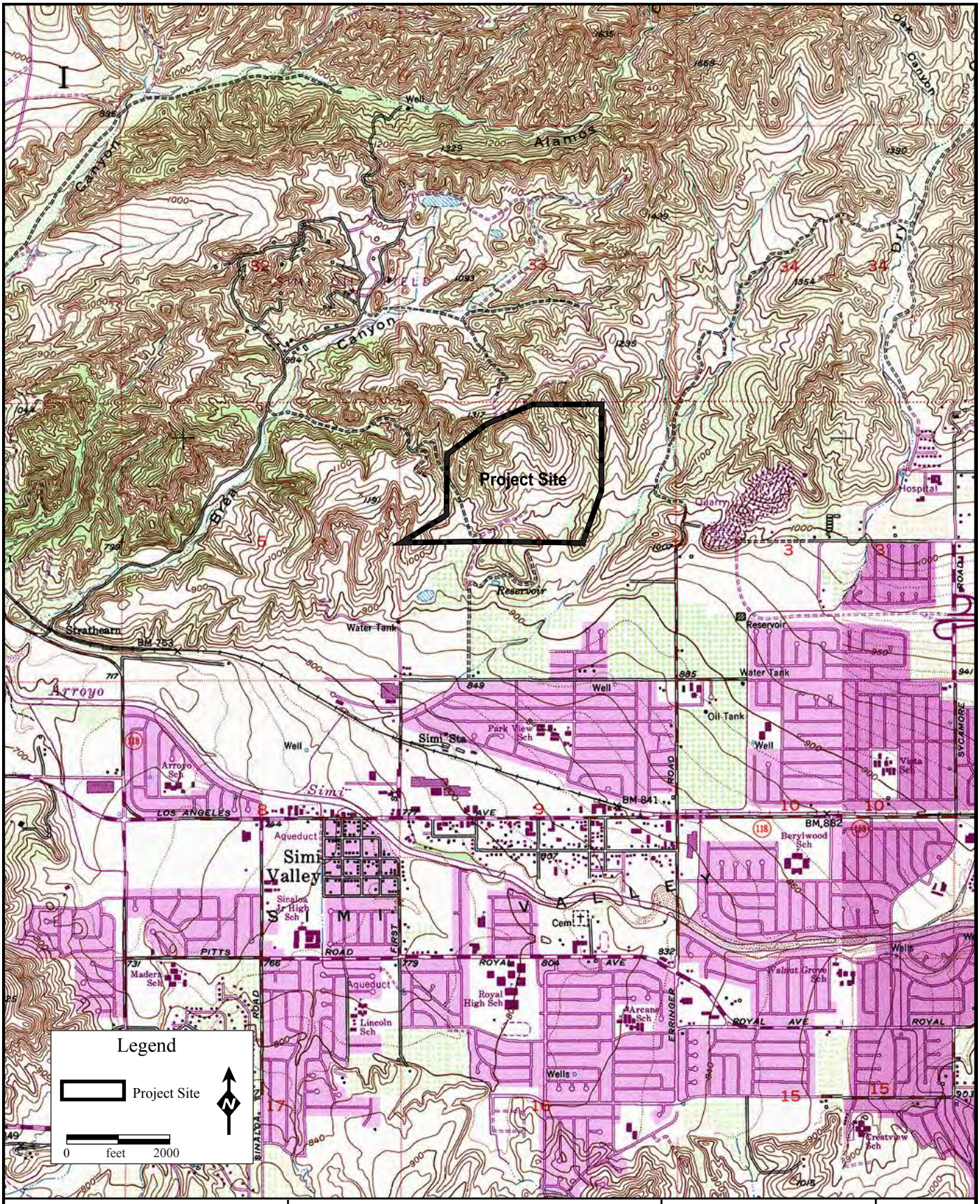
Att. *Figures 1 – 5, Appendix A*
Cumulative List of Wildlife Species Observed Onsite, Appendix B
cc: *Chris Kofron, USFWS Ventura*

REFERENCES

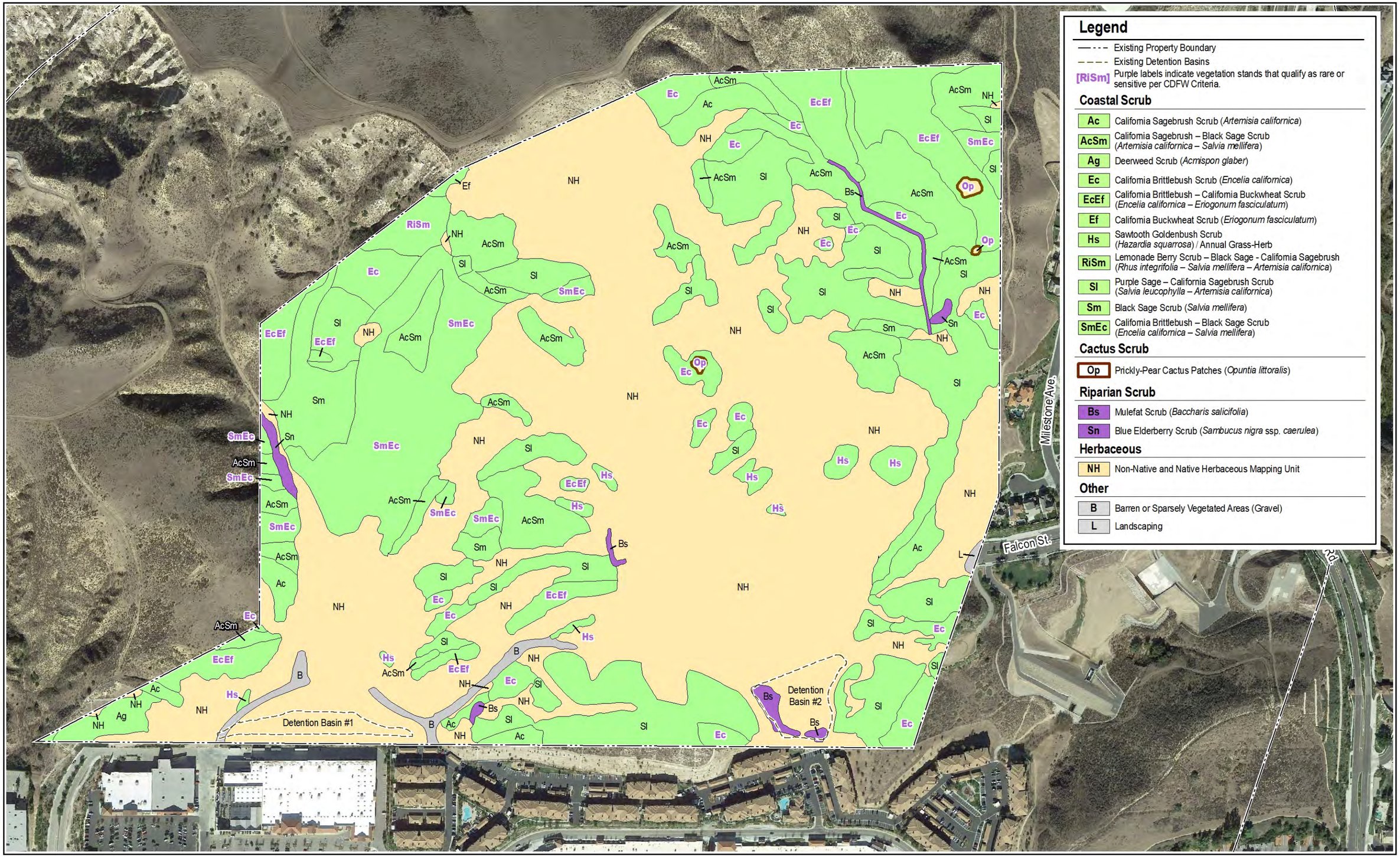
U.S. Fish and Wildlife Service (USFWS). 1997. Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines. February 28, 1997.

APPENDIX A

FIGURES



TW Biological Services	NORTH CANYON RANCH DEVELOPMENT PROJECT CALIFORNIA GNATCATCHER SURVEY Project No: ENV-01-23	Project Site Source: USGS 7.5 Minute Quadrangle Simi Valley West	FIGURE 1



Aerial Source: GoogleEarth Pro, Dec. 10, 2013.

NORTH CANYON RANCH RESIDENTIAL PROJECT

Vegetation Map

FIGURE

2

envicom

0 350 Feet

TW Biological Services

NORTH CANYON RANCH
RESIDENTIAL PROJECT

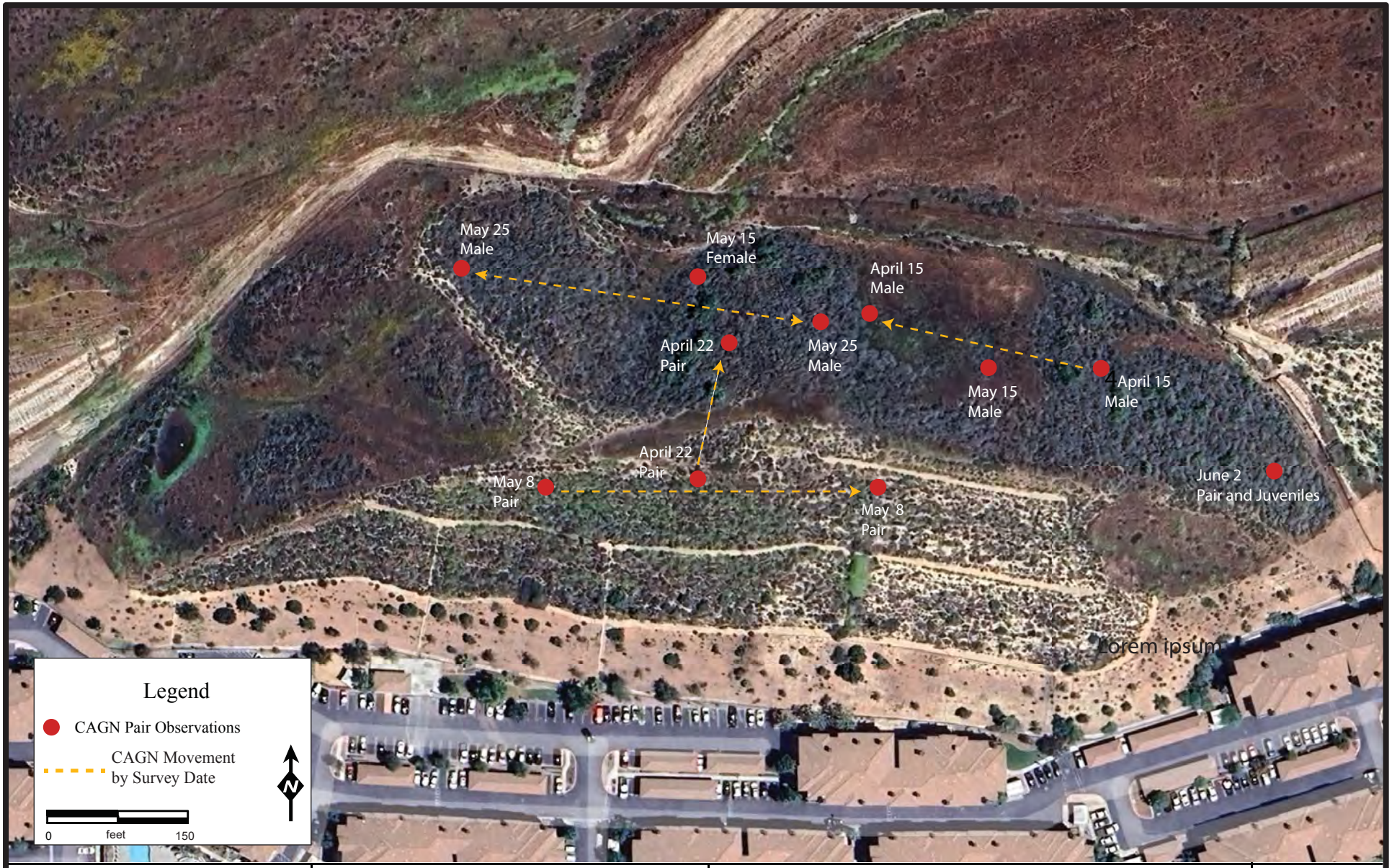
CALIFORNIA GNATCATCHER SURVEY

Project No: ENV-01-23

California Gnatcatcher Habitat

Aerial Source: Google Earth Pro June 2023

FIGURE
3



TW Biological Services	NORTH CANYON RANCH RESIDENTIAL PROJECT CALIFORNIA GNATCATCHER SURVEY Project No: ENV-01-23	California Gnatcatcher Observations Aerial Source: Google Earth Pro June 2023	FIGURE 4

TW Biological Services

NORTH CANYON RANCH
RESIDENTIAL PROJECT

CALIFORNIA GNATCATCHER SURVEY

Project No: ENV-01-23

Aerial Photograph of Project Site and Survey Route

Aerial Source: Google Earth Pro June 2023

FIGURE

5

APPENDIX B

CUMULATIVE LIST OF WILDLIFE SPECIES OBSERVED ONSITE

BIRDS

ARDEIDAE - HERONS
Ardea alba - great egret

CATHARTIDAE - NEW WORLD VULTURES
Cathartes aura - turkey vulture

ACCIPITRIDAE - HAWKS
Accipiter cooperii - Cooper's hawk
Buteo jamaicensis - red-tailed hawk
Buteo lineatus - red-shouldered hawk

PHASIANIDAE - PHEASANTS & QUAILS
Callipepla californica - California quail

COLUMBIDAE - PIGEONS & DOVES
Zenaida macroura - mourning dove

CUCULIDAE - CUCKOOS & ROADRUNNERS
Geococcyx californianus - greater roadrunner

APODIDAE - SWIFTS
Aeronautes saxatalis - white-throated swift

TROCHILIDAE - HUMMINGBIRDS
Calypte anna - Anna's hummingbird
Selasphorus sasi - Allen's hummingbird

TYRANNIDAE - TYRANT FLYCATCHERS
Myiarchus cinerascens - ash-throated flycatcher
Sayornis nigricans - black phoebe
Sayornis saya - Say's phoebe
Tyrannus vociferans - Cassin's kingbird

ALAUDIDAE - LARKS
Eremophila alpestris - horned lark

HIRUNDINIDAE - SWALLOWS

Stelgidopteryx serripennis - northern rough-winged swallow
Petrochelidon pyrrhonota - cliff swallow

CORVIDAE - JAYS & CROWS

Corvus brachyrhynchos - American crow
Corvus corax - common raven

AEGITHALIDAE - BUSHTITS

Psaltriparus minimus – bushtit

TROGLODYTIDAE - WRENS

Thryomanes bewickii - Bewick's wren
Troglodytes aedon - house wren

SYLVIIDAE - GNATCATCHERS

Polioptila caerulea - blue-gray gnatcatcher
Polioptila californica - California gnatcatcher

TURDIDAE - THRUSHES & BABBLERS

Sialia mexicana - western bluebird

TIMALIIDAE - LAUGHINGTHRUSH AND WRENTIT

Chamaea fasciata – wrentit

MIMIDAE - THRASHERS

Mimus polyglottos - northern mockingbird
Toxostoma redivivum - California thrasher

PARULIDAE - WOOD WARBLERS

Geothlypis trichas - common yellowthroat
Vermivora celata - orange-crowned warble

EMBERIZIDAE - BUNTINGS & SPARROWS

Aimophila ruficeps - rufous-crowned sparrow
Ammodramus savannarum - grasshopper sparrow
Chondestes grammacus - lark sparrow
Junco hyemalis - dark-eyed junco
Pipilo crissalis - California towhee
Pipilo maculatus - spotted towhee
Zonotrichia leucophrys - white-crowned sparrow

CARDINALIDAE - CARDINALS AND GROSBEAKS

Passerina amoena - lazuli bunting
Passerina caerulea - blue grosbeak

ICTERIDAE - BLACKBIRDS & ORIOLES

Agelaius phoeniceus - red-winged blackbird
Icterus cucullatus - hooded oriole

FRINGILLIDAE - FINCHES

Carpodacus mexicanus - house finch
Carduelis psaltria - lesser goldfinch

MAMMALS

LEPORIDAE - HARES & RABBITS

Sylvilagus audubonii - desert cottontail

SCIURIDAE - SQUIRRELS

Spermophilus beecheyi - California ground squirrel

REPTILES

IGUANIDAE - IGUANID LIZARDS

Uta stansburiana – side-blotched lizard

BUTTERFLIES AND MOTHS

PIERIDAE - WHITES AND SULFURS

Pieris rapae rapae - cabbage butterfly

Jurisdictional Delineation

APPENDIX D

Jurisdictional Delineation

North Canyon Ranch

Unincorporated Ventura County
Santa Susana Mountains,
County of Ventura, California

PREPARED FOR:

City of Simi Valley
Department of Environmental Services
1692 Sycamore Drive
Simi Valley, California 93065
Attn: Ms. Cynthia Sabatini
(805) 583-6776

PREPARED BY:

ENVICOM CORPORATION
4165 E. Thousand Oaks Blvd., Suite 290
Westlake Village, California 91362
Attn: Mr. Tyler Barns
(818) 879-4700

June 25, 2015

NORTH CANYON RANCH

JURISDICTIONAL DELINEATION

Unincorporated Ventura County
Santa Susana Mountains,
County of Ventura, California

Prepared for:

CITY OF SIMI VALLEY
Department of Environmental Services
1692 Sycamore Drive
Simi Valley, California 93065
Attn: Ms. Cynthia Sabatini

Prepared by:

ENVICOM CORPORATION
4165 E. Thousand Oaks Boulevard, Suite 290
Westlake Village, California 91362
Attn: Mr. Tyler Barns

June 25, 2015

1.0 INTRODUCTION

1.1 Purpose of the Study

The City of Simi Valley (City) engaged Envicom Corporation (Envicom) to complete a jurisdictional delineation for the proposed North Canyon Ranch development (proposed project) located north of the Jefferson Way and west of Falcon Street, within the City of Simi Valley's sphere of influence, but in unincorporated Ventura County, California (see **Figure 1, Regional Location Map**). The project site is bordered by the Simi Valley Town Center shopping mall to the south, the Highlands at Big Sky residential development to the east, and open space to the north and west. The survey was conducted to identify aquatic features that meet the physical criteria and regulatory definitions of "Waters of the United States" (WOUS) and "Waters of the State of California" (WOS), and associated riparian habitat.

As required, this delineation was conducted in accordance with the statutory guidelines of the regulations listed below:

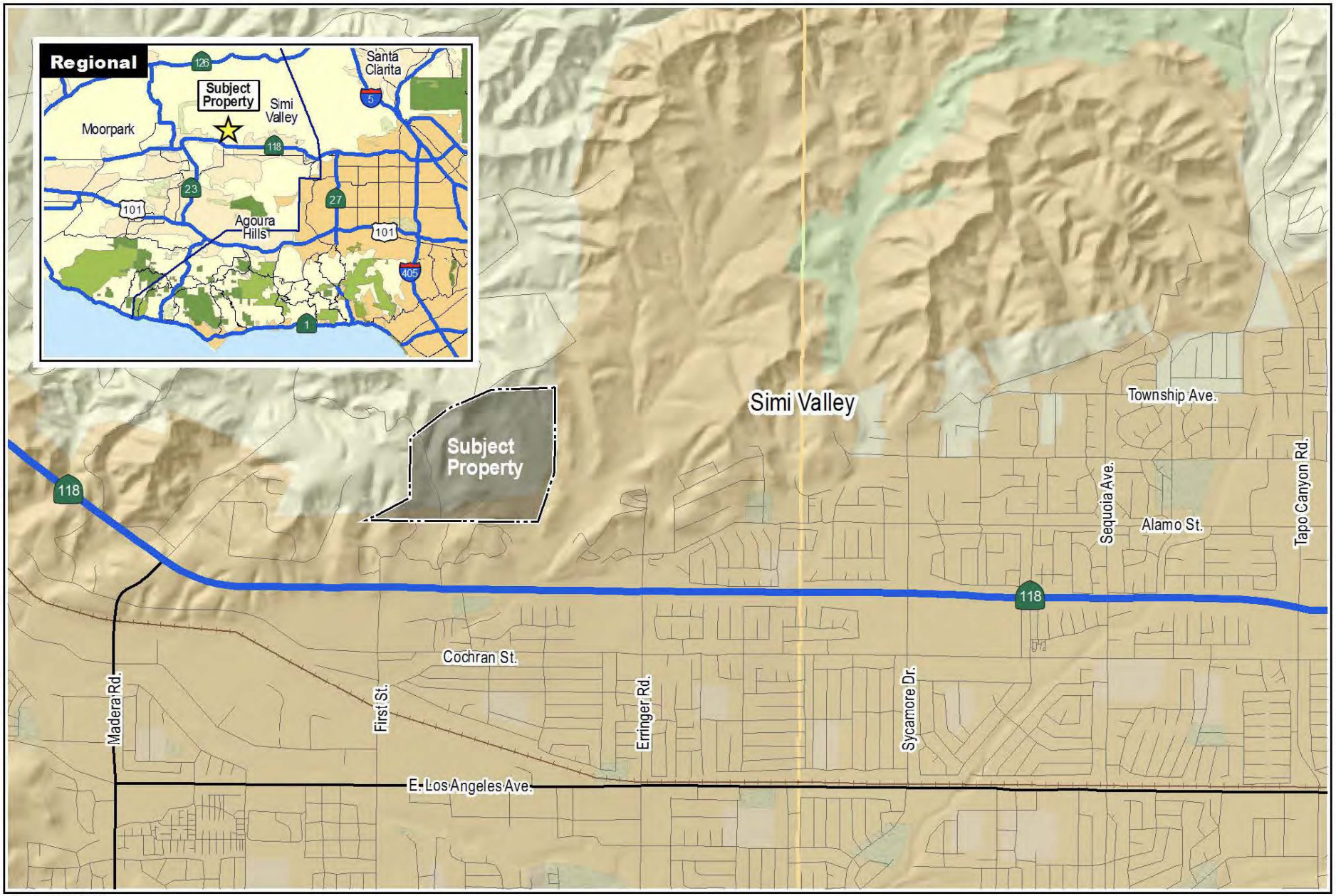
- California Department of Fish and Wildlife (CDFW) under California Fish and Game Code section 1600 *et seq*.
- United States Army Corps of Engineering (ACOE) under Section 404 of the Clean Water Act.
- Regional Water Quality Control Board (RWQCB) Water Quality Certification under Section 401 of the Clean Water Act.

1.2 Survey Area

The map location of the project site is within the NW 1/4 of Section 4, T3N, R19W, of the USGS 7.5 Minute Simi Valley West topographical quadrangle, as shown on **Figure 2, USGS Project Location**. Elevation in the survey area ranges from approximately 980 – 1,325 feet above mean sea level (amsl). The survey area encompasses potential jurisdictional features within or abutting Assessors Parcel Number 6150-160-455, which includes approximately 160 acres of open space within the foothills of the Santa Susana Mountains. The survey area is loosely bound by Jefferson Way to the south and Brea Canyon Road to the north and the eastern and western extent of the main drainages within the parcel or a polygon equivalent to a half-mile in length by a half-mile in width.

1.3 Site Characteristics

The site is located in the Simi Valley Groundwater Basin (California Department of Water Resources 2004). The basin is bounded on the north and northeast by the Santa Susana Mountains and the Simi fault and on the south and southwest by the Simi Hills. Average annual precipitation ranges from 16 to 20 inches and runoff discharges into the Arroyo Simi and flows west to join Arroyo Los Posas and then Calleguas Creek. Annual average temperature in the vicinity of the study area is 62.6 degrees Fahrenheit (°F). Average low temperature is 51°F and average high temperature is 74.3°F (US Climate Data 2015). The nearest available Wetland Determination (WETS) data is for Piru, which is located 8.5 miles northwest of the site and on the other side of the Santa Susana Mountains (Station # 046940). Data from this locations shows that 2013 was a dry year with an annual average precipitation of 0.33 inches. However, 2014 was considerably wetter with an annual average of 0.95 inches. The higher average is attributed to a wet February (3.09 inches) and December (4.94 inches). As of April 2015, the area has had an annual average of 0.88 inches. The most recent precipitation recorded for Simi Valley prior to the



Source: ESRI, 2010.

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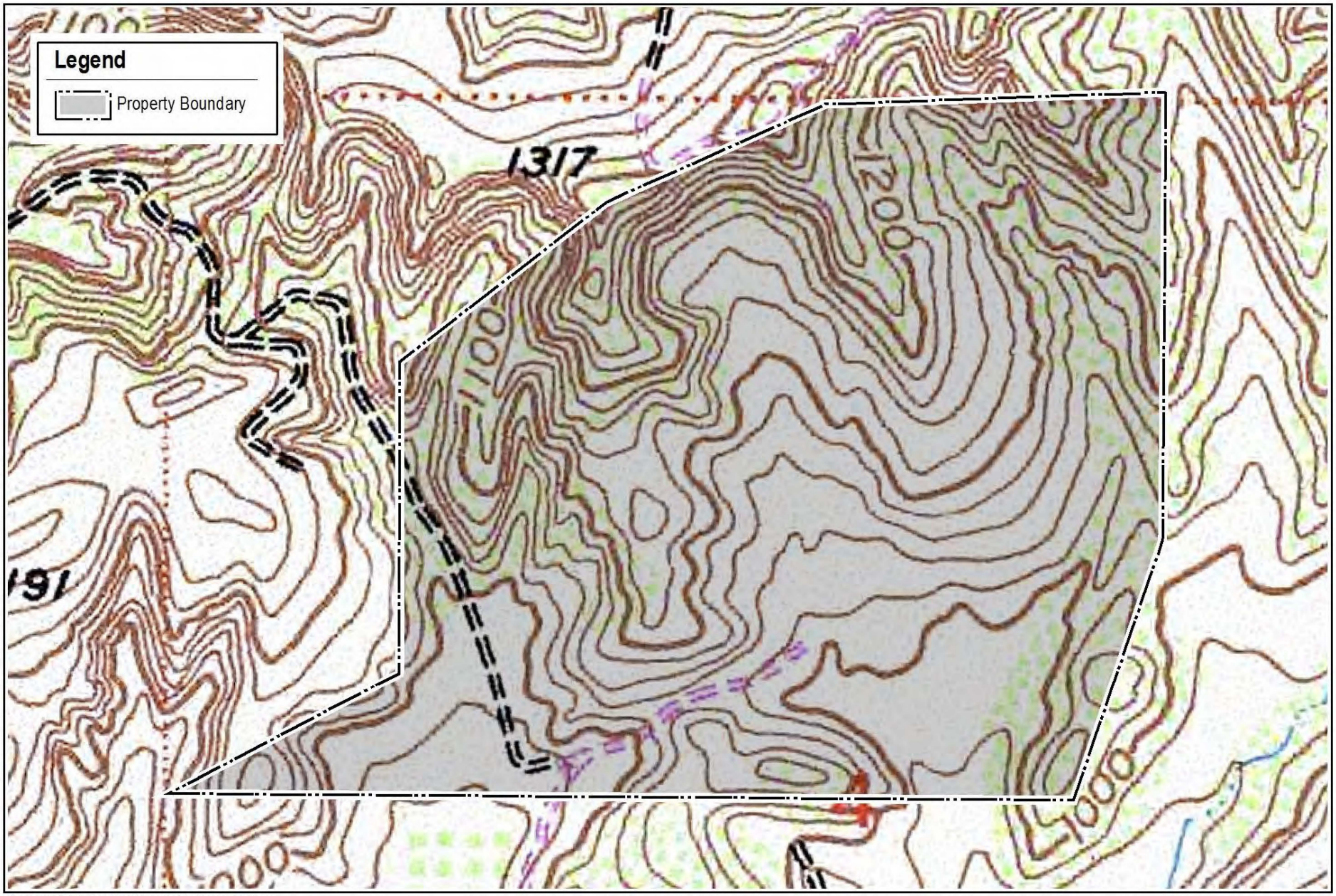
Regional Location Map

0 0.25 0.5 Miles

FIGURE 1



Source: U.S.G.S. combined Topographic Quadrangle base.

NORTH CANYON RANCH - JURISDICTIONAL DELINEATION

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U.S.G.S. Project Location

0 250 500 Feet

FIGURE 2

May survey was 0.02 inches on April 7, 2015, with approximately 0.65 inches of precipitation in March (Weather Underground 2015).

A majority of the area has been modified (i.e., graded or used to store fill material) as part of the Simi Town Center Project or managed for grazing. There are no inhabited dwellings located in the survey area. Few trees occur in the survey area, but several trees are present immediately south of the survey area, north of the Lowe's Home Improvement store and scattered trees and tree rows occur to the east associated with the Highlands at Big Sky residential development. In addition, there are two large drainage basins in the southern portion of the site and several man-made drainages and concrete v-ditches throughout the property (**Figure 3, Aerial of the Project Site**).

Directions to the Project Site

Directions to the survey area are provided from the ACOE Ventura office located at 2151 Alessandro Drive, Suite 110, Ventura, California to the location where First Street is adjacent to the property entrance.

1. Get on US-101 South/Ventura Fwy from Alessandro Dr and E Harbor Blvd.
2. Take CA-23 N exit toward Moorpark/Simi.
3. Continue onto CA-118 E.
4. Take the First Street Exit in Simi Valley, turn left (north).
5. Continue on First Street beyond the Simi Town Center and to the site entrance.

Contact Information

The City of Simi Valley is the Lead Agency for permitting and compliance under the California Environmental Quality Act. Contact information for the City and the biological consultant are provided below.

Lead Agency	Biological Consultant
City of Simi Valley Cynthia Sabatini 2929 Tapo Canyon Road Simi Valley, CA 93063 Office: (805) 583-6776	Envicom Corporation Tyler Barns 1465 E. Thousand Oaks Boulevard, Suite 290 Westlake Village, CA 91362 Office: (818) 879-4700

Source: GoogleEarth Pro, Dec. 10, 2013.

Aerial of the Project Site

0 250 500 Feet

FIGURE 3

2.0 METHODS

An onsite investigation to delineate the amount and type of jurisdictional waters and riparian habitat was conducted on May 6 and 7, 2015 in accordance with the 1987 ACOE *Wetlands Delineation Manual* (ACOE 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (ACOE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (ACOE 2008b), and *A Field Guide to Mapping Episodic Stream Activity* [where applicable] (Brady and Vyverberg 2013). Vascular plant species determinations were made using *The Jepson Manual: Vascular Plants of California, 2nd edition*. Natural community classifications were correlated with the *List of Vegetation Alliances and Associations (Natural Communities List*) (CDFW, September 2010). Vertebrate wildlife species observed at and in the vicinity of the site were identified by direct observation, sign (e.g., tracks, scat, or burrows), or vocalization. Wildlife species identification relied upon Reid (2006), Sibley (2009), and Stebbins (2003). Several photographs were taken as a record of site conditions at the time of the survey.

2.1 Federal Jurisdiction

The ACOE, under Section 404 of the Clean Water Act (CWA), regulates the filling of WOUS, including associated wetlands (ACOE 1987). The ACOE defines wetlands as:

> "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas" (40 CFR 230.3(t))".

Wetlands are considered a subset of WOUS. This broad term incorporates aquatic systems that fall under the regulatory jurisdiction of the CWA (Section 404) and the Rivers and Harbors Act (Section 10), including deep-water aquatic habitats and special aquatic sites such as wetlands and mudflats (ACOE 1987). Waters of the US include the territorial sea, coastal and inland waters, lakes, rivers, and streams.

2.2 State Jurisdiction

The California State Water Resources Control Board (SWRCB) and the RWQCB maintain regulatory responsibility for management of wetlands and waterbodies in California and may review wetland delineations in concert with the ACOE. With specific regard to wetlands, the delineation of boundaries of WOS is usually based on the ACOE's multi-parameter approach, as outlined in the 1987 Wetlands Delineation Manual and 2008 Regional Supplement. "Waters of the State" are defined in Section 13050 of the California Water Code as "any surface water or groundwater, including saline waters, within the boundaries of the state." Surface waters are non-tidal wetlands, rivers, streams, and lakes, estuarine wetlands, estuarine waters, and coastal waters, and include waters in both natural and artificial channels.

Pursuant to California Fish and Game Code Section 1600, CDFW has authority over all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, and requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that would "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" that supports fish or wildlife resources.

A stream is defined as a "body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14 §1.72). A Lake or Streambed Alteration Agreement may be required for any proposed project that would result in an adverse impact to a river, stream, or lake. CDFW jurisdiction typically extends to the top of the bank and out to the outer edge of adjacent riparian vegetation, if present. However, CDFW can take jurisdiction over a body of flowing water and the landform that conveys it, including water sources and adjoining landscape elements that are byproducts of and affected by interactions with flowing water without regard to size, duration, or the timing of flow (Brady and Vyverberg 2013).

2.3 Pre-Field Evaluation

Prior to engaging in field work, Envicom staff reviewed background reference materials to familiarize personnel with the survey area and determine potential wetland, waterbody, and drainage areas to be further evaluated. These materials included historic and current aerial photographs (Google Earth 2014, Microsoft 2015), the NRCS web soil survey (USDA 2015), the National Hydrography Dataset (NHD), the National Wetland Inventory (NWI) (USFWS 2015), and previous technical reports prepared for the site (Psomas 2006a, b). NWI and NHD datasets provide representation of wetlands and other surface water features that may be present in an area (**Figure 4, National Hydrography Dataset and National Wetlands Inventory Data**). Soils in the area are illustrated in **Figure 5, NRCS Soils**. Database records are compiled from historic and contemporary data collection efforts, and thus they are a good starting point for indications of surface hydrology and soils; however, the data must be field verified as on-the-ground conditions are usually undergoing continuous anthropogenic modifications and aquatic features can be lost or highly altered.

2.4 Field Evaluation

After preliminary identification of potential wetland areas based on the pre-field evaluation with the aid of color aerial photographs and engineering-grade topographic maps, an Envicom wetland biologist examined the project site. Jurisdictional non-wetland WOUS (ACOE and RWQCB) include areas within onsite drainages below the plane of the ordinary high water mark, while CDFW jurisdictional areas extend from bank to bank, and include the landward edge of riparian vegetation, where present.

Test plots were recorded to determine the ACOE, RWQCB, and CDFW jurisdictional areas within the survey area. The plot locations were mapped with GPS coordinates, and the Wetland Determination Data Form was used to record observations of vegetation, soils and hydrology. The completed forms are included in **Appendix 1**. Representative photographs to depict site conditions, and those at each soil test pit and plot location are presented in **Appendix 2**. The test plot locations were mapped in the field using a Trimble GPS with sub-meter accuracy.

2.5 Global Positioning System Mapping

For this survey, Envicom used a Trimble GEOXH 6000 Series (sub-meter accuracy) Global Positioning System (GPS) unit with Terrasync and GPS Correct to map aquatic community boundaries. Information was exported to a database format using ArcGIS software and edited before linking with a geographic information system. All of the survey data was recorded in the NAD 1983 geographic coordinate system and then projected into the NAD-83 State Plane Zone 5 coordinate system for post-processing (e.g., GIS acreage calculations).

Aerial Source: ESRI Background Imagery, 2015. Data Source: NWI; U. S. Fish and Wildlife Service. Publication date (September 2014). National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
NHD: U.S. Geological Survey, National Geospatial Program (June 2015). USGS National Hydrography Dataset (NHD) acquired via The National Map Viewer.

NORTH CANYON RANCH - JURISDICTIONAL DELINEATION

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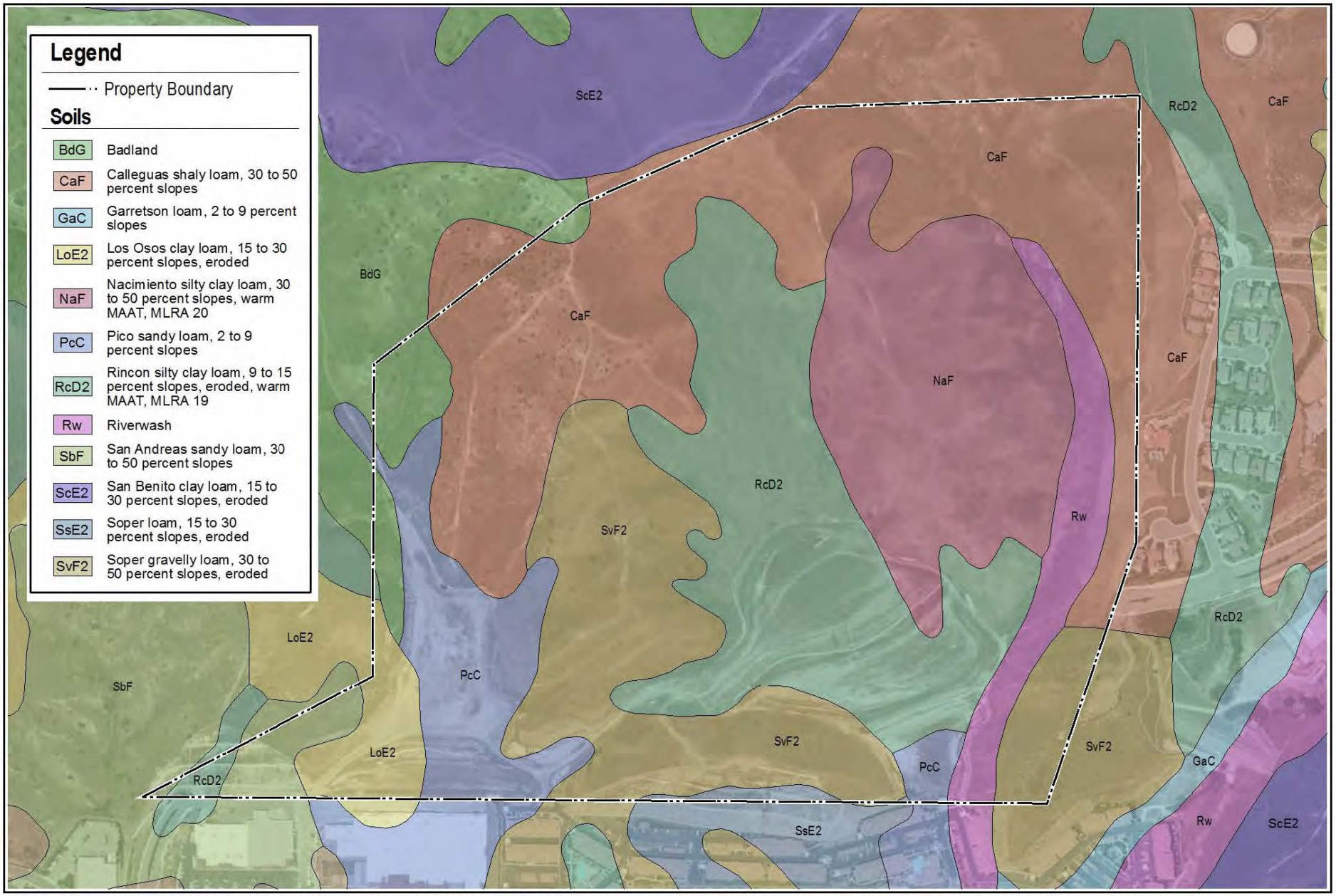
National Hydrography Dataset and National Wetlands Inventory Data

0 575 1,150 Feet

FIGURE 4



Aerial Source: ESRI Background Imagery, 2015. Data Source: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database. Accessed [June 2015].

NRCS Soils

0 250 500 Feet

FIGURE 5

3.0 DELINEATION RESULTS

3.1 Local Watershed

The survey area is located in the Lower Simi Arroyo watershed (HUC 180701030102) within the larger Calleguas watershed (HUC 18070103) and includes two major unnamed drainages that are tributary to Arroyo Simi, which is located approximately 1.15 miles southwest of the site. The two main drainages traverse the property from north to south into two separate debris basins and exit the site via culverts.

3.2 Local Soil Types

The survey area is characterized by ten soil types that primarily consist of loams and sandy/silt loams (Figure 5). None of the soil types are classified as a hydric or partially hydric soil on the National Hydric Soils List (NRCS 2015). Brief descriptions of each soil type are given below:

- BADLAND (BdG) - Badland soils are a minor miscellaneous area.
- CALLEGUAS SHALY LOAM, 30 TO 50 PERCENT SLOPES (CaF) - The Calleguas component is on hills, mountains, and uplands. The parent material consists of residuum weathered from sedimentary rock. Depth to a root restrictive layer, bedrock, paralithic, is 8 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This soil does not meet hydric criteria.
- LOS OSOS CLAY LOAM, 15 TO 30 PERCENT SLOPES, ERODED (LoE2) - The Los Osos component is on hills, mountains, and uplands. The parent material consists of residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria.
- NACIMIENTO SILTY CLAY LOAM, 30 TO 50 PERCENT SLOPES, WARM MAAT, MLRA 20 (NaF) - The Nacimiento component is on hillslopes on hills and mountain slopes on mountains. The parent material consists of residuum weathered from shale. Depth to a root restrictive layer, bedrock, paralithic, is 24 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. This soil does not meet hydric criteria.
- PICO SANDY LOAM, 2 TO 9 PERCENT SLOPES (PcC) - The Pico component is on alluvial fans, alluvial plains. The parent material consists of alluvium derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria.
- RINCON SILTY CLAY LOAM, 9 TO 15 PERCENT SLOPES, ERODED, WARM MAAT, MLRA 19 (RcD2) - The Rincon component is on terraces on valleys, alluvial fans on valleys.

The parent material consists of alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is high. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This soil does not meet hydric criteria.

- RIVERWASH (Rw) - Riverwash soils are a minor miscellaneous area.
- SAN ANDREAS SANDY LOAM, 30 TO 50 PERCENT SLOPES (SbF) - The San Andreas component is on mountains, hills, uplands. The parent material consists of residuum weathered from sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria.
- SOPER LOAM, 15 TO 30 PERCENT SLOPES, ERODED (SsE2) - The Soper component is on hills and uplands. The parent material consists of residuum weathered from conglomerate and/or residuum weathered from sandstone. Depth to a root restrictive layer, bedrock, paralithic, is 24 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria.
- SOPER GRAVELLY LOAM, 30 TO 50 PERCENT SLOPES, ERODED (SvF2) - The Soper component is on hills and uplands. The parent material consists of residuum weathered from conglomerate and/or residuum weathered from sandstone. Depth to a root restrictive layer, bedrock, paralithic, is 24 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is neither flooded nor ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria.

3.3 Vegetation Communities

A majority of the southern portion of the survey area was graded during construction of the Simi Town Center and the Highlands at Big Sky developments. These disturbed lands are often classified as containing *ruderal vegetation,* or a vegetation type composed of predominantly fast-growing, non-native vegetation. At the time of the surveys, vegetation cover on disturbed land and portions of the foothills was the ubiquitous annual grasses of European origin, including wild oats, bromes, and barley (*Avena*, *Bromus*, and *Hordeum* spp.). The vegetative cover in these areas is virtually complete. In some areas, grasses are not dominant. Rather, there is a mixture of bush mallow (*Malacothamnus fasciculatus*) and various alien thistle-like plants, especially Russian thistle (*Salsola tragus*) or tocalote (*Centauria melitensis*). Vegetation within the northern portion of the site is composed of coastal sage scrub and disturbed areas similar to those found in the southern portion of the site.

Table 1, Dominant Plant Species Including Wetland Indicator Status at All Plot Locations, lists the plant species that were determined to be dominant at the test plots, and gives their Wetland Indicator Status (Lichvar 2014).

Table 1
Dominant Plant Species Including Wetland Indicator Status at All Plot Locations

Scientific Name	Common Name	Indicator Status*
Artemisia californica	coastal sagebrush	UPL
Avena barbata	slender wild oats	UPL
Baccharis salicifolia	mule fat	FAC
Brassica nigra	mustard	none
Bromus diandrus	ripgut brome	none
Bromus madritensis rubens	red brome	UPL
Centaurea melitensis	tocalote	UPL
Phacelia cicutaria	caterpillar phacelia	none
Hazardia squarosa	sawtooth goldenbush	none
Leymus condensatus	giant wild rye	FACU
Malacothamnus fasiculatus	bush mallow	none
Rumex crispus	curly dock	FAC
Salsola tragus	Russian thistle	FACU
Salvia mellifera	black sage	none

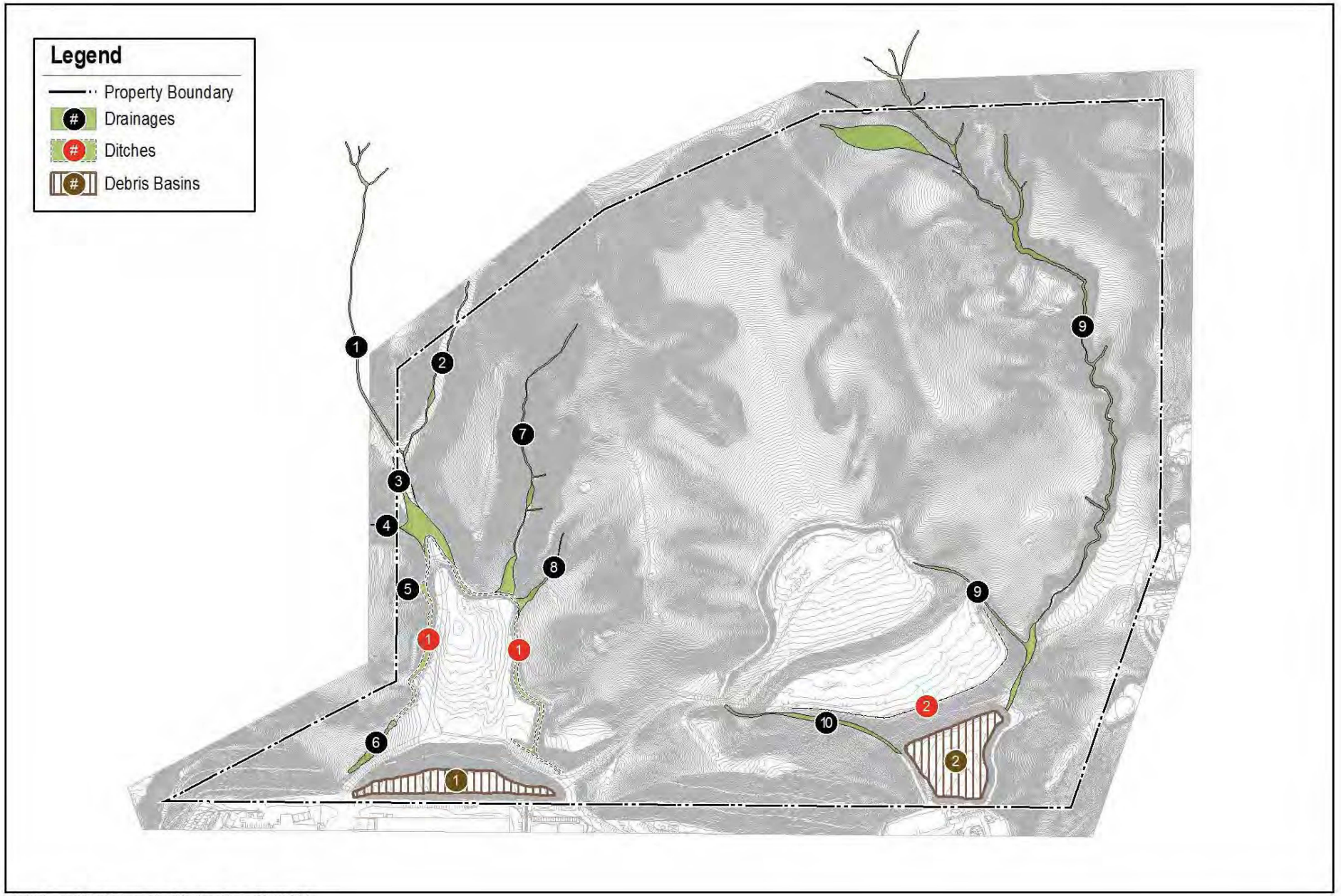
Codes:
OBL = Obligate Wetland – Occur almost always (estimated probability>99%) under natural conditions in wetlands.
FACW = Facultative Wetland – Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
FAC = Faculative – Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACU = Faculative Upland – Usually occur in non-wetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).
UPL = Obligate Upland – Occur in wetlands in another region, but occur almost always (estimated probability>99%) under natural conditions in non-wetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National List.
* None = Plant species not listed are considered UPL for wetland delineation purposes (Lichvar 2014).

3.4 Wildlife

Wildlife species observed during the survey of the site by Envicom in 2015 were species common or relatively common to the region. In general, species observed constitute a sample of the non-special-status wildlife species that can be expected to utilize habitats at the site for cover, foraging, and reproduction. Several species (e.g., reptiles, birds, small mammals) undoubtedly reproduce at the site, and a wide range of larger or mobile species can be expected to utilize the site's resources routinely, such as foraging raptors, and medium to large-sized mammals, such as for example striped skunk, coyote, and mule deer. Bird species observed consisted primarily of year-round and summer residents, and potential migrants. Several bird species likely nest at the site in any given year.

3.5 Jurisdictional Waters/Habitat

Potential federal and state jurisdictional features within the survey area include man-made debris basins and channelized canals and ditches as well as natural ephemeral and intermittent streams. Two debris basins, two earthen ditches, and ten drainages were identified in the survey area (**Table 2, Summary of Potential Jurisdictional Features in Survey Area** and **Figures 6-10**). The major drainages are hydrologically connected to the debris basins, even if only through overland sheet flow, which ultimately

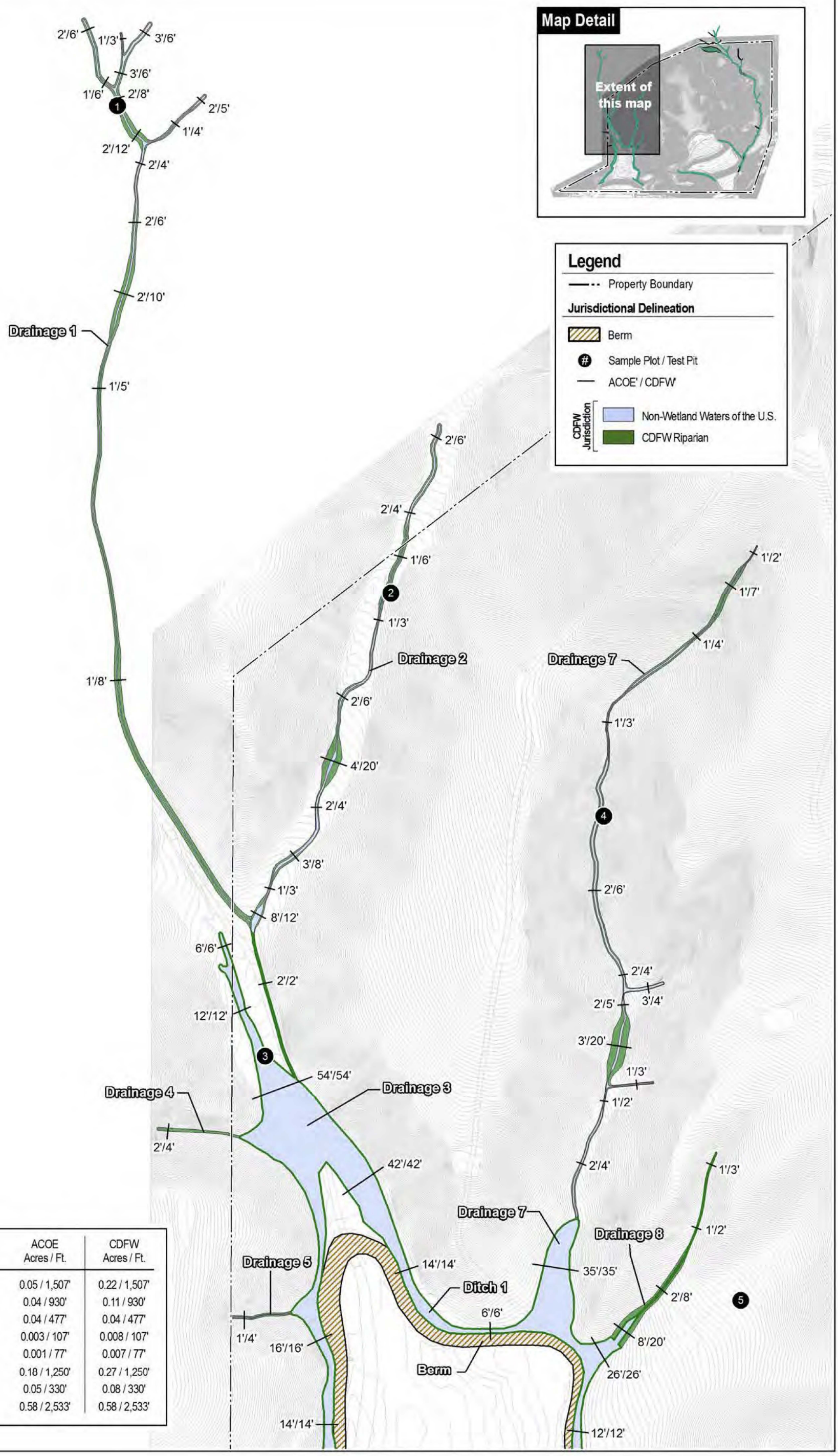


Aerial Source: ESRI Backgrounds, 2015. Topo Source: TGA, 2015.

Wetland & Waterbody Index

0 250 500 Feet

FIGURE 6



Drainages	ACOE Acres / Ft.	CDFW Acres / Ft.
Drainage 1	0.05 / 1,507'	0.22 / 1,507'
Drainage 2	0.04 / 930'	0.11 / 930'
Drainage 3	0.04 / 477'	0.04 / 477'
Drainage 4	0.003 / 107'	0.008 / 107'
Drainage 5	0.001 / 77'	0.007 / 77'
Drainage 7	0.18 / 1,250'	0.27 / 1,250'
Drainage 8	0.05 / 330'	0.08 / 330'
Ditch 1	0.58 / 2,533'	0.58 / 2,533'

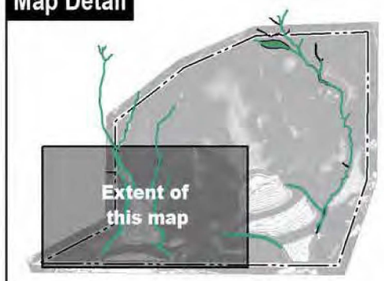
Topo Source: TGA, 2015.

Jurisdictional Delineation Map (Northwest Extent)

0 125 Feet

FIGURE 7

Map Detail



Legend

- Property Boundary

Jurisdictional Delineation

- Berm
- Sample Plot / Test Pit
- ACOE' / CDFW'

CDFW Jurisdiction
- Non-Wetland Waters of the U.S.
- CDFW Riparian

Drainages	ACOE Acres / Ft.	CDFW Acres / Ft.
Drainage 3	0.04 / 477'	0.04 / 477'
Drainage 4	0.003 / 107'	0.008 / 107'
Drainage 5	0.001 / 77'	0.007 / 77'
Drainage 6	0.11 / 263'	0.11 / 263'
Drainage 7	0.18 / 1,250'	0.27 / 1,250'
Drainage 8	0.05 / 330'	0.08 / 330'
Drainage 10	0.19 / 710'	0.19 / 710'
Ditch 1	0.58 / 2,533'	0.58 / 2,533'
Debris Basin #1	1.07 / NA	1.07 / NA

Topo Source: TGA, 2015.

NORTH CANYON RANCH - JURISDICTIONAL DELINEATION

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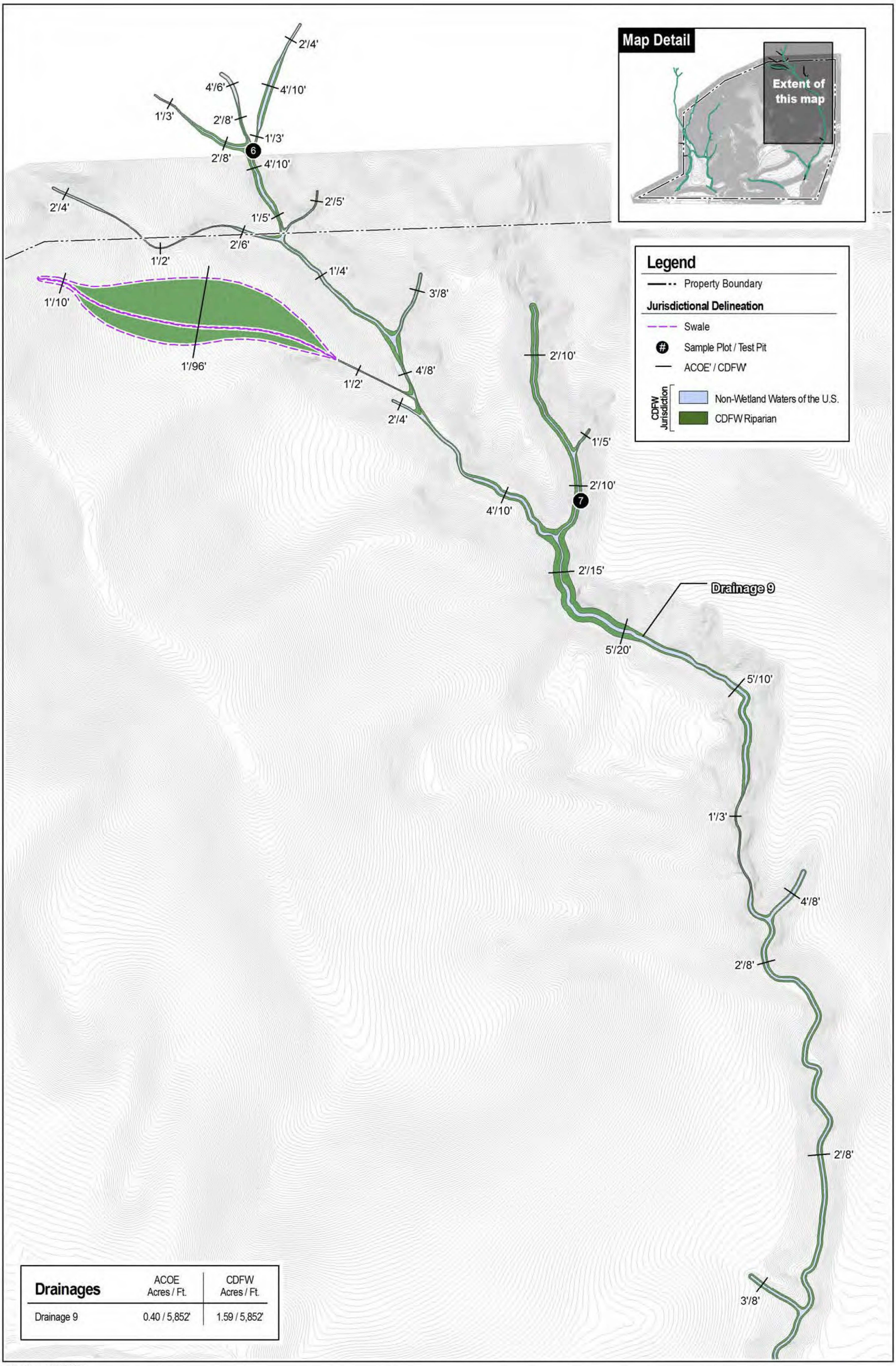
Jurisdictional Delineation Map (Southwest Extent)

0 150 Feet

FIGURE 8



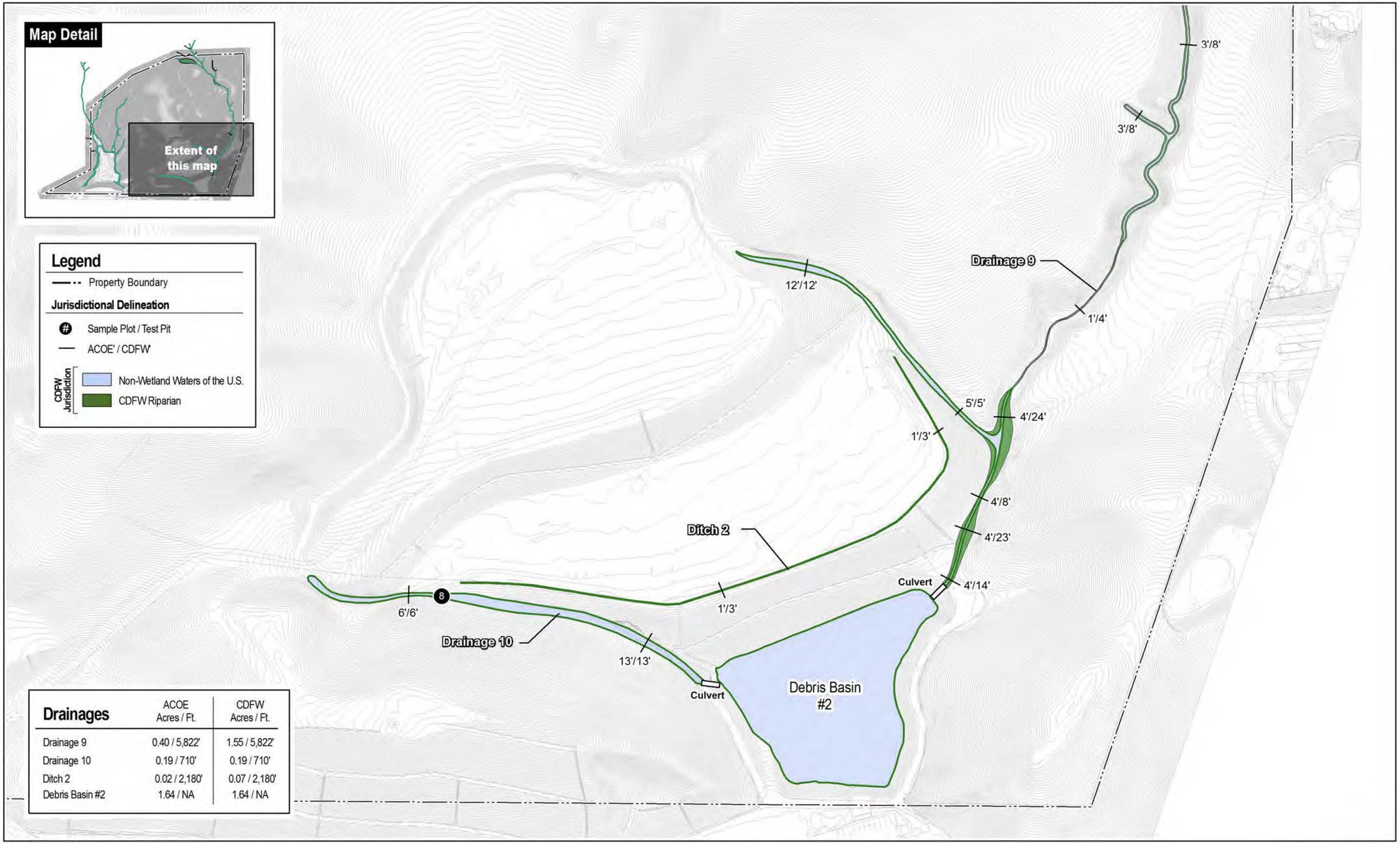
Drainages	ACOE Acres / Ft.	CDFW Acres / Ft.
Drainage 9	0.40 / 5,852'	1.59 / 5,852'

Topo Source: TGA, 2015.

Jurisdictional Delineation Map (Northeast Extent)

0 125 Feet

FIGURE 9



Drainages	ACOE Acres / Ft.	CDFW Acres / Ft.
Drainage 9	0.40 / 5,822'	1.55 / 5,822'
Drainage 10	0.19 / 710'	0.19 / 710'
Ditch 2	0.02 / 2,180'	0.07 / 2,180'
Debris Basin #2	1.64 / NA	1.64 / NA

Topo Source: TGA, 2015.

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Jurisdictional Delineation Map (Southeast Extent)

0 150 Feet

FIGURE 10

connect to Arroyo Simi. Therefore, these drainages would be subject to both federal and state jurisdiction. Thus, all features observed were recorded per both ACOE and CDFW guidance. Within the survey area, data for eight soil test points were collected using ACOE methodology described above to delineate wetlands. One test plot, Test Plot 5, was not located within a defined drainage but rather located in a swale area east of Drainage 8. This plot was excavated based on the presence of a facultative plant species (i.e., estimated to occur in wetlands approximately 66-34 percent of the time) to confirm the absence of additional wetland indicators.

Table 2
Summary of Potential Jurisdictional Features in Survey Area

Feature	Location (GPS Coordinates)*		Size**	
	Latitude	Longitude	USACE/RWCQB (Acres/Linear Feet)	CFDW (Acres/Linear Feet)
Debris Basins				
DB1	34.286490	-118.775237	1.07/NA	1.07/NA
DB2	34.286753	-118.768877	1.64/NA	1.64/NA
		Subtotal	2.71/NA	2.71/NA
Ditches				
DIT1	34.289409	-118.775806	0.58/2,533	0.58/2,533
DIT2	34.288704	-118.769367	0.02/2,180	0.07/2,180
		Subtotal	0.6/4,713	0.65/4,713
Drainages				
DR1	34.293111	-118.776623	0.05/1,507	0.22/1,507
DR2	34.291668	-118.775067	0.04/930	0.11/930
DR3	34.289828	-118.776001	0.04/477	0.04/477
DR4	34.289127	-118.775986	0.003/107	0.008/107
DR5	34.288484	-118.775663	0.001/77	0.007/77
DR6	34.287087	-118.775973	0.11/263	0.11/263
DR7	34.291241	-118.773698	0.18/1,250	0.27/1,250
DR8	34.288948	-118.77389	0.05/330	0.08/330
DR9	34.294261	-118.769521	0.40/5,852	1.59/5,852
DR10	34.287278	-118.771825	0.19/710	0.19/710
		Subtotal	1.07/11,503	2.63/10,997
		Total	**4.37 acres/16,216 linear feet**	**5.99 acres/16,216 linear feet**

* North American Datum 1983, California State Plane Zone V. GPS coordinates are given for the upstream origin of the drainage or ditch and center point of debris basins as accessed during field surveys and/or as digitized from aerial imagery.
** Values are approximate due to rounding.

3.4.1 Debris Basins

Two debris basins, totaling 2.71 acres were found within the survey area (refer to Table 2). These debris basins were created as part of the Simi Town Center and Highlands at Big Sky developments (Google Earth 2014). The debris basins are located in the southern portion of the survey area, north of Jefferson

Way (Simi Town Center). The boundaries of the features were mapped based on site-specific topography and the sharply delineated bed/bank construction typical of man-made impoundments. The hydrology for these features comes predominantly from precipitation. Because these basins receive, retain, and eventually convey flow from the multiple drainage features, they are considered potential WOUS and WOS. Potential functions of these two basins include flood-flow alteration and sediment/toxicant retention. Both of the debris basins support some riparian vegetation (e.g., mulefat) but no wetlands were identified.

3.4.2 Ditches and Drainages

As described in Table 2, ten drainages were identified within the survey area. For the most part, these are well-incised channels that convey water from the upland ephemeral and intermittent drainages to the debris basins. However, where ephemeral Drainages 3, 7, and 8 meet the lower extent of their reaches, they widen and are characterized by overland sheet flow. The continued trampling by cattle has exacerbated the spreading at these locations and to some extent within the channelized portion of the drainages. With the exception of the main eastern drainage, Drainage 9, the drainages convey water to one large ditch that wraps around the toe of the manufactured slopes associated with the berm area. Berm construction has concentrated the overland sheet flow and has thus established secondary, well-incised drainages that feed into the debris basins.

All of the drainages have discernible bed, banks and OHWM indicators (Appendix 1). Upland environs were determined based on the limits of upland indicators including mammal burrows, biotic soil crust, drainage swales, woody debris, and the development of soil. Most of these features support woody vegetation, primarily bush mallow and occasionally mulefat, and are otherwise characterized by ruderal herbaceous species within the bed and along banks. However, because the drainages are deeply incised within the upper reaches of the drainages, the immediate banks are nearly vertical and in some locals completely devoid of vegetation. Dominant vegetation above the incised channels consisted mainly of coastal sage scrub species. In many instances, however, the drainages were degraded due to grazing activity (i.e., trampling) and vegetation coverage was reduced to ruderal species and stands of disturbed bush mallow. These systems are classified as riverine vegetated streambeds per Cowardin et al. (1979).

There are two ditches in the survey area, both of which are resultant from grading activities. Ditch 1 is located on the western portion of the site and conveys waters from upland Drainages 1-5 to Drainage 6 and ultimately via the culvert in the southwest to Debris Basin 1. Ditch 2 is located in the eastern portion of the site and wraps around a manufactured upland plateau area. The ditch is drained to the north by a smaller southeast trending tributary of Drainage 9 and eventually to Debris Basin 2. Drainage 10 conveys collected waters from the southern portion, which ultimately drains into Debris Basin 2.

4.0 CONCLUSION

As described above, Envicom conducted a jurisdictional delineation within the approximately 157-acre survey area. A total of two ditches, ten drainages, and two debris basins were identified within the survey area and delineated in accordance with the ACOE Wetlands Delineation Manual and the Regional Supplement.

Based on the delineation, a total of approximately 4.37 acres and 16,216 linear feet would be considered potential jurisdictional WOUS by the ACOE and WOS by the RWQCB and 5.99 acres would be potential CDFW jurisdiction. Activities that affect the delineated features within the survey area would potentially be subject to requirements under Section 404 and 401 of the Clean Water Act and California Fish and Game Code section 1600 *et seq*.

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Appendix 1

Wetland Determination Data Forms

TP 1

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/6/15

Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP1

Investigator(s): T. Burns Section, Township, Range: T3 R19W

Landform (hillslope, terrace, etc.): hillslope/low flow channel Local relief (concave, convex, none): concave Slope (%): 30

Subregion (LRR): LRR C Lat: 34.298805 71720 Long: -118.776475 67100 Datum: NAD83

Soil Map Unit Name: Badland NWI classification:

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

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

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

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

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

Remarks:
TP located in ephemeral drainage; well-incised channel. No wetland vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Salvia mellifera	15	Y	NL/U
2. Artemisia californica	5	Y	NL/U
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 10')			
1. Sonchus tenerrimus	20	Y	FACU
2. Bromus diandrus	20	Y	NL/U
3. Cryptantha intermedia	5	N	NL/U
4. Leymus condensatus	5	N	FACU
5.			
6.			
7.			
8.			
	(10) 45 30 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust: ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 25	x 4 =	100
UPL species 45	x 5 =	225
Column Totals: 70 (A)		325 (B)

Prevalence Index = B/A = 4.64

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: TP1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 15	10YR 4/3	100					SANDY LOAM	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

Very sandy soil. Pit located in low-flow portion of well-incised channel (app 4' deep)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

drift deposits on vegetation.

TP2

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/16/15
Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP2
Investigator(s): T. BARNS Section, Township, Range: T3N R19W
Landform (hillslope, terrace, etc.): hillslope / low flow channel Local relief (concave, convex, none): none Slope (%): 5
Subregion (LRR): LRRC Lat: 34.2910704550 Long: -118.77527913600 Datum: NAD83
Soil Map Unit Name: Badland NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
TP located in well-incised channel where sediment appears to be deposited.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 10')			
1. Malacothamnus fasciculatus	15	Y	NL/U
2.			
3.			
4.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Salvia mellifera	20	Y	NL/U
2. Baccharis salicifolia	10	Y	FAC
3. Artemisia californica	5	N	NL/U
4.			
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 10')			
1. Bromus diandrus	30	Y	NL/U
2. Bromus madritensis	20	Y	UPL
3. Leymus condensatus	15	N	FACU
4. Centaurea melitensis	3	N	NL/U
5. Salsola tragus	5	N	FACU
6.			
7.			
8.			
	73 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: .2 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species 10	x 3 = 30
FACU species 20	x 4 = 80
UPL species 93	x 5 = 465
Column Totals: 123 (A)	575 (B)

Prevalence Index = B/A = 4.7

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

TP 2

SOIL

Sampling Point: TP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	100					Sandy loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

TP3

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/6/15

Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP3

Investigator(s): T. BARNS Section, Township, Range: T3 R19W

Landform (hillslope, terrace, etc.): low flow channel Local relief (concave, convex, none): _____ Slope (%): 3-5%

Subregion (LRR): LRRC Lat: 34.284900876640 Long: -118.77580736400 Datum: NAD83

Soil Map Unit Name: Badland NWI classification: _____

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

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

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

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Hydric Soil Present? Yes _____ No ✓

Wetland Hydrology Present? Yes ✓ No _____

Is the Sampled Area within a Wetland? Yes _____ No ✓

Remarks:

Low flow channel at terminus of well-incised ephemeral drainage. Vegetation trampled by cows.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 10')			
1. N/A			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Artemisia californica	20	Y	NL/u
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: _____)			
1. Brassica nigra	5	Y	NL/u
2. Bromus madritensis	5	Y	UPL
3. Centaurea melitensis	5	Y	NL/u
4. Bromus diandrus	15	Y	NL/u
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 98 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

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

Prevalence Index worksheet:

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

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: TP3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
1-15	10YR 6/3	100					SANDY LOAM	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

TP4

WETLAND DETERMINATION DATA FORM -- Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/6/15
Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP 4
Investigator(s): T. BARNS Section, Township, Range: T3 R19W
Landform (hillslope, terrace, etc.): low flow channel Local relief (concave, convex, none): Concave Slope (%): 10
Subregion (LRR): LRR C Lat: 34.290278 Long: -118.774354 Datum: NAD83
Soil Map Unit Name: Calleguas shelly loam, 30 to 50 percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks: Test plot located in flatter area within incised channel where sediments appear to be deposited during ephemeral flow.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1. N/a			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Malacothamnus fasciculatus	10	Y	NL/U
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Salvia mellifera	10	Y	NL/U
2. Salsola tragus	10	Y	FAC U
3. Cryptantha intermedia	5	N	NL/U
4. Bromus madritensis	5	N	UPL
5. Brassica nigra	2	N	NL/U
6.			
7.			
8.			
	32 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x 1 =	____
FACW species ____	x 2 =	____
FAC species ____	x 3 =	____
FACU species 10	x 4 =	40
UPL species 32	x 5 =	160
Column Totals: 42 (A)		200 (B)

Prevalence Index = B/A = 4.76

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

TP 4

SOIL

Sampling Point: TP 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10 YR 4/3	70					SANDY LOAM	SANDY MIXTURE - NOT
~~10-15~~	10 YR 3/3	30						STRATIFIED

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

SANDY MIXED LOAM - MIXED DUE TO WEATHERING PARENT MATERIALS BEING WASHED DOWN AND SETTLING. CHROMA does not meet requirements for stratified layers where layers are stacked

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

TP5

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/7/15

Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP5

Investigator(s): T. BARNS Section, Township, Range: T3 R19W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5

Subregion (LRR): LRR C Lat: 34.2085486 Long: -118.7737478 Datum: NAD 83

Soil Map Unit Name: Pico sandy loam, 2 to 9 percent slopes NWI classification:

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

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

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

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

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

Remarks:
Small area on hillslope with Rumex. Vegetation trampled by cows.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: —)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____	= Total Cover	

~~Sapling/Shrub Stratum~~ (18) (Plot size: —)			
1. Salsola tragus	40	Y	FACU
2. Rumex crispus	15	Y	FAC
3. Astragalus trichopodus	2	N	NL/U
4. Avena barbata	5	N	NL/U
5. ~~Bromus~~ Hirschfeldia incana	5	N	NL/U
	67	= Total Cover	

Herb Stratum (Plot size: 10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____	= Total Cover	

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____	= Total Cover	

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust: ____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: .50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species ____	x 1 =	____
FACW species ____	x 2 =	____
FAC species 15	x 3 =	45
FACU species 40	x 4 =	160
UPL species 12	x 5 =	60
Column Totals: 67 (A)		265 (B)

Prevalence Index = B/A = 3.96

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:
Rumex likely from temporary subsurface runoff

TP5

SOIL

Sampling Point: TP5

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-15	10 YR 3/3	100					Loam	granular

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

Very dry soil.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks:

TP6

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/7/15

Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP6

Investigator(s): T. BARNES Section, Township, Range: T3 R19W

Landform (hillslope, terrace, etc.): hillslope low flow channel Local relief (concave, convex, none): _____ Slope (%): 15

Subregion (LRR): LRRC Lat: 34.293828859400 Long: -118.768871391900 Datum: NAD83

Soil Map Unit Name: Calleguas shaly loam, 30 to 50 percent slopes NWI classification: _____

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

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

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

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

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

Remarks:
Test pit located in low flow channel of ephemeral drainage; located in area where sediment appears to collect.

VEGETATION – Use scientific names of plants.

	Absolute % Cover:	Dominant Species?	Indicator Status
Tree Stratum (Plot size: —)			
1. —			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Salvia mellifera	15	Y	NL/u
2. Artemisia californica	15	Y	NL/u
3.			
4.			
5.			
	30	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Bromus madritensis rubens	25	Y	UPL
2. Brassica nigra	15	Y	NL/u
3. Bromus diandrus	10	N	NL/u
4. Lepidium cordatum	20	Y	FACU
5. Cryptantha intermedia	15	Y	NL/u
6. Centaurea melitensis	5	N	NL/u
7.			
8.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 20	x 4 =	80
UPL species 100	x 5 =	500
Column Totals: 120 (A)		580 (B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

TP6

SOIL

Sampling Point: TP6

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10 YR 4/3	100					Sandy Loam	
6-10	10 YR 3/2	100					Sandy Loam	100%
10-15	10 YR 4/3	100					Sandy Loam	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

TP 7

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/7/15

Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP 7

Investigator(s): T. BARNS Section, Township, Range: T3 R19W

Landform (hillslope, terrace, etc.): low flow channel Local relief (concave, convex, none): none Slope (%): 3-5

Subregion (LRR): LRR C Lat: 34.27248223030 Long: -118.76812811980 Datum: NAD83

Soil Map Unit Name: Calleguas shaly loam, 30 to 50 percent slopes NWI classification:

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

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

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

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Hydric Soil Present? Yes ____ No ✓

Wetland Hydrology Present? Yes ✓ No ____

Is the Sampled Area within a Wetland? Yes ____ No ✓

Remarks:
Plot located in low flow channel at point where sedimentation and debris have dropped out.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1. N/A			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Salvia mellifera	15	Y	NL/U
2. Artemisia californica	15	Y	NL/U
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Bromus diandrus	35	Y	NL/U
2. Cryptantha intermedia	35	Y	NL/U
3. Leymus condensatus	10	N	FACU
4. Centaurea melitensis	10	N	NL/U
5. Rorippa nigra	405 TR	N	NL/U
6. Salsola tragus	5	N	FACU
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 16 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 15	x 4 =	60
UPL species 115	x 5 =	575
Column Totals: 130 (A)		635 (B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

SOIL

Sampling Point: TP 7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 4/3	100					SANDY	
4-5	10 YR 2/1	100					SANDY LOAM ASH/Y	
5-15	10 YR 3/3	100					SANDY LOAM	

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

DARK LAYER APPEARS TO BE FROM FIRE/ASH AND NOT CONSIDERED STRATIFIED

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

TP8

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: North Canyon Ranch City/County: Simi Valley Sampling Date: 5/7/15
Applicant/Owner: City of Simi Valley State: CA Sampling Point: TP8
Investigator(s): T. BARNS Section, Township, Range: T3 R19W
Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): 3-5
Subregion (LRR): LRR C Lat: 34.28720474030 Long: -118.77108279500 Datum: NAD83
Soil Map Unit Name: Soper gravelly loam, 30 to 50 percent slopes, eroded NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

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

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

Remarks:
Wash area within drainage.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 10')			
1. Salvia mellifera	5	Y	NL/U
2. Marrubium vulgare	5	Y	NL/U
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 10')			
1. Bromus diandrus	25	Y	NL/U
2. Avena barbata/fatua (?)	20	Y	NL/U
3. Centaurea melitensis	15	Y	NL/U
4. Brassica nigra, Hirschfeldia incana	10	N	NL/U
5. Salsola tragus	5	N	FACU
6. Cryptantha intermedia	5	N	NL/U
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)	16/40		
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 98 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 5	x 4 =	20
UPL species 85	x 5 =	425
Column Totals: 90 (A)		445 (B)

Prevalence Index = B/A = 4.9

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No ✓

Remarks:

TP8

SOIL

Sampling Point: TP8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 4/3	100					SANDY	
8 - Stone	Material							

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

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

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

Indicators for Problematic Hydric Soils[3]:

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

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

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (2 or more required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? Yes ✓ No _____

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

Remarks:

Appendix 2

Representative Site Condition Photographs

Photo 1A – View to the south illustrating hydrology indicators of ephemeral Drainage 2 north of Ditch 1.

Photo 1B – View to the northwest of Drainage 3 illustrating the incised channel and dominance of non-hydric vegetation.

Photo 1C – View to the northeast from the berm above Ditch 1 looking at the overland sheet flow area associated with Drainages 2 and 3 and Ditch 1.

Photo 1D – View to the east of overland sheet flow area at southern terminus of Drainage 7. Stream hydrology degraded by cattle grazing.

Representative Photos of the Site

Photo 2A – View to the south from the headwaters of Drainage 9.

Photo 2B – Mammal dens were frequently encountered along the drainages. This den was located in Drainage 9 and used to define the limits of ordinary high water.

Photo 2C – View to the northeast illustrating the incised channel of Drainage 9 overtopped by sagebrush scrub.

Photo 2D – View to the east of the limit of riparian vegetation and the transition to upland vegetation within Drainage 9.

Representative Photos of the Site

Photo 3A – View to the northeast of Debris Basin 1.

Photo 3B – View to the south of Debris Basin 2.

Photo 3C – Photo of test plot located in alluvial area of Drainage 10.

Photo 3D – Photo of the test plot located in low flow channel of Drainage 7. The plot lacked hydric vegetation and wetland soils.

Photo 4A – Photo of test plot located in alluvial area of Drainage 9 where hydrology was present but other indicators were lacking.

Photo 4B – View to the northwest of surface cracks within Drainage 9 in an area previously delineated as flowing water.

Photo 4C – View to the northwest of Test Plot 5, where hydric vegetation was identified. No other wetland indicated were located in this area.

Photo 4D – View to the east of vegetation within Ditch 2.

Representative Photos of the Site

CalPacific Arborist Report
Feb 7, 2024

APPENDIX D

Tree Survey and Arborist Report Update

with Fuel Modification Zones

for North Canyon Ranch (TTM 5658-A) in Ventura County, California

Prepared for:

ELMT Consulting

Contact: Travis J. McGill, Director/Biologist

2201 N. Grand Avenue #10098 | Santa Ana, CA 92711

Prepared by:

CalPacific Sciences

George J Wirtes, MS, RCA #738

ISA Certified and ASCA Registered Consulting Arborist

Updated Draft Report Date: February 7, 2024

Table of Contents

SECTION 1: EXECUTIVE SUMMARY

This arborist survey update has been performed at the request of ELMT for a proposed residential project in unincorporated Ventura County within the sphere of influence of the City of Simi Valley. The field survey associated with this report was originally performed on June 4, 2022. In December of 2022, a Fuel Modification Zone Map was created for the site (see Section 4 below), requiring additional analysis addressing the specific location of each tree within the project boundary. The data presented within this report are based on the original tree survey for the site.

The subject trees were tagged with an aluminum tag containing a unique number. As part of this survey, details of each tree were recorded, documenting their species, stature, health, local environment as well as conditions in which they occur. In all, 16 trees were assessed onsite involving five distinct species. Of these trees, three species are native (Englemann oak, Pacific willow, and Mexican elderberry), and two species (black locust and Peruvian pepper) are considered invasive by Cal-IPC. The Peruvian pepper is prohibited within unincorporated Ventura County due to its flammable properties.

All trees originally assessed in 2022 were in fair to good health with good vigor and limited signs of decay or disease. All trees assessed were potentially candidates for preservation at the time. They appear to conflict with the current grading plan required by the proposed site plan. Using 2022 survey results, five trees are protected under to the City's Ordinance (see Section 2.6.3 above) and require a permit by the planning director prior to removal. Upon review of the proposed Fuel Modification Plan (FMP) by LandArc, Inc. (LandArc, 2023), five trees are located in Zone 1 (see Table 3 below) and require removal and mitigation. Of the remaining trees, four are located in Zone 2 and five trees are in Zone 3; these may require thinning or removal to be in compliance with Ventura County Fire Department Guidelines.

The Municipal Code and Mature Tree Ordinance for the City of Simi Valley outlines provisions and guidelines for tree removal, replacement, installation, preservation, and maintenance within the City. Replacement species and size must be in accordance with City regulation and chosen from local, quality nursery stock. Recommendations based on the City's Code are provided in Section 5.3 below, however, final mitigation is at the discretion of the City's planning director. All trees that are intended for removal as part of a project require a removal permit and must be approved by the Planning Department.

SECTION 2: BACKGROUND

2.1 - Project Location and Description

The project area is an approximate 160-acre, undeveloped site within the Brea Canyon Area of unincorporated Ventura County, California. The site is located 0.25-mile north of Highway 118 and 13.5-miles west of Interstate 5 in the County of Ventura (see Figure 1 below).

The proposed project includes a large residential development with significant grading in preparation of housing pads, streets, infrastructure, and landscaping. The grading limits presumably will impact most of the southern portion of the project site. According to the grading plan associated with the current site plan, it appears all trees will be impacted.

2.2 - Site and Vicinity Characteristics

The elevation of the project area ranges from approximately 1,300 feet above mean sea level (amsl) in the northern portion of the site, and slopes steeply (in places) to approximately 1,050 feet amsl. The terrain is varied with canyons, large drainages and steep hillsides. For the vicinity, the Sunset Zone is 18, and the USDA Hardiness Zone is 9b.

In general, the site's parent material includes sandstone, shale, and conglomerate Oligocene non-marine rocks. As indicated in Table 1 below, *ten* distinct soil series occur within the site boundary. These soil series are described by the Natural Resource Conservation Service (NRCS) as alluvium, derived from granite (see Table 1 below).

Table 1. Soils on Site

Map Unit Symbol	Map Unit Name	Acres	Percent
BdG Badland	**Setting** • Parent material: Residuum weathered from sedimentary rock **Typical profile** • H1 - 0 to 60 inches: weathered bedrock	3.8	2.4%
CaF Calleguas very channery loam, 30 to 50 percent slopes	**Setting** • Landform: Mountains, hills • Parent material: Residuum weathered from sedimentary rock **Typical profile** • A - 0 to 9 inches: very channery loam • C - 9 to 18 inches: very channery loam • Cr - 18 to 28 inches: bedrock	43.3	27.1%
LoE2 Los Osos clay loam, warm 15 to 30 percent slopes, eroded	**Setting** • Landform: Hillslopes • Parent material: Residuum weathered from sandstone and shale **Typical profile** • A - 0 to 11 inches: clay loam • Bt - 11 to 37 inches: clay • Cr - 37 to 47 inches: bedrock	4.2	2.6%
NaF Nacimiento silty clay loam, 30 to 50 percent slopes, warm MAAT, MLRA 20	**Setting** • Landform: Mountain slopes, hillslopes • Parent material: Residuum weathered from shale **Typical profile** • A - 0 to 13 inches: silty clay loam • Bk - 13 to 30 inches: silty clay loam • Cr - 30 to 40 inches: bedrock	25.6	16.0%
PcC Pico sandy loam, 2 to 9 percent slopes	**Setting** • Landform: Alluvial fans • Parent material: Alluvium derived from sedimentary rock	12.5	7.8%

Map Unit Symbol	Map Unit Name	Acres	Percent
	Typical profile • H1 - 0 to 14 inches: sandy loam • H2 - 14 to 54 inches: stratified sandy loam to loam • H3 - 54 to 60 inches: stratified gravelly sand to gravelly loamy coarse sand		
RcD2 Rincon silty clay loam, 9 to 15 percent slopes, eroded, warm MAAT, MLRA 19	**Setting** • Landform: Alluvial fans, terraces • Parent material: Alluvium derived from sandstone and shale **Typical profile** • A - 0 to 12 inches: silty clay loam • Bt - 12 to 34 inches: clay • Ck - 34 to 80 inches: clay loam	32.5	20.3%
Rw Riverwash	**Setting** • Landform: Drainageways • Parent material: Alluvium **Typical profile** • H1 - 0 to 6 inches: sand • H2 - 6 to 60 inches: stratified coarse sand to sandy loam	7.6	4.8%
SbF San Andreas sandy loam, 30 to 50 percent slopes	**Setting** • Landform: Hills, mountains • Parent material: Residuum weathered from sandstone **Typical profile** • H1 - 0 to 20 inches: sandy loam • H2 - 20 to 37 inches: sandy loam • H3 - 37 to 60 inches: loamy coarse sand	2.4	1.5%
SsE2 Soper loam, 15 to 30 percent slopes, eroded	**Setting** • Landform: Hills • Parent material: Residuum weathered from conglomerate and/or residuum weathered from sandstone **Typical profile** • H1 - 0 to 11 inches: loam • H2 - 11 to 40 inches: gravelly clay loam • H3 - 40 to 59 inches: weathered bedrock	0.8	0.5%
SvF2 Soper gravelly loam, 30 to 50 percent slopes, eroded, MLRA 20	**Setting** • Landform: Hills • Parent material: Residuum weathered from conglomerate and/or residuum weathered from sandstone **Typical profile** • A - 0 to 11 inches: gravelly loam • Bt - 11 to 57 inches: very gravelly clay loam • Cr - 57 to 79 inches: bedrock	27.3	17.0%
Totals for Area of Interest*		**160.1**	**100.0%**

The site is undeveloped and contains native and non-native flora throughout the site. Most of the project area is used for cattle grazing, and animal paths can be seen in areas that are accessible and not limited by the barbed-wire fencing.

2.3 - Assignment and Scope of Survey

The task, originally assigned to Golden State Land & Tree Assessment (GSL&T), was to conduct a tree survey and health assessment of all trees within the project area as defined in Section 2.1 above. Tree inclusion was based on a tree's potential to have its root crown and/or canopy present within the project boundary and have a stem diameter at breast height of $\geq$ four (4) inches, as this is an industry standard. The survey was performed to identify the different tree species found within the project boundary, assess their health, and provide insight as to which trees may be retained as part of the planned improvement. A health assessment was performed cataloging the health and stature parameters of each tree onsite. This included, but was not limited to; recording total diameter at breast height (DBH), canopy spread, tree height, apparent disease/decay, other signs of potential hazard, and pest damage. A potential risk assessment was also conducted keeping public safety in mind. All documentation in this report is in compliance with standards and requirements published by the International Society of Arboriculture (ISA). This report includes recommendations and mitigation measures meant to satisfy all applicable ordinances and permit guidelines. CalPacific Sciences was charge with performing additional analysis in light of the Fuel Modification Map for the site performed by LandArq, Inc. in December 2022.

2.4 - Survey Method and Health Assessment

Prior to the field survey, the City of Simi Valley's website was accessed to review specific tree protection guidelines. An aerial photograph was used as a visual guide during the assessment. A Garmin 64s handheld Global Positioning System (GPS) device and GPS-enabled smartphone with digitized project boundaries (.kmz file) were used to identify the location of each subject tree. The crown-width was estimated by pacing, and the height of each subject tree was visually estimated using a tangent height gauge. These data were recorded on field sheets, and associated aluminum numeric tags were affixed to trees on the north side at BH for later reference. Aerial views were captured using a DJI Mavic Air 2 controlled by a DJI Fly smartphone app.

Tree status (relative condition, stature, and health) was conducted by ISA arborist/biologist, George Wirtes from ground level with the aid of binoculars. Canopy spread was assessed by pacing. To estimate wood integrity, a rubber mallet was occasionally used to assess possible decay within the tree stem and flare. As indicated earlier, no invasive procedures were performed. Visual characteristics were recorded on field sheets, and twig/leaf samples as well as digital photographs were taken as needed to assure accurate identification. Overall health and general appearance of each tree was numerically rated (Health/General Appearance Rating - 1-Good, 2-Fair, 3-Poor, 4-Decline/dead) based on the aforementioned conditions. The local environment was also assessed in relation to the tree species and conditions of its location (Local Environment Rating - 1-Good, 2-Fair, 3-Poor, 4-Inappropriate). For this rating, the species was considered

in relation to the environment. Other conditions were also considered such as fence lines, utilities, competing canopies, grade cuts/slope, etc.

The position of the subject trees was recorded using a GPS whose data was exported into GIS for periodic illustration over aerial photographs. In a couple cases, trees were not accessible due to their location on a steep grade, or behind heavy brush. In these cases, no metal tag was affixed and the tree was given an identity number starting with UT (untagged).

2.5 - Hazard Risk Assessment

The International Society of Arboriculture (ISA) recommends a Hazard Assessment to be included with arborist reports. Such an assessment is an important component of any report and is critical if trees are to be located near public areas such as parks, walkways, residences, and buildings. This tree assessment includes a *Level 2 Basic Risk Assessment* as defined by ISA Best Management Practices. This type of assessment is limited to evaluating trees and obvious signs of defects such as:

- Dead or broken structures
- Cracks
- Weakly attached branches and co-dominant stems
- Missing or decayed wood
- Unusual tree architecture or distribution
- Obvious loss of root support

A risk rating is assigned to each tree based on its defects, aesthetics, apparent health, location and the nearby targets (people or property). As defined by ISA the ratings are defined below:

1. *Low* - Low-risk category applies when consequences are negligible, and likelihood is unlikely, or consequences are minor, and likelihood is somewhat likely.

2. *Moderate* - Moderate risk situations are those for which consequences are minor and likelihood is very likely or likely or likelihood is somewhat likely, and the consequences are significant or severe.

3. *High* - High-risk situations are those for which consequences are significant and likelihood is very likely or likely or Consequences are severe, and likelihood is likely.

4. *Extreme* - The extreme risk category applies in situations in which failure is imminent and there is a high likelihood of impacting the target and the consequence of the failure is severe. The tree risk assessor should recommend that mitigation measures be taken as soon as possible.

It is impossible to maintain a tree free of risk. A tree is considered hazardous when it has a structural defect that predisposes it to failure, and it is located near a target.

- A target is person or property that may sustain potential injury or property damage if a tree or a portion of a tree fails.

- Target areas include sidewalks, walkways, roads, vehicles, structures, playgrounds, or any other area where people are likely to gather.

- Structurally sound and healthy trees may also be hazardous if they interfere with utilities, roadways, walkways, and sidewalks, or if they obstruct motorist vision.

- Common hazards include dead and diseased trees, dead branches including bark, stubs from topping cuts, broken branches (hangers), multiple leaders, tight-angled crotches, and an unbalanced crown. Evaluation of risk is as follows: 1-Good, 2-Fair, 3-Poses risk, and 4-Hazardous.

2.6 - Local Tree Regulation (Simi Valley Municipal Code (SVMC)

As stated in the SVMC, no "protected tree" shall be removed, cut down, relocated, or otherwise destroyed, except as provided for in Sections 9-38.070 - 9-38.070.090. The City's Municipal Code (Code) addresses the maintenance and protection of trees in developed and undeveloped areas within the City. Significant portions within the Municipal Code are provided below.

2.6.1 - Protected Tree (SVMC 9-80.020)

For undeveloped projects, the following terms and phrases are defined within the Code:

- Historic Tree - A living tree designated by resolution of the Council as an historic tree because of an association with some event or person of historical significance to the community, or because of special recognition due to aesthetic qualities, condition, or size.
- Mature Native Oak Tree - A living native oak tree with a cross-sectional area of all major stems, as measured four and one-half feet above the root crown, of 20 or more square inches.
- Mature Tree - A living tree with a cross-sectional area of all major stems, as measured four and one-half feet above the root crown, of 72 or more square inches. Mature trees shall not include stump regrowths.
- Native Oak Tree - A living tree of the genus Quercus and species agrifolia, berberidifolia, lobata, or hybrids thereof.
- Protected Trees - All historic trees, all mature native oak trees, or any mature trees which are associated with a proposal for urban development, or are located on a vacant parcel.

2.6.2 - Tree Removal Permits (SVMC 9-38.070)

No protected tree shall be removed, relocated, cut down, or otherwise destroyed, unless a Tree Removal Permit has been first issued by the Director. The determination by the Director to issue a Tree Removal Permit, shall be based upon the following criteria:

- The condition of the tree with respect to disease, danger of collapse of all or any portion of the tree, proximity to an existing structure, or interference with utility services, or, in the case of a mature native oak tree, interference with an addition to an existing single-family detached dwelling;
- The necessity to remove a protected tree in order to construct improvements which allow economic enjoyment of the property;
- The number of protected trees existing in the neighborhood;
- Good forestry practices (e.g., the number of healthy mature trees that a given parcel of land would support);
- Whether or not removal of the tree is necessary to construct required improvements within the public street right-of-way or within a flood control or utility right-of-way;
- The suitability of the tree species for use in an urban area; and
- The tree has outgrown the space in which it was planted and is damaging surrounding pavement or structures.

2.6.3 - Simi Valley Mature Tree Ordinance

The City's mature tree ordinance recognizes trees as a uniquely valuable resource due to their many benefits. This ordinance affords more stringent protection defining mature trees as those with a DBH of > 9.5" (and native oak trees with a DBH >5") as protected.

2.7 - Limitations and Exceptions of Assessment

This survey was conducted in a manner that draws upon past education, acquired knowledge, training, experience, and research. It was conducted to the greatest extent feasible, and although the information gathered reduces risk of tree failure/decline, it does not fully remove it.

During the survey performed on June 4, 2022, not all trees were accessible for close examination; this was due to factors that include obstruction (equestrian fencing, heavy brush/understory) and steep inclines that compromised safety. Despite these obstacles, every attempt was made to view the specimen trees to the greatest extent feasible in order to determine each tree's health and viability to remain as part of the project. Ultimately, portions of these trees were not observable thereby limiting the visual detection of defects. In addition, as noted in Section 2.4 above, a Garmin 64s handheld Global Positioning System (GPS) device was used to mark the location of trees within the site. *Although this device is accurate and dependable, it is published to have up to a 3m error in its waypoint accuracy.*

No diagnostic testing was performed during this assessment. This survey associated with this Arborist Report included no soil sampling, root excavation, trunk coring/drilling or any other invasive procedure. The determinations of damage due to pest infestation and decay were made solely on outward appearance and inspection of the tree structures. Not all tree defects may be visible from the ground. Epiphytic growth can also obscure defects on the stem and in the canopy of a tree.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi and other forces of nature. Many aspects of tree health and environmental conditions are often not detectable (internal decay, poor root anchoring, etc.). Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time.

The statements made in this report do not take into account the effects of climate/wind extremes, vandalism, or accident (whether physical, chemical, or fire). In addition, this area is known to have periodic, high velocity Santa Ana winds from transient high-pressure ridges. CalPacific Sciences cannot, therefore, accept any liability in connection with these factors, or where prescribed work is not carried out in a correct and professional manner in accordance with current ISA good practice. The authority of this report ceases at any stated time limit within it, after one year from the date of the survey (if none stated), when any site conditions change, or after pruning (or other activity) not specified in this report.

The goal of this survey is to recommend measures to limit risk exposure while enhancing the beauty and health of each tree onsite. Clients may choose to accept or disregard the recommendations contained within

this report, or seek additional advice. ***To live near trees is to accept some degree of risk. The only way to eliminate all risk is to remove all trees onsite***.

The recent updates to this report are specific to fuel modification as it applies to the trees within the project site in the condition and abundance in which they were when originally assessed on June 4, 2022. With the onset of the El Nino weather pattern along with other environmental conditions, these conditions over the course of a year may have changed significantly. The tree count and species in this update only apply as presented in the report by Golden State Land and Tree Assessment in the report dated, June 16, 2022.

SECTION 3: SUBJECT TREES AND OBSERVATIONS

During the site survey, specific measurements and parameters of all trees onsite were recorded on tree assessment worksheets; these data have been transferred into the table in Appendix A at the end of this document.

3.1 - Species Assessment

During the survey, tree assessments were conducted according to general ISA and City requirements; GPS waypoints were recorded, as were specific details of each tree. The tree species represented onsite are described in detail below, and a comprehensive table is provided in Appendix A of this report. In general, the species onsite were appropriate for the location. However, Peruvian peppers are known to have invasive properties; this feature has resulted in many instances of competing canopies due to volunteer sprouting within the site. A species profile for each tree observed is provided in Table 2 below along its abundance. Note: Three trees were located just outside of the project boundary to the south (not included in Table 2), but are noted within Figure 2 below. These trees include coast live oak (*Quercus agrifolia*, CLO), Englemann oak (*Quercus engelmannii*, EnOa), and Mexican fan palm (*Washingtonia filifera*, MFP).

Table 2. Tree Species Observed

Common Name ***Botanical Name***	**Species Profile**	**Qty.**
Black Locust ** *Robinia pseudoacacia*	This species tolerates smog. Its seeds, leaves and bark are poisonous. Has become established in natural areas (undisturbed, undeveloped environments) in California. Cal-IPC (California Invasive Plant Council) classifies the invasiveness of this plant as limited. Has thorns. This species is native to eastern and central united states. Its form is erect or spreading and requires ample growing space. It has an oval shape with deciduous foliage. Height: 40 - 70 feet. Width: 25 - 35 feet. Growth Rate: 36 Inches per Season. Longevity 50 to 150 years. Wet to dry soil composed of clay, loam or sand texture. Its branch strength is rated as medium weak to medium and its root damage potential is rated as high.	5
This species was primarily observed along the southern boundary of the project area along the fence line. Rhyzomous sprouting has led to an isolated community of young trees adjacent to the catch basin within the site (see Plate 8 below).		
Englemann oak* *Quercus englemannii*	The Engelmann Oak (or Mesa Oak) is a beautiful rare oak native to Southern California. This native tree is sprawling species, often to twice its height. Its growth form is erect or spreading with a high canopy that is typically oval, rounded or umbrella shape. This species generally has deciduous foliage. It is a moderately fast-growing tree. Height: 50 - 65 feet. Width: 80 - 120 feet. Growth Rate: 12 to 24 Inches per Year. Longevity Greater than 150 years. This tree grows in sunset zones 7 - 9 and 14 – 21, and it prefers exposure full sun to partial shade. Moist to dry soil with clay, loam or sand texture. This species can tolerate slightly acidic to slightly alkaline soil pH. It is resistant to verticillium, but susceptible to invasive shot hole borer, coddling moths, insect galls and scales, armillaria, crown rot, mistletoe and root rot. Its branch strength rated as strong, and it has a moderate root damage potential.	1

Mexican Elderberry *Sambucus mexicana*	Large shrub or small tree with usu. multiple trunks and dark green leaves. Blue Elderberry is a beautiful shrub, or tree, that produces edible fruit and is loved by wildlife. The leaves are a lighter shade of medium green, having small serrated edges around the tips. Elderberry can adapt to most any climate and soil conditions, though some irrigation is needed to establish. Elderberry is fast growing. USDA Hardiness Zones 6 - 10 Height 25'-30' Width: 6-24 feet. The berries can be used for jams and jellies, juices and wines, but be sure to make sure you select nice ripe berries. The leaves, stems and bark of Elderberry are poisonous. Elderberry has also been used extensively in medicinal treatments.	4
Peruvian pepper ** *Schinus molle* ***This Species is on the Prohibited Species List (see Appendix C below)***	This species tolerates saline soil and smog. Susceptible to Texas root rot, especially in desert. Cal-IPC (California Invasive Plant Council) classifies the invasiveness of this plant as limited. It is native to Northern South America and has Evergreen foliage. Height: 25 - 50 feet. Width: 25 - 40 feet. Growth Rate: 36 Inches per Season. Longevity 50 to 150 years. This species tolerates full sun and it prefers partial shade and moist to dry soil. It is drought tolerant and can be planted in clay, loam or sand textured soils. Susceptible to aphids, psyllid, scales and thrip, phytophthora, root rot, sooty mold and verticillium. Its branch strength is rated as medium weak and root damage potential is rated as high.	4
Pacific Willow * *Salix lasiandra*	This small multi-stemmed tree or large shrub species is native to California as well as the western and southwestern United States. It is a mesic species and tolerates seasonal flooding. Its SelecTree water use rating is high, and It prefers Sunset Zones 1 - 9, 14 - 17, 22 – 24 as well as USDA Zones 1-9. This plant species tolerates partial shade to full sun exposure. It can thrive in soil comprised of loam, sand or clay with a soil pH of very acidic to neutral. Its growth rate is approximately 36-127 in/year. Its maximum tree height is up to 40 feet, and canopy width or spread is 10-25 feet Its branch strength is rated as weak, and its root damage potential is rated as high. It is susceptible to *Anthracnose*, willow blight, *Armillaria*, *Phytophthora* and aphids, beetle borers, caterpillars, spider mites	2

* California native tree species

** Cal-IPC (California Invasive Plant Council) invasive tree species
Note: Scrub oak was noted onsite during the survey. This species typically is in the form of a bush and does not meet the criteria (morphology and DBH) to be included in a tree survey.

Source: UFEI 2022

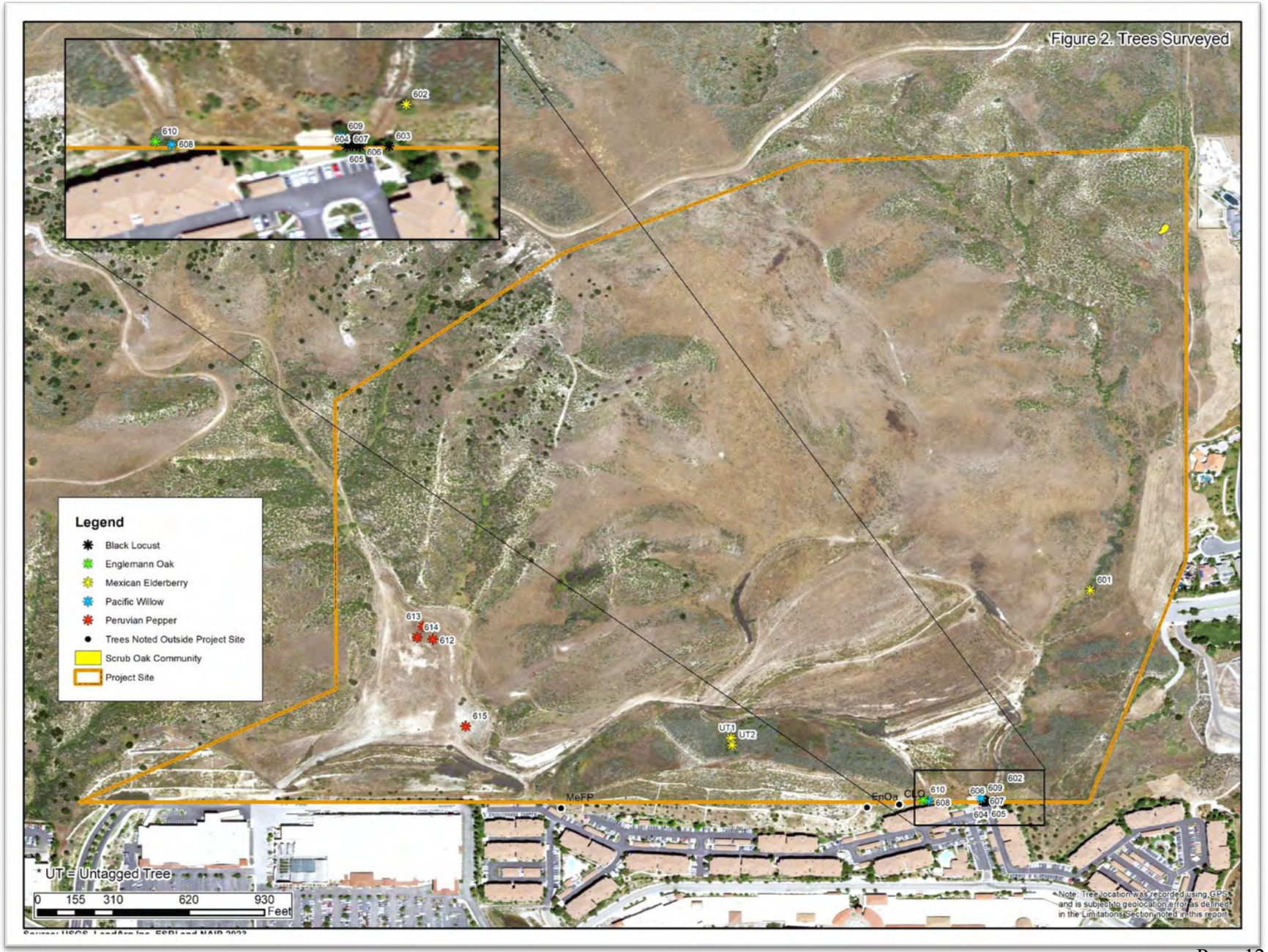


Figure 2. Trees Surveyed
Legend
Black Locust
Englemann Oak
Mexican Elderberry
Pacific Willow
Peruvian Pepper
Trees Noted Outside Project Site
Scrub Oak Community
Project Site
* UT = Untagged Tree
0 155 310 620 930
Feet
MeFP
EnOa
CLo
UT1
UT2
601
602
603
604
605
606
607
608
609
610
612
613
614
615
Note: Tree location was recorded using GPS and is subject to geolocation error as defined in the Limitations Section noted in this report.

3.2 - Observations

In all, 16 trees consisting of five distinct species were assessed (see Figure 2 below). The Peruvian pepper (*Schinus molle)* and black locust (*Robinia pseudoacacia*) were the most represented species comprising 62.5% of the species onsite. Both of these tree species are rated as invasive by Cal-IPC (as noted in Table 2 above). The age of the trees onsite ranged from immature to mature and the health from rigorous to in-decline. In the figure below, three trees are noted (CLO (coast live oak (*Quercus agrifolia*)), EnOa (Englemann oak (*Quercus englemannii*), and MeFP Mexican fan palm (*Washingtonia filifera*)), but were just outside of the site. Note: these trees are subject to fire restriction guidelines as detailed in Section 4.1.1 below.

3.2.1 - Observed Concerns

Plate 1. This a view of a small tree with minor dieback in the lower canopy (#601).

Plate 2. This is a view of a small community of scrub oak within the northeastern portion of the project (not tagged).

Plate 3. This is a view of boreholes within the lower stem of a tree (#602).

Plate 4. This is a view of a multi-stem configuration with included bark (#603).

Plate 5. This is a view of adventitious sprouting from root suckering (#607).

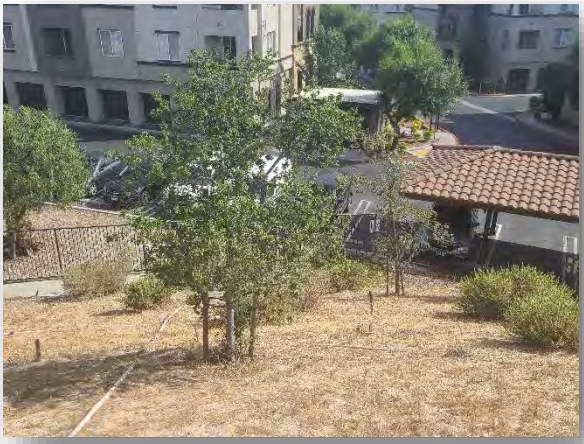


Plate 6. This is a view of a coast live oak outside (CLO) of the project site on a landscaped slope above a neighboring development (labelled CLO on Figure 2).

Plate 7. This is a view of a multi-stem tree with lower epicormic sprouting (#613).

Plate 8. This is a view of a cluster of trees (on the right) from aggressive sprouting.

SECTION 4: FUEL MODIFICATION

4.1 - Local Fire Protection Standards and Guidelines

Ventura County Fire Department (VCFD) is the local authority for setting and enforcing fire-defensible space within the local area. Their Standards and Guidelines are readily available on their website. It is crucial that these be thoroughly reviewed and implemented, given the adjacent wildlands in the vicinity of the project site. A number of these standards and guidelines are presented below, but it is recommended that all applicable standards and guidelines through the County be reviewed.

4.1.1 - Fuel Modification Zone

The Ventura County Fire Protection District (VCFPD) has developed a Fire Hazard Reduction Program that defines key terms and concepts aimed at reducing the threat of fire to people and property within the County; this program and the terms contained within it are based on code and regulations within VCFPD Ordinance 32, California Fire Code (CFC) California Building Code (CBC), California Public Resources Code (PRC), and California Government Code (GC).

Fuel Modification is described in this program as a method of modifying fuel (vegetation) by reducing the amount of non-fire-resistive vegetation or altering the type of vegetation to reduce the fuel load. As stated by the Fire Prevention Bureau, "the intent is to prevent fires from spreading to wildland fuels that may threaten to destroy life, overwhelm fire suppression capabilities, or result in large property loss. Proper installation, spacing, and maintenance of plants and landscape is one of the key elements in the survivability of a structure during a wildfire". Fuel Modification Zones have been developed by VCFD and their definitions and descriptions are provided in Table 3 below.

Table 3. VCFD Fuel Modification Zones

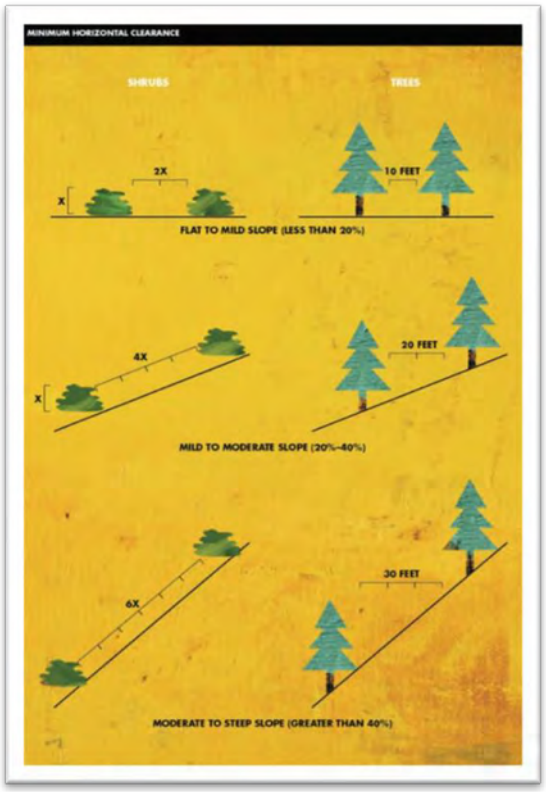
Zone	Description	Applicable Content to Trees
Zone 0 (Ember-resistant Zone) * Extends 5' from building, structure, deck, etc. Zone 0 is measured from the edge of a structure, attached decks, patio covers, balconies, and floor projections above grade	Zone 0 reduces the likelihood of structure ignition by reducing the potential for direct ignition of the structure from flame contact, by embers that accumulate at the base of a wall, and/or indirect ignitions when embers ignite vegetation, vegetative debris or other combustible materials located close to the structure that result in either a radiant heat and/or a direct flame contact exposure to the structure.	NO Trees. Non-woody small herbaceous or succulent plants not exceeding two (2) feet high. Plants shall be spaced a minimum of 2x the height from other plants. Plants shall have a minimum clearance of 2x the plant height below and adjacent to windows or other openings into the structure, including vents. All ground cover and plants shall be set back from structures and decks 1x the height of the plant or 12-inches, whichever is greater.
Zone 1 (Minimal Planting Zone) * Extends 5'- 30' from property line or structure whichever is closer. Zone 1 can extends 50' from slopes exceeding 20% grade	Zone 1 is the intermediate zone that reduces the likelihood of fire burning directly to the structure. This is accomplished by modifying fuels and creating a discontinuity between planting groups that limits the pathways for fire to burn to the structure and reduces the potential for near-to-building ember generation and radiant heat exposures. An additional purpose of this zone is to provide a defendable area for fire personnel to stage and take direct action.	Small Trees Only (mature dripline <10' at maturity). This is a minimal planting zone and very limited trees of a fire-resistive type and additional spacing. New trees shall be planted and maintained so that the tree's drip line at maturity is a minimum of 10-feet (3048 mm) from any combustible structure. See Table 3 within Guideline 515 - Fire Department FMZ Spacing, for plant and tree height, width, and space requirements. Tree canopy at full maturity not allowed within 10-feet of any structure
Zone 2 (Reduced Fuel Zone) * Extends 30'-100' out from building, structure, decks, etc. or property line	Zone 2 is the extended zone and is designed to reduce the potential behavior of an oncoming fire in such a way as to drop an approaching fire from the crown of trees to the ground, reducing the flame heights, and the potential for ember generation and radiant heat exposure to structures. Additional benefits of the Zone 2 include facilitating direct defense actions and improving the function of Zones 0 and 1.	Limited Trees Permitted. See Table 3 within Guideline 515. Spacing of vegetation and trees at the outer edge of Zone 2 shall be based upon the height of the vegetation within Zone 2 or the adjacent area beyond the 100-foot zone, which ever provides for the greater spacing.
Zone 3 (Fuel Thinning Zone) Extends 100 - 200' is considered a thinning zone and is any Fuel Modification Zone greater than 100' from structures	Zone 3 is considered a thinning zone and is any FMZ greater than 100-feet from structures and decks. When provided, either by conditions of development, voluntary by the property owner, or required by the Fire Department, this zone is more of a progressive thinning zone to lessen spread of fire as it approaches the primary FMZ adjacent to structures. The amount of fuel reduction and removal should take into consideration the type and density of fuels, aspect, topography, weather patterns, and fire history.	Trees Permitted. progressive thinning zone to lessen spread of fire as it approaches the primary FMZ adjacent to structures.
***** All fuels and vegetation within the 0–100-foot FMZ are subject to defensible space laws and regulations and shall comply with this standard. This includes ornamental plants, cultivated landscape plants, native plants, trees, shrubs, grasses, weeds, and wildland vegetation. Cutting brush, plants, and trees all the way down to dirt is not required.		

Source: VCFD Guideline 515, 2023

4.1.2 - Additional Requirements all Zones

- Tree litter shall not exceed 2-inches in depth underneath tree canopies and shall be kept back a minimum of 12-inches from any tree trunk.
- Combustible mulch and wood chips shall comply with Fire Department Standard 517 and are not allowed within 5-feet of structures.
- Continuous tree canopies are not allowed. Tree spacing shall be in accordance with Table 3 of Standard 515.

Plate 8. This figure (right) is an illustration taken from Guideline 515 showing the required horizontal distance required between trees, based on slope or grade.



Specific the site, LandArq, Inc. has created a Site Plan Fuel Modification layout showing the proposed development as it related to adjacent Fuel Modification standards mandated by the County. This layout is provided in Appendix B below and has also been spatially adjusted to fit the project site area in Figure 3 below.

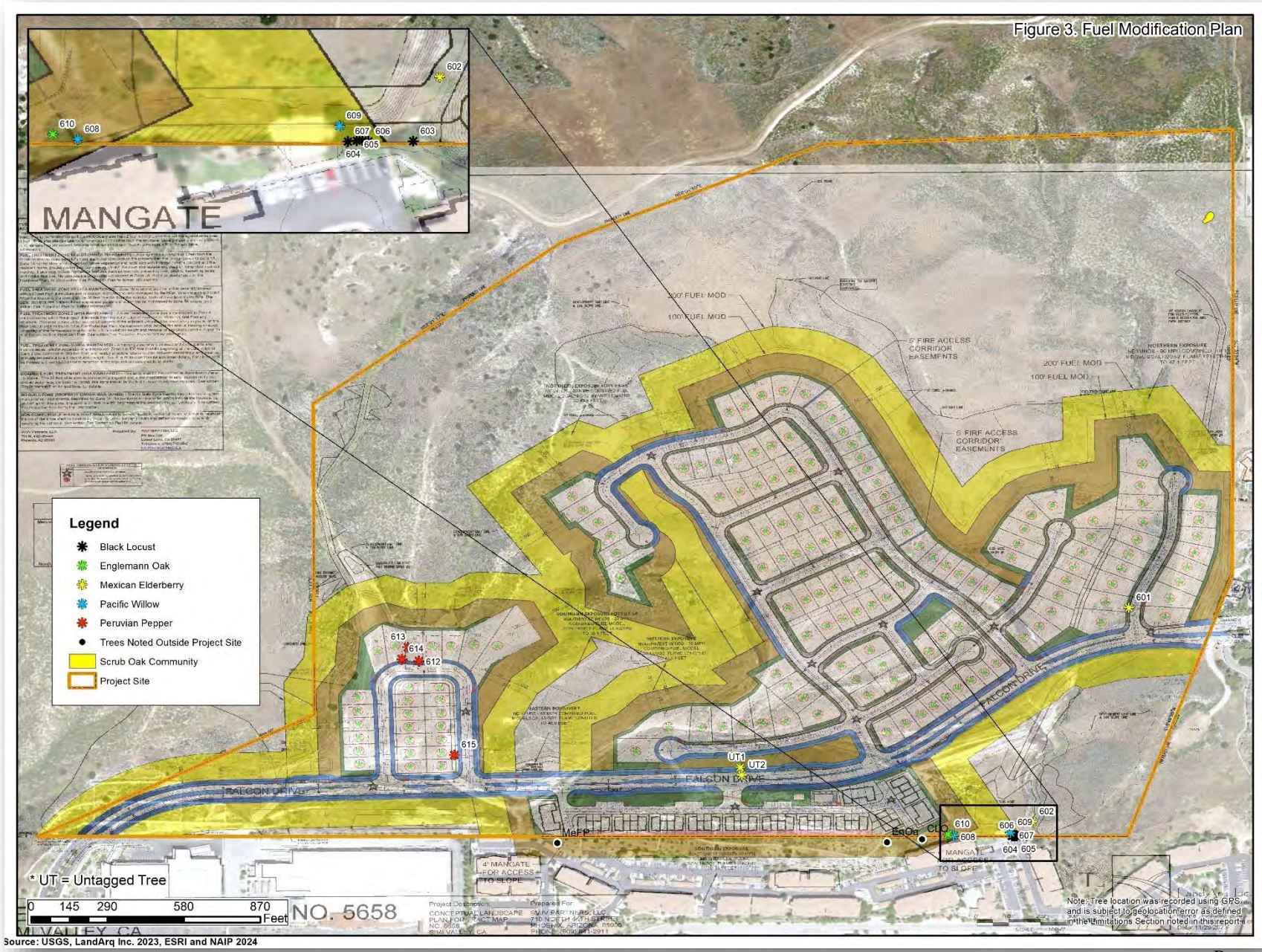


Figure 3. Fuel Modification Plan
MANGATE
602
610
608
609
607
606
603
605
604
200' FUEL MOD
100' FUEL MOD
5' FIRE ACCESS CORRIDOR EASEMENTS
NORTHERN EXPOSURE
601
613
614
612
615
FALCON DRIVE
UT1
UT2
MeFp
EnOa
CtO
4' MANGATE FOR ACCESS TO SLOPE
Legend
Black Locust
Englemann Oak
Mexican Elderberry
Pacific Willow
Peruvian Pepper
Trees Noted Outside Project Site
Scrub Oak Community
Project Site
* UT = Untagged Tree
0 145 290 580 870
Feet
NO. 5658
Project Description:
CONCEPTUAL LANDSCAPE PLAN FOR TRACT MAP NO. 5658
Prepared For:
SMV PARTNERS, LLC
710 NORTH 44TH STREET
PHOENIX, ARIZONA 85008
PHONE: (602) 381-2911
Land Arq, Inc
Note: Tree location was recorded using GPS and is subject to geolocation error as defined in the Limitations Section noted in this report.
Source: USGS, LandArq Inc. 2023, ESRI and NAIP 2024

4.1.3 - Prohibited Plant List

VCFD Guideline 410 of the is intended to provide a list of plants and trees (See Appendix C below) that are not allowed within a new required defensible space (DS) or fuel modification zone (FMZ). They highly recommended that these plants and trees be thinned and or removed from existing DS and FMZs.

SECTION 5: DISCUSSION AND RECOMMENDATIONS

5.1 - Conclusion

As part of this survey, details of each tree were recorded, documenting their species, stature, health, local environment as well as conditions in which they occur. In all, 16 trees were assessed onsite involving five distinct species. Of these trees, three species are native (Englemann oak, Pacific willow, and Mexican elderberry), and two species (black locust and Peruvian pepper) are considered invasive by Cal-IPC. The Peruvian pepper is prohibited within unincorporated Ventura County due to its flammable properties.

All trees originally assessed in 2022 were in fair to good health with good vigor and limited signs of decay or disease. All trees assessed were potentially candidates for preservation at the time. They appear to conflict with the current grading plan required by the proposed site plan. Using 2022 survey results, five trees are protected under to the City's Ordinance (see Section 2.6.3 above) and require a permit by the planning director prior to removal.

Upon review of the proposed Fuel Modification Plan (FMP) by LandArc, Inc. (LandArc, 2023), five trees are located in Zone 1 (see Table 3 below) and require removal and mitigation. Of the remaining trees, four are located in Zone 2 and five trees are in Zone 3; these may require thinning or removal to be in compliance with VCFD Guidelines.

Table 3 – Tree Location and Fuel Modification Zone

VCFD Zone	Description	Trees Affected
Zone 0	Extends 5' from building, structure, deck, etc. Zone 0 is measured from the edge of a structure, attached decks, patio covers, balconies, and floor projections above grade	NA
Zone 1 (FMP Zones 1A/1B) *	Extends 5'- 30' from property line or structure whichever is closer. Zone 1 can extends 50' from slopes exceeding 20% grade	601, 612, 613, 614, 615
Zone 2	Extends 30'-100' out from building, structure, decks, etc. or property line	UT1, UT2 (located in street), 608, 610 (three other offsite trees are noted in this zone).
Zone 3	Extends 100 - 200' is considered a thinning zone and is any Fuel Modification Zone greater than 100' from structures	604, 605, 606, 607, 609

Note: Three trees were noted as located just beyond the project boundary; these and others in the vicinity are subject to fuel modification guidelines as well. In addition, the specific location of the trees can have an error of up to 3m (see Section 2.7 above).

** The Fuel Modification Plan by Land Arc, Inc. modifies Zone 1 into two parts, Zones 1A and 1B.*

5.2 - Discussion

The project site is vast with a varied topography supporting very few trees. Most of the resident specimens are invasive and relatively young. The native species present (with exception of the Englemann oak) typically take on a bush-like stature (but can also appear as a small tree); thus, their inclusion in this survey. Also of note was the presence of the scrub oak (*Quercus berberidifolia*) community present in the northeastern portion of the site; this species is protected, but is presumably beyond the grading limits of the proposed project.

Due to the adaptive characteristics and relative youth of the trees onsite, none lack the vigor or health, or are diseased enough to warrant removal; however, many are invasive and have the ability to out-compete native flora if given the opportunity.

5.3 - Recommendations

5.3.1 - Tree Replacement

All trees surveyed appear to conflict with the grading associated with the current site plan. When considering VCFD Fuel Modification Guidelines using Figure 3 above, five trees (601, 612 – 615) appear to be located in FMZ 1, and removal is recommended. Within Zones 2 and 3, thinning or removal is recommended as needed to bring them in compliance with VCFD Guideline 418 (if any trees will be preserved). In addition, four of these trees (Peruvian pepper) are on the Prohibited Species List (see Appendix C below).

Removal of living, native and non-native trees may result a biological impact. Recommended mitigation for Protected trees, is replanting with trees with a total value equal to the that of protected trees removed; this is determined by the City based on the size, species, and health of the tree. Removal of non-status trees (those not protected or qualifying as having any other designation or status) is replacement at a 2:1 ratio (combination of 24-in. boxed and 15-gal. specimens), chosen from local, quality nursery stock. Removal of any trees must be preceded by authorization and may require a Tree Removal Permit from the City's Planning Department. All recommendations are at the discretion of the City's planning director.

5.3.2 - Trees Preserved

Those trees not specified in Section 5.3.1 above are recommended for preservation. If it is decided to preserve any trees onsite, an ongoing maintenance and monitoring plan is strongly recommended; this is to ensure public safety and minimize liability due to potential tree failure. In addition, applicable Zone 2 guidelines must be adhered to; this may require additional trimming or removal based on the exact location of the tree within the Zone. Strategic pruning compliant with ISA standards must be performed to subordinate non-primary codominant stems, and adjacent stem sprouting as well as canopy deadwood. It is also recommended that companies contracted to perform tree work be vetted and trained to assure work is performed according to ISA standards and in compliance with City/County regulation.

5.3.3 - Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) and CDFG Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from early February through August, but can vary slightly from year to year based upon seasonal weather conditions.

5.3.4 - Tree Protection during Construction

Building/grading near trees requires that they are healthy at the start of the project for the stand to recover well. Some older trees have little tolerance for root damage or other stress factors. Younger, more vital trees are more tolerant of changes in their surroundings. However, each change in soil compaction, irrigation, under plantings, and other condition takes some of an older tree's strength and vigor and further diminishes its health.

1. The main stresses and risks of construction are:
    - Soil compaction
    - Lack of water or changes in the site hydrology
    - Change of grade in the root zone
    - Physical damage to tree roots and structure
    - Dumping of potentially toxic construction wastes
    - Lack of pest control and other care
    - Dust
    - Human error
2. Mature trees take a long time to heal from, or respond to, injury. It could take 10 years for some trees to make a visible improvement in health after construction impacts occur. On the other hand, it could take 10 years for a tree to visibly start declining after cutting roots, compacting the soil, or raising the grade.
3. Dripline fencing must be placed a minimum of 1 foot in radius from the tree per 1 inch of diameter at breast height (for example, 6-inch trunk = 6 feet protection radius/12 feet diameter). In addition, dripline fencing must be erected so that it is visible and structurally sound enough to deter construction equipment, foot traffic, and the storing of equipment under tree canopies.
4. Raising or lowering the grade in the root zone of trees can be fatal or ruin the health of trees for years to come. Grade change and soil compaction force out the oxygen and literally press the life out of the soil. A retaining wall can be used to minimize the amount of the root zone that is affected, but it is essential that the footing is not continuous. Gravel and aeration pipes should be placed inside the retaining wall before the fill is placed. Consult with a qualified civil engineer for proper design calculations.
5. Trenching within the protection zone must be avoided wherever possible. Most of the roots are in the top 1 to 2 feet of soil, and trenching can sever a large percentage of roots.

6. Oil from construction equipment, cement, concrete washout, acid washes, paint, and solvents are toxic to tree roots. Signs should be posted on the fencing around trees notifying contractors of the fines for dumping. Portable latrines that are washed out with strong detergents can damage the fine roots of the trees. Portable latrines should not be placed near trees, nor where frequent and regular foot traffic to them will compact the soil below the trees.
7. Construction creates large amounts of dust, and the oaks and any other trees to be preserved will need to be kept clean. Dust reduces photosynthesis on all trees. Strict dust control measures must be implemented during construction to minimize this impact, and an occasional rinsing with a solution of water and insecticidal soap will help control pests.

SECTION 6: QUALIFICATIONS OF ARBORIST

Mr. Wirtes is a Certified Arborist (CH-08084) with the International Society of Arboriculture (ISA) and is a Registered Consulting Arborist (#738) with the American Society of Consulting Arborists. Originally ISA certified in November of 2005, Mr. Wirtes is also Tree Risk Assessment Qualification (TRAQ) certified, and has conducted numerous tree assessments for residential and commercial properties involving oak and other tree species. Most notably, Mr. Wirtes has assessed properties with as many as 550 trees, and has created an oak regeneration, desert native plant and Joshua tree management plans. He regularly performs tree surveys within Riverside, San Bernardino, Orange as well as Los Angeles Counties. Mr. Wirtes' education includes a Bachelor of Science in Biology and a Master of Science in Environmental Science from California State University at Fullerton.

I certify that the details stated herein this report are true and accurate:

_____

George Wirtes, MS, RCA 738
ISA Certified Arborist, CH-08084

SECTION 7: REFERENCES

Calflora. 2022. Website at http://www.calflora.org.

Cal-IPC 2022. Website at https://www.cal-ipc.org/plants/inventory/

City of Simi Valley, 2022. Municipal Code posted on website:
https://www.simivalley.org/government/city-council/municipal-code

City of Simi Valley, 2022. Mature Tree Preservation Ordinance:
https://www.simivalley.org/departments/environmental-services/planning-division/tree-advisory-board-arbor-day/mature-tree-preservation-ordinance

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University of California, 2022. California Tree Failure Report Program website at
http://ucanr.edu/sites/treefail/

University of Florida Environmental Horticulture Department 2022. Website at http://hort.ifas.ufl.edu/

UFEI, 2022. Urban Forest Ecosystems Institute website at https://selectree.calpoly.edu/

Ventura County Fire Department, 2023. Website at https://vcfd.org/fire-prevention/standards-guidelines/

Virginia Tech, Dendrology Dept. 2022. Website at http://www.cnr.vt.edu/DENDRO/dendrology/main.htm

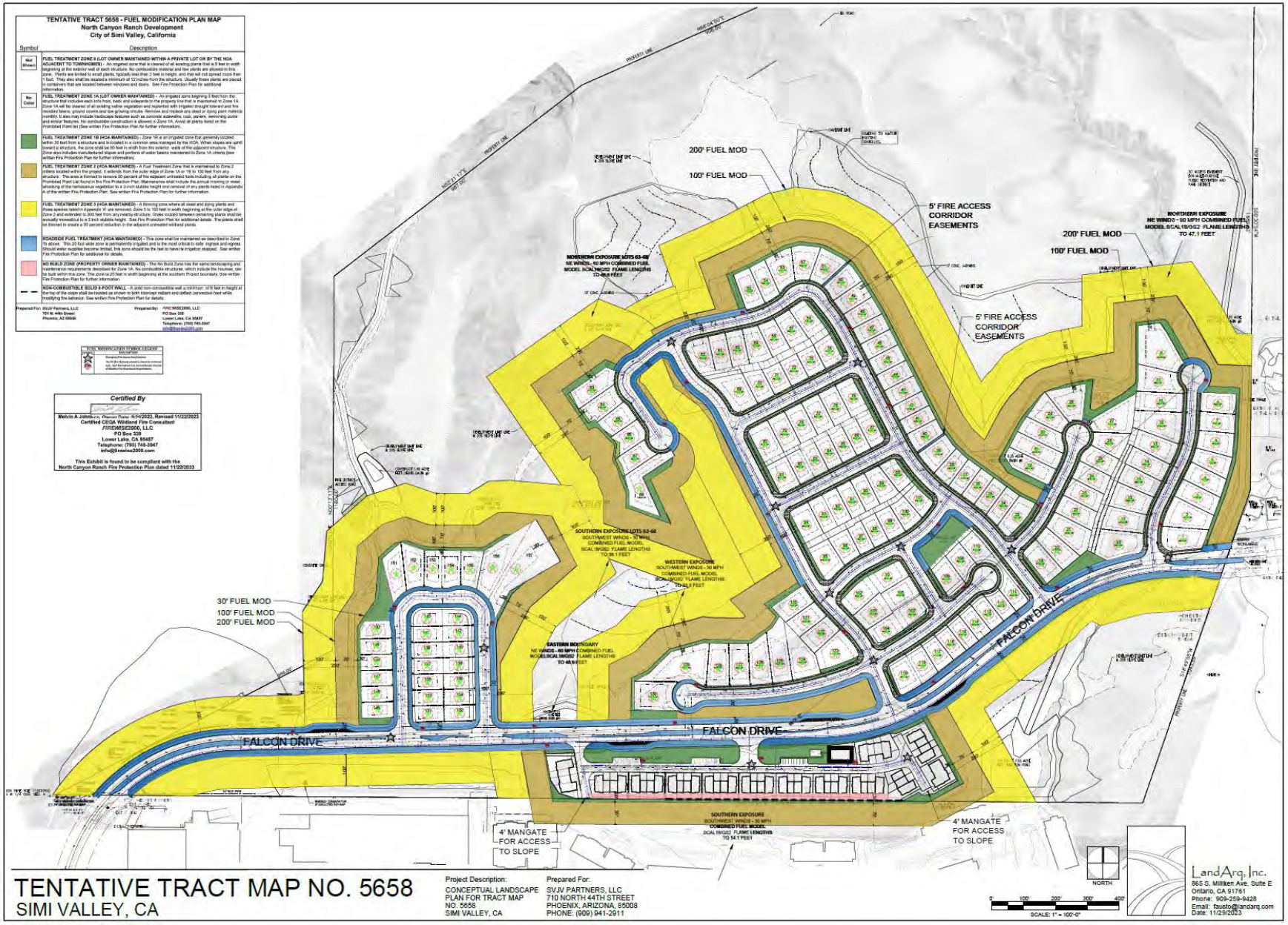
Appendix A - Tree Species Observed

Note - This tree survey and the details recorded below are meant to characterize the trees within the property. The assessment is not exhaustive, but is a balance between the competing forces of in-depth description and cost effectiveness. The goal was to accumulate enough data to make a judgment as to what role, if any, the existing trees may have in the proposed project.

Tree Tag #	Species1	DBH (inches)							Height (feet)	Canopy Width (feet) (North on top)	Canopy Area (sq. ft)	Health Grade	Gen App	Stature	Risk	Recommendation
		1st Trunk	2nd Trunk	3rd Trunk	4th Trunk	5th Trunk	6th Trunk	Total								
601	Mexican Elderberry	6						6	17	5 / 10 / 10 / 10	300	C+	2-3	2	2	Remove due to location in FMZ 1
Multi-stem, Minor canopy dieback, Fair to good vigor																
602	Mexican Elderberry	8	6	3	4	2		23	18	8 / 7 / 13 / 10	360	C-	2-3	2-3	2-3	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Protected tree. Multi-sprouter, Borer holes, Upper canopy dieback, Fair vigor																
609	Pacific Willow	4.5	2.5	3				10	13	8 / 6 / 5 / 6	154	B+	1-2	1-2	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 2
Protected tree. Leaves are elliptical, On slope in water basin																
603	Black Locust	3	2.5	3				8.5	28	7 / 6 / 5 / 6	143	B-	1-2	2-3	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Multi-stem, good form and vigor																
604	Black Locust	5						5	33	10 / 8 / 4 / 6	192	B-	1-2	2-3	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Multi-stem, good health and vigor																
605	Black Locust	3.5	3					8.5	32	6 / 5 / 7 / 7	156	B-	1-2	2-3	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Multi-stem																
606	Black Locust	4	3					7	32	11 / 6 / 6 / 9	240	B-	1-2	2-3	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Multi-stem																
607	Black Locust	3.5	3.5					7	17	5 / 10 / 10 / 10	300	B-	1-2	2-3	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Multi-stem, good form and Vigor, Codominant stem, Subordinate codominant stem																
608	Pacific Willow	4.5	3	3	4			14.5	18	9 / 6 / 6 / 10	228	B-	1-2	1-2	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 3
Protected tree. Multi-stem, Some minor decay in stems																
610	Englemann Oak	4.5						4.5	11	4 / 8 / 6 / 12	224	B	1-2	2	1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 2
Good vigor, Sweep lean																

UT1	Mexican Elderberry	7						7	15	5 8 6 8	182	B	1-2 1-2 1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 2
Feet to South, Vigor and health fair to good														
612	Peruvian Pepper	4						4	11	6 5 5 6	120	B	1 2-3 1-2	Remove due to location in FMZ 1 and prohibited species
Prune, Subordinate codominant stem														
613	Peruvian Pepper	4	6	5	4			19	15	7 8 8 10	272	B	1-2 2-3 1-2	Remove due to location in FMZ 1 and prohibited species
Protected tree. Codominant stem, Subordinate codominant stem														
UT2	Mexican Elderberry	10						10	15	6 9 7 6	192	B	1-2 1-2 1-2	Conflicts with site plan. If preserved, trim or remove to comply with VCFD guidelines for FMZ 2
Protected tree. Good form and vigor														
614	Peruvian Pepper	2	3	2	2			9	13	6 6 8 5	154	B	1-2 2-3 1-2	Remove due to location in FMZ 1 and prohibited species
Multi-stem, good vigor														
615	Peruvian Pepper	5.5						5.5	13	7 7 7 8	210	B	1-2 1-2 1-2	Remove due to location in FMZ 1 and prohibited species
Good vigor														

Appendix B – Site Plan Fue Modification Plan (TTM 5658)



Appendix C – Prohibited Plant List

Prohibited plant list:Botanical Name	Common Name	Comment*
Trees		
Abies species	Fir	F
Acacia species (numerous)	Acacia	F, I
Agonis juniperina	Juniper Myrtle	F
Araucaria species (A. heterophylla, A. araucana, A. bidwillii)	Araucaria (Norfolk Island Pine, Monkey Puzzle Tree, Bunya Bunya)	F
Callistemon species (C. citrinus, C. rosea, C. viminalis)	Bottlebrush (Lemon, Rose, Weeping)	F
Calocedrus decurrens	Incense Cedar	F
Casuarina cunninghamiana	River She-Oak	F
Cedrus species (C. atlantica, C. deodara)	Cedar (Atlas, Deodar)	F
Chamaecyparis species (numerous)	False Cypress	F
Cinnamomum camphora	Camphor	F
Cryptomeria japonica	Japanese Cryptomeria	F
Cupressocyparis leylandii	Leyland Cypress	F
Cupressus species (C. fobesii, C. glabra, C. sempervirens,)	Cypress (Tecate, Arizona, Italian, others)	F
Eucalyptus species (numerous)	Eucalyptus	F, I
Juniperus species (numerous)	Juniper	F
Larix species (L. decidua, L. occidentalis, L. kaempferi)	Larch (European, Japanese, Western)	F
Leptospermum species (L. laevigatum, L. petersonii)	Tea Tree (Australian, Tea)	F
Lithocarpus densiflorus	Tan Oak	F

Prohibited plant list:Botanical Name	Common Name	Comment*
Melaleuca species (M. linariifolia, M. nesophila, M. quinquenervia)	Melaleuca (Flaxleaf, Pink, Cajeput Tree)	F, I
Olea europea	Olive	I
Picea (numerous)	Spruce	F
Palm species (numerous)	Palm	F, I,
Pinus species (P. brutia, P. canariensis, P. b. eldarica, P. halepensis, P. pinea, P. radiata, numerous others)	Pine (Calabrian, Canary Island, Mondell, Aleppo, Italian Stone, Monterey)	F
Platycladus orientalis	Oriental arborvitae	F
Podocarpus species (P. gracilior, P. macrophyllus, P. latifolius)	Fern Pine (Fern, Yew, Podocarpus)	F
Pseudotsuga menziesii	Douglas Fir	F
Schinus species (S. molle, S. terebenthifolius)	Pepper (California and Brazilian)	F, I
Tamarix species (T. africana, T. aphylla, T. chinensis, T. parviflora)	Tamarix (Tamarisk, Athel Tree, Salt Cedar, Tamarisk)	F, I
Taxodium species (T. ascendens, T. distichum, T. mucronatum)	Cypress (Pond, Bald, Monarch, Montezuma)	F
Taxus species (T. baccata, T. brevifolia, T. cuspidata)	Yew (English, Western, Japanese)	F
Thuja species (T. occidentalis, T. plicata)	Arborvitae/Red Cedar	F
Tsuga species (T. heterophylla, T. mertensiana)	Hemlock (Western, Mountain)	F
Groundcovers, Shrubs & Vines		
Acacia species	Acacia (except dwarf/prostrate variety)	F
Adenostoma fasciculatum	Chamise	F
Adenostoma sparsifolium	Red Shanks	F
Agropyron repens	Quackgrass	F, I
Anthemis cotula	Mayweed	F, I
Arbutus menziesii	Madrone	F
Arctostaphylos species	Manzanita. Also note that Eastwood Manzanita grows to 8'	F
Arundo donax	Giant Reed	F, I
Artemisia species (A. abrotanium, A. absinthium, A. californica, A. caucasica, A. dracunculus, A. tridentata, A. pynocephala)	Sagebrush (Southernwood, Wormwood, California, Silver, True tarragon, Big, Sandhill)	F
*Atriplex species (numerous)***	Saltbush	F, I**
Avena fatua	Wild Oat	F
Baccharis pilularis	Coyote Bush	F
Bambusa species	Bamboo	F, I
Bougainvillea species	Bougainvillea	F, I, FR
Brassica species (B. campestris, B. nigra, B. rapa)	Mustard (Field, Black, Yellow) Wild Turnip	F, I

Prohibited plant list:Botanical Name	Common Name	Comment*
Bromus rubens	Foxtail, Red brome	F, I
Bromus carinatus	California brome	Grows to 5', Dies if cut
Castanopsis chrysophylla	Giant Chinquapin	F
Cardaria draba	Hoary Cress	I
Carpobrotus species	Ice Plant, Hottentot Fig	I
*Ceonothus griseus " Louis Edmunds***	Louis Edmunds Ceanothus	Grow higher than 18"*
*Ceonothus griseus var. horizontalis***	Carmel Creeper Ceonothus	Grows higher than 18"**
*Ceonothus griseus var. horizontalis "yankee point"**	Yankee Point Ceonothus	Grows higher than 18"**
*Ceonothus megacarpus***	Big pod ceonothus	Grows higher than 18"**
Cirsium vulgare	Wild Artichoke	F,I
Codariocalyx motorius	Telegraph Plant	F
Conyza bonariensis	Horseweed	F
Coprosma pumila	Prostrate Coprosma	F
Cortaderia selloana	Pampas Grass	F, I
Cytisus scoparius	Scotch Broom	F, I
Delosperma "alba"	White trailing Ice Plant	F
Dodonaea viscosa	Hopseed Bush	F
Drosanthemum Floribundum	Rosea Ice plant	F
Eriodictyon californicum	Yerba Santa	F
Eriogonum species (E. fasciculatum)	Buckwheat (California)	F
Fremontodendron species	Flannel Bush	F
Hedera species (H. canariensis, H. helix)	Ivy (Algerian, English)	I
Helix Canariensis	English Ivy	F
Heterotheca grandiflora	Telegraph Plant	F
Hordeum leporinum	Wild barley	F, I
Jasminum humile	Italian Jasmine	F
Juniperus species	Juniper	F
Lactuca serriola	Prickly Lettuce	I
Lamprathus aurantiacus	Bush Ice Plant	F
Lamprathus spectabilis	Trailing Ice Plant	F
Larix species (numerous)	Larch	F
Larrea tridentata	Creosote bush	F
Lepidium virginicum	Peppergrass	F
Leymus condensatus	Giant Wild Rye	Grows to 9' tall
Lolium multiflorum	Ryegrass	F, I
Lonicera japonica	Japanese Honeysuckle	F
Mahonia species	Mahonia	F
Miscanthus species	Eulalie Grass	F
Muhlenbergia species	Deer Grass	F

Prohibited plant list:Botanical Name	Common Name	Comment*
Nassella (stipa)leprida	Foothill needlegrass	Gets to 18" high. Cant cut to 4".
Nassella (stipa) pulchra	Purple needlegrass	Same comment as above
Nerium Oleander	Oleander	Toxic
Nicotiana species (N. bigelovii, N. glauca)	Tobacco (Indian, Tree)	F, I
Pennisetum setaceum	Fountain Grass	F, I
Perovskia atroplicifolia	Russian Sage	F
Phoradendron species	Mistletoe	F
Pickeringia montana	Chaparral Pea	F
Plumbago auriculate	Cape Plumbago	F
*Rhus (R. diversiloba, R. laurina, R. lentii)***	Sumac (Poison oak, Laurel, Pink Flowering)	F**. Poison oak presents a health hazard
Ricinus communis	Castor Bean	F, I
Rhus Lentii	Pink Flowering Sumac	F
Rosmarinus species	Rosemary (except dwarf/prostrate variety)	F
Salvia species (numerous)	Sage	F, I
Salsola australis	Russian Thistle	F, I
Senecio serpens	No common name	FR
Solanum Xantii	Purple Nightshade (toxic)	I, Toxic
Solanum Douglasii	Douglas Nightshade	Toxic
Silybum marianum	Milk Thistle	F, I
Tecoma capensis	Cape Honeysuckle	F
Thuja species	Arborvitae	F
Urtica urens	Burning Nettle	F
Vinca major	Periwnkle	I

*F = flammable, I = Invasive,

NOTES:

1. Plants on this list that are considered invasive are a partial list of commonly found plants. There are many other plants considered invasive that shall not be planted in a fuel modification zone and they can be found on The California Invasive Plant Council's Website www.cal-ipc.org/ip/inventory/index.php. Other plants not considered invasive at this time may be determined to be invasive after further study.

2. The absence of a particular plant, shrub, groundcover, or tree, from this list does not necessarily mean it is fire resistive.

3. Native, drought tolerant, plants are encouraged unless they are on this Prohibited Plant list or otherwise known as flammable or Invasive.

4. **: certain species of Ceonothus, Saltbush and Sumac need to be maintained free of dead materials, which builds up in the plant. Remove any poison oak (Sumac).