APPENDIX B

BIOLOGICAL RESOURCE INVENTORY AND IMPACT ANALYSIS

Biological Resources Inventory
and Impact Assessment

4302 Ford Road

Residential Development Project

City of Newport Beach, California

PREPARED FOR:

Citadel Environmental Service, Inc.

1725 Victory Boulevard
Glendale, CA 91201
Attn: Mr. Mark Drollinger
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PREPARED BY:

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January 4th, 2019

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1.0 INTRODUCTION

Envicom Corporation has prepared this biological resources inventory for the proposed 4302 Ford Road Residential Development Project (project) in the City of Newport Beach (City), California. The undeveloped project site is located at the western terminus of Ford Road, immediately south of Bonita Canyon Drive and immediately north of Bonita Canyon Sports Park (**Figure 1**, **Location Map**). The site is undeveloped with the exception of a barbed wire fence that trends northwest across the property and a portion of the APN, which is currently a paved lot for the commercial building to the east. The area surveyed for this report includes the project site (APNs 458-361-02 & -10) and a 100-foot buffer around that area.

This report provides an inventory of the biological resources at the project site and an analysis of impacts to biological resources for use in preparation of a CEQA document for the proposed project. The report first covers the literature reviewed and field surveys conducted to identify the biological resources at the site, followed by a discussion of existing biological conditions and mapped biological resources. Lists of plant and wildlife species observed, as well as an assessment of the potential for occurrence of special-status plant and wildlife species at the site are included as appendices to the report. This report was originally drafted in 2015. In December 2018, Envicom Corporation received a request from Citadel Environmental Services, Inc. to resurvey the project site, update the biological inventory, and prepare a biological impact assessment.

1.1 PROJECT DESCRIPTION

The proposed project consists of the construction of a 1.054 acre 2 to 3-story multi-family residential structure divided into 21 condominium units, as well as ancillary structures including driveways, parking, a pool, and landscaping. The project location is bound to the north by Bonita Canyon Drive, to the west by MacArthur Boulevard, to the south by the Bonita Canyon Sports Park, and to the east by a commercial structure operated by a utility company. A Site Map and a Planting and Irrigation Plan provided by MVE + Partners Architects, dated July 31 2018 and October 2017 respectively, is provided as **Appendix 1.**

1.2 PROJECT SITE AND SURVEY AREA

The Survey Area consists of the project site and a 100 foot buffer area (**Figure 2, Aerial of the Survey Area and Photo Locations)**. Representative photos of the project site and survey area are provided in **Plate 1** below.

Plant species observed by Envicom during the site survey are presented as **Appendix 2**. Casual observations of wildlife have been recorded based on sight or sign, including tracks, scat, or vocal recognition. **Appendix 3** provides a comprehensive list of vertebrate wildlife species and observed. **Appendix 5** provides a comprehensive listing of special status plant and vertebrate wildlife species with the potential to occur in the vicinity of the project.

Directions to the project site

Directions to the project site are provided from the City of Newport Beach Planning Division office located at 100 Civic Center Drive, Newport Beach, California 92660 to the Project location:

1. Take Avocado Avenue northeast;
2. Turn right onto San Miguel Drive;
3. Turn left onto MacArthur Boulevard;

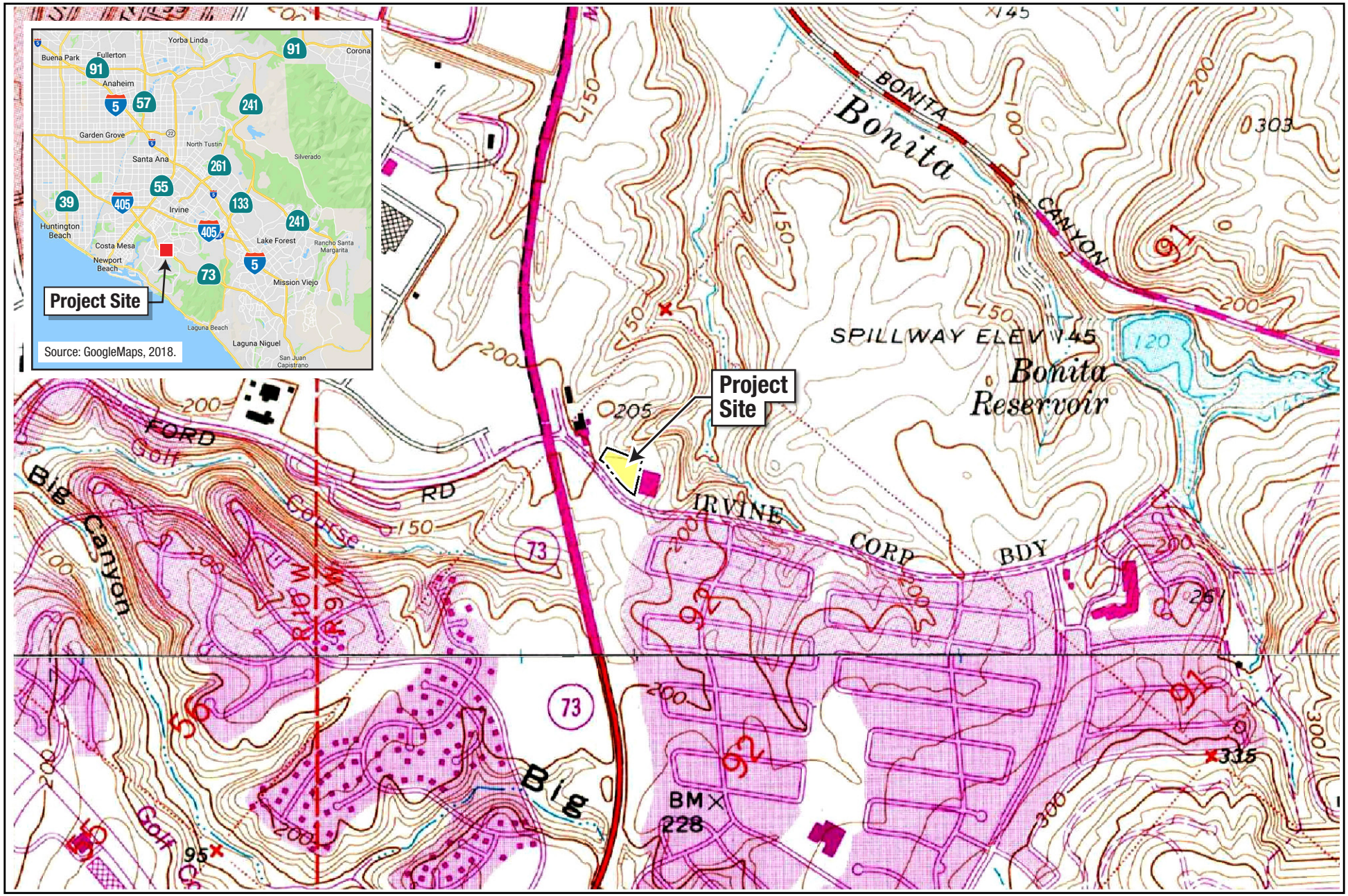
4. Turn right Bonita Canyon Drive;
5. Turn right onto Mesa View Drive;
6. Turn right onto Ford Road;

The project site is located at terminus of Ford Road on the right.

Contact Information

Contact information for the project proponent and biological consultant, respectively, are provided below.

Project Proponent	Biological Consultant
Citadel Environmental Services, Inc. Mr. Mark Drollinger 1725 Victory Boulevard Glendale, CA 91201 Office: (818) 246-2707	Envicom Corporation Mr. David West, Staff Biologist 4165 E. Thousand Oaks Boulevard, Suite 290 Westlake Village, CA 91362 Office: (818) 879-4700



Sources: Portions of Tustin and Laguna Beach 7.5 Min. U.S.G.S. Topographic Quadrangle Maps.

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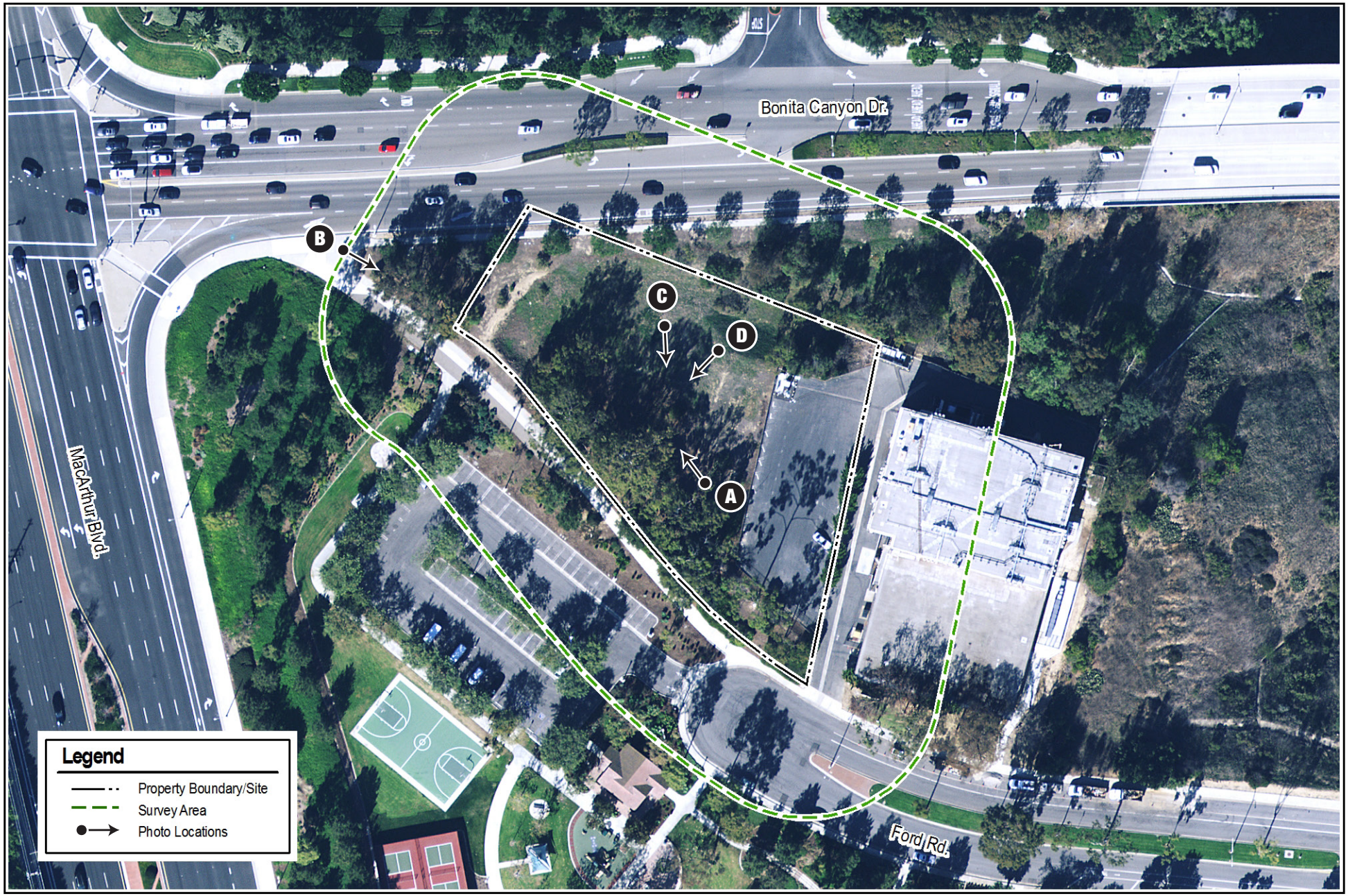
U.S.G.S. Location Map

0 500 1,000 Feet

FIGURE 1



Sources: Valtus Imagery Services: Hexagon Imagery Program (HxIP), 2017.

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Aerial of the Survey Area and Photo Locations

0 50 100 Feet

FIGURE 2

Photo A – View facing north/northwest from southeast corner, Bonita Canyon Drive in background.

Photo B – View of fenceline that extends across lot, mixed non-native woodland in background.

Photo C – View of small Coyote Brush Scrub community at northwestern corner of lot.

Photo D – View of mixed non-native woodland taken from center of lot.

General Site Conditions (December 18, 2018)

2.0 METHODS

2.1 LITERATURE REVIEW

A literature review was performed in preparation for field surveys that included information available in standard biological references (e.g., Baldwin et al. 2012; Sawyer, Keeler-Wolf, and Evens 2009; Reid 2006; Stebbins 2003) and relevant lists and databases pertaining to the status and known occurrences of sensitive and special-status resources. Other sources of information included aerial photographs, topographic maps, soil survey maps, climatic data, and relevant policy and planning documents. 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):

- *Biogeographic Information and Observation System (BIOS),* California Department of Fish and Wildlife (CDFW), data as of December 13, 2018;
- *California Natural Diversity Database (CNDDB) Rarefind 5* report for the 7.5' United States Geological Survey (USGS) Tustin quadrangle and eight surrounding quadrangles, CDFW, data as of December 13, 2018;
- *California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California* report for the 7.5' USGS Tustin quadrangle and seven surrounding quadrangles, CNPS, data as of December 13, 2018;
- *FWS Critical Habitat Mapper for Threatened and Endangered Species*, U.S. Fish and Wildlife Service (USFWS), data as of December 13, 2018;
- *List of Special Vascular Plants, Bryophytes, and Lichens,* CDFW, November 2018;
- *California Natural Communities List,* CDFW, October 2018; and,
- *Special Animals,* CDFW, November 2018.

2.2 PRE-FIELD EVALUATION

Prior to engaging in fieldwork, Envicom staff reviewed background reference materials to familiarize personnel with the Survey Area. These materials included historic and current aerial photographs (Google Earth 2018, Hexagon 2016) as well as the Natural Resources Conservation Service (NRCS) web soil survey (NRCS 2018).

2.3 FIELD SURVEYS AND HABITAT MAPPING

Mr. Tyler Barns, Staff Biologist at Envicom Corporation, conducted a biological survey of the project site on August 21, 2015. Field surveys were conducted by walking accessible areas of the site. Vegetation surveys included identification of plant communities, the plant species within each community, and a search for special-status plant species. All observed plant species were identified and recorded to the lowest taxonomic level possible. Plant nomenclature follows *The Jepson Manual: Vascular Plants of California, 2nd edition* (Baldwin B., et al. 2012). Surveys of non-vascular plants (lichens, mosses, liverworts, and hornworts) were not undertaken.

In response to the December 2018 request from Citadel Environmental Services, Inc., Mr. David West, Biologist of Envicom Corporation, performed a new biological survey of the project site on December 18, 2018, following the same protocols outlined above. The 2018 survey was conducted under calm, partly cloudy conditions from 10:55 a.m. to 1:10 p.m. with 66ºF - 67ºF temperatures.

2.4 FIELD EVALUATION

During the August 2015 survey, Envicom biologist Mr. Tyler Barns identified a topographically low area within the northwest portion of the site that appeared to collect storm water. This area was not considered jurisdictional (i.e., under regulatory authority of the U.S. Army Corps of Engineers, CDFW, or Regional Water Quality Control Board). No moisture was observed on-site. In addition, based on four shovel test pits, the site did not contain hydric soils. A concentration of iceplant (*Carpobrotus edulis*) indicated the topographically low area either received irrigation in some form or retained moisture at some time in the past. At the time of the survey, the iceplant was nearly desiccated, which indicated that the topographically low area was drying out. During the 2018 survey, no indication of change from the above conditions was observed.

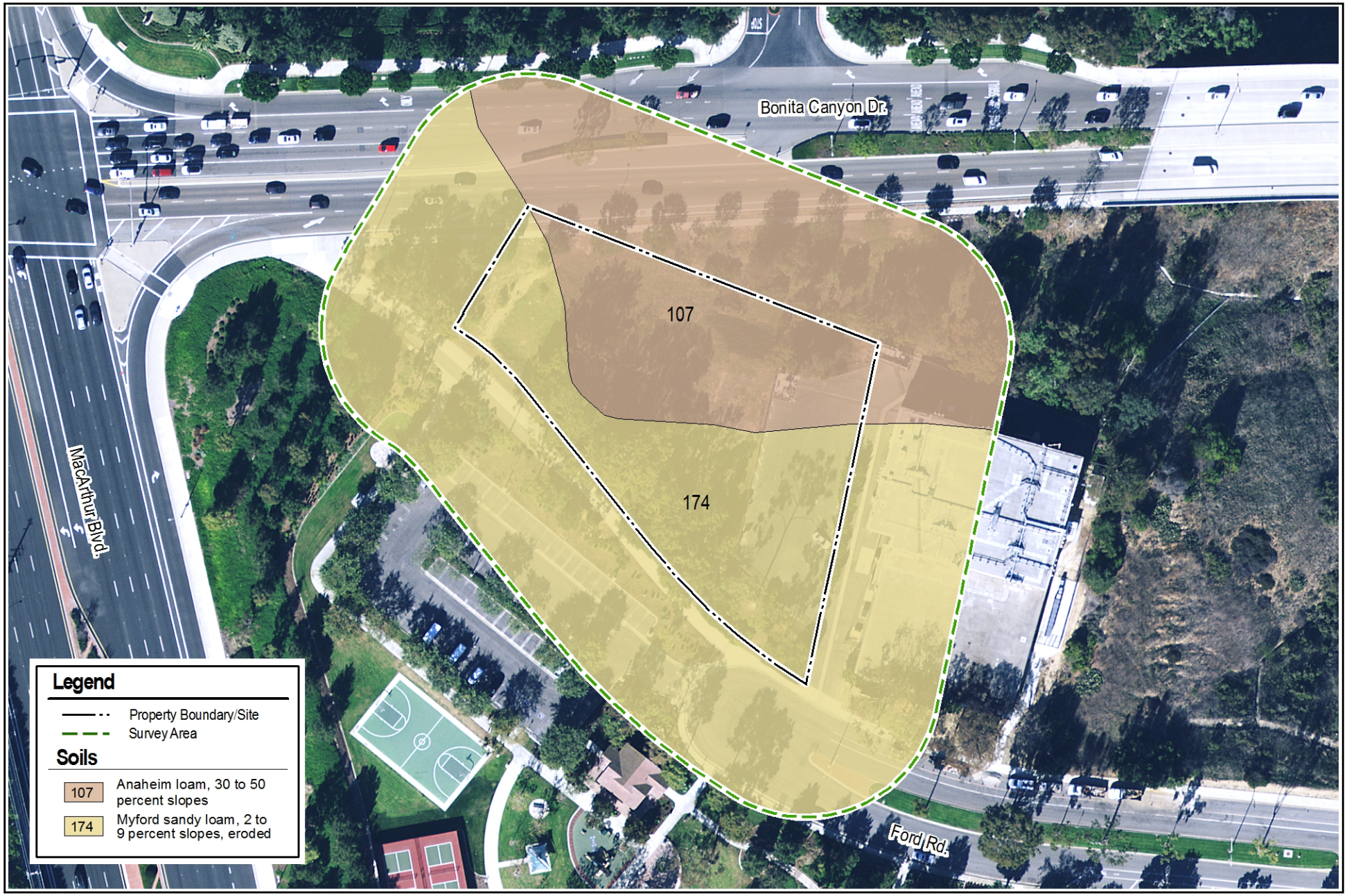
2.5 GLOBAL POSITIONING SYSTEM AND MAPPING

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 where necessary. 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).

3.0 ENVIRONMENTAL SETTING

The project site is situated at the western base of the San Joaquin Hills, at elevations ranging from approximately 190 to 200 feet above mean sea level. The site is located approximately 1 (one) mile south of Bonita Creek, approximately 1.4 miles east of Big Canyon, and approximately 800 feet southwest of an unnamed "blue-line" tributary of Bonita Creek. Immediately surrounding the site are MacArthur Boulevard, Bonita Canyon Drive, an AT&T utility building, and extensive residential developments. The site is generally dry and exposed, although portions under the cover of Eucalyptus (*Eucalyptus citriodora*) support more mesic vegetation when compared to the remainder of the site. The average high/low temperatures in the Newport Beach area are 67/57°F and precipitation is approximately 10.63 inches per year.

The Survey Area is located in the Lower San Diego Creek watershed (HUC 180702040103) within the larger Newport Bay watershed (HUC 18070204) and contains no jurisdictional habitat. Survey Area soils are of the Myford sandy loam and Anaheim loam, which are comprised of fine-grained residuum weathered from sandstone and shale as well as alluvium from mixed parent material (NRCS 2018). A soils map of the survey area is provided as **Figure 3**, **Natural Resources Conservation Service Soils Map**.



Sources: Valtus Imagery Services: Hexagon Imagery Program (HxIP), 2017. Data Source: NRCS Soils: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

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Natural Resources Conservation Service Soils Map

0 50 100 Feet

FIGURE 3

4.0 BIOLOGICAL RESOURCES

4.1 VEGETATION

The vegetation within the property is predominately ruderal with mixed grasses and forbs as well as mixed non-native trees growing along the western edge and within much of the easternmost portions of the survey area. These mixed non-native trees are comprised primarily of eucalyptus (*Eucalyptus* sp.), everblooming acacia (*Acacia retinodes*), and ngaio tree (*Myoporum laetum*). The composition and condition of the non-native grasslands in this portion of the site reflect a history of vegetation clearance, disking, and mowing for fuel modification purposes. The survey area encompassed landscaped portions surrounding the parking for the adjacent Bonita Canyon Sports Park; landscaping plants were documented where practical but are generally not included in appendices. Vegetation communities adjacent to the property are predominantly landscaping around nearby existing roads and residential developments, as well as turf in the park. More expansive areas of coastal sage scrub are located approximately 400 to 600 feet northeast and east of the site, but are separated by the utility building to the east of the site and Bonita Canyon Drive, as well as by fuel modification zones surrounding these structures and the residential complex across Bonita Canyon Drive to the north.

A discussion of the flora and habitats at the project site is provided below, which is organized by plant community type. Plant communities have been classified using the State Vegetation Classification system.

4.1.1 Vegetation / Land Cover Types

The vegetation within the project site consists predominately of landscaped areas (ornamental plantings, bare ground, and paved), disturbed and sparsely vegetated areas, patches of coastal prickly pear (*Opuntia littoralis*), patches of coyote brush scrub, and native and non-native grasses and forbs. The overall nature of the project area is highly disturbed, and existing patches of native vegetation are small and disturbed. Non-native grassland dominates the western half of the project site. The composition and condition of the non-native grasslands in this portion of the site reflect a history of vegetation clearance, disking, and mowing for fuel modification purposes. Vegetation communities immediately adjacent to the property are predominantly large contiguous developed lands (i.e., recreation facility and industrial).

The survey identified the following vegetation types as present at the project site:

- Woodland
- Shrub / Scrub
- Herbaceous
- Other/Disturbed

The vegetation at the site is classified in greater detail herein based on the most current system for identifying rare or sensitive plant communities recognized by the CDFW. One (1) native and four (4) non-native plant communities occur within the study area, as shown on **Figure 4, Generalized Vegetation and Impacts Map**. Plant communities have been classified using the *Natural Communities List* (CDFW, October 2018) where applicable. In the *Natural Communities List*, each plant community is assigned a conservation status rank (also known as "rarity rank"), which is used to determine the sensitivity of the plant community. Plant communities with global or state status ranks of G1 through G3, or S1 through S3, respectively, are considered to be sensitive, and are referred to as "natural communities of special concern." Plant communities are classified based on plant species composition and abundance, as well as the underlying abiotic conditions of the stand, such as slope, aspect, or soil

Sources: Valtus Imagery Services: Hexagon Imagery Program (HxIP), 2017.

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Generalized Vegetation and Impacts Map

0 50 100 Feet

FIGURE 4

type. The acreage and conservation status rank of plant communities occurring at the site are provided in **Table 1**. The only ranked community within the project area, coyote brush scrub (*Baccharis pilularis* / Annual Grass – Herb Alliance), is not considered to be rare or sensitive by CDFW. Furthermore, this community is disturbed on-site would not be considered an intact vegetation community. No other plant communities within the study area are considered rare or sensitive.

Table 1
Plant Communities and Land Cover Within Survey Area

Habitat Class	Plant Community or Land Cover[1]	Conservation Status Rank	Existing Conditions (Acres)
Woodland	Mixed Woodland (*Eucalyptus* sp., *Pinus* sp., *Acacia* sp. and *Myoporum* sp.)	Not ranked	0.68
	Eucalyptus Trees (*Eucalyptus sp.)*	Not ranked	0.15
Shrub/Scrub	Coyote Brush / Annual Grass – Herb Alliance (*Baccharis pilularis* – Annual Grass - Herb) [32.060.20]	G5S5	0.01
	Mixed Native and Non-Native Shrubs (*Opuntia littoralis, Baccharis pilularis, Acacia* sp., *Myoporum* sp.)	Not ranked	0.03
Herbaceous	Native and Non-Native Grasses and Forbs	Not ranked	0.67
Other /Disturbed	Paved	n/a	0.81
	Barren/Sparsely Vegetated	n/a	0.12
	Landscaping	n/a	0.62
	Developed	n/a	1.29
		TOTAL ACREAGE	**4.38**
"Survey Area" includes the subject property and areas within a 100-foot buffer, as shown on Figure 4.			

Woodland

Mixed trees, including at least two species of Eucalyptus (*Eucalyptus* spp.), everblooming acacia (*Acacia retinodes*), and landscape trees occur along the margins of the property. The mixed tree woodland community occupies approximately 0.68 acres within the survey area. The woodland understory is highly disturbed and comprised primarily of non-native grasses and forbs. Non-native trees within the Sports Park include acacia trees (*Acacia* sp.), and ornamental pines (*Pinus* sp.). The understory in these areas is composed mainly of non-native herbs, turf grass, and landscape cultivars.

Shrub/Scrub

The survey area includes two (2) shrub-scrub vegetation communities that are loosely categorized as coyote brush scrub and mixed native / non-native shrubs.

Baccharis pilularis/Annual Grass-Herb Shrubland Association

This shrubland association occurs on gentle to steep slopes with flat to variable aspect at low elevations between 1–568 meters. This community is highly disturbed within the subject property and is located at the northwestern extreme of the site. It is characterized by the dominance of coyote brush in the shrub layer and a variety of non-native largely annual grasses and herbs in the herbaceous layer. The tree layer within the property includes occasional non-native trees such as Eucalyptus spp. and wattle. Additional

[1] Numbers in brackets are unique codes for each plant community, as provided in *Natural Communities List* (CDFW, November 2018). Conservation status ranks are also from the *Natural Communities List*.

individual coyote brush shrubs were identified throughout the parcel but these do not meet the threshold of a community. Approximately 0.01 acres of this association are located within the subject property.

Mixed Native / Non-Native Shrubs

This patch along the eastern edge of the project area is comprised of native coastal prickly pear (*Opuntia littoralis*), everblooming acacia (*Acacia retinoides*), coyote brush (*Baccharis pilularis*), mulefat (*Baccharis salicifolia*), and Ngaio tree (*Myoporum laetum*). The quantity and context of the patch of coastal prickly pear did not meet the threshold for designation as a plant community. Given the disturbed nature of the site and the adjacent acacia and myoporum plants, the area was classified as Mixed Native / Non-Native shrubs.

Herbaceous Communities

A large extent of the survey area (approximately 0.67 acres) is annual grassland, which is mapped on Figure 4 as Native and Non-Native Grasses and Forbs. Much of the lower elevation areas of the site were disturbed (e.g., disked or mowed). Dominant non-native annual grasses in these areas include slender wild oats (*Avena barbata*) and red brome (*B. madritensis rubens*). Native herbs that were dominant in the grassland area west of the proposed development include clustered tarweed (*Deinandra fasciculata*) and one area of southern tarplant (*Centromadia parryi* ssp. *australis*). Southern tarplant is included in the CNPS Inventory of Rare and Endangered Plants on list 1B.1 (rare, threatened, or endangered in California and elsewhere).

In general, alien annuals, biennials and perennials within the herbaceous community include: Black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), tocalote, smooth cat's-ear (*Hypochaeris glabra*), common groundsel (*Senecio vulgaris*), common sow thistle (*Sonchus oleraceus*), bur-clover (*Medicago polymorpha*), red- and white-stemmed filarees (*Erodium cicutarium, E. moschatum*), and scarlet pimpernel (*Lysimachia arvensis*).

Other/Disturbed

Landscaping

Approximately 0.62 acres of individual non-native eucalyptus, acacia, juniper, pine, olive (*Olea europaea*), and street trees along Bonita Canyon Drive were included in the Landscape vegetation community. In addition, ornamental landscape plantings (e.g., groundcover) are located within the survey area. Vegetation within these areas was not classified to species. Individual eucalyptus trees were mapped when not considered part of the mixed tree woodland.

Barren/Sparsely Vegetated

Approximately 0.12 acres of sparsely vegetated areas are located within the survey area along Bonita Canyon Drive. These areas could have been categorized as landscaping, but the vegetation coverage is low.

Developed

Approximately 1.29 acres of developed area are located within the survey area and include the AT&T facility and hardscape areas.

4.1.2 Plant Communities / Habitats Listed in CNNDB

A review of the California Department of Fish and Wildlife's Natural Diversity Database (CNDDB) Rarefind 5 application indicates that 13 Sensitive Plant Communities/Habitats have been reported by other observers in the Tustin Quadrangle or within adjacent quadrangles:

- California Walnut Woodland;
- Riverside Alluvial Fan Sage Scrub;
- Southern California Arroyo Chub/Santa Ana Sucker Stream;
- Southern Coast Live Oak Riparian Forest;
- Southern Coastal Salt Marsh;
- Southern Cottonwood Willow Riparian Forest;
- Southern Dune Scrub;
- Southern Foredunes;
- Southern Interior Cypress Forest;
- Southern Riparian Scrub;
- Southern Sycamore Alder Riparian Woodland;
- Southern Willow Scrub, and;
- Valley Needlegrass Grassland.

None of these vegetation communities were found within the Survey Area.

4.2 PLANT SPECIES

4.2.1 Plant Species Observed

A total of 52 vascular plant taxa were identified during the survey of the site, including three (3) gymnosperms, 42 dicots and seven (7) monocots. Thirteen of the plants observed were native (25 percent) and thirty-nine were non-native (75 percent). A complete list of vascular plant species observed in the Survey Area is provided in Appendix 2.

4.2.2 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 by the U.S. Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act (FESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the CDFW under the California Endangered Species Act (CESA); and plants on the California Native Plant Society (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 CRPR 4 (a watch list for plants that are of limited distribution in California). Status Codes for Special-Status Plants are given in **Table 2** below.

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).	

Among 66 plant species designated by state and federal trustee resource agencies or by CNPS as occurring within the eight (8) USGS quadrangles around the subject property (Appendix 4), one (1) listed plant, southern tarplant (*Centromadia parryi* ssp. *australis*), was identified on-site during the August 2015 survey. No other special status plant species were observed during surveys. A springtime survey of the site was not conducted.

Five (5) individual southern tarplants were observed growing in ruderal habitats at the site. Southern tarplant is an annual herb in the sunflower family (Asteraceae), which grows on the margins of marshes

and vernal pools, as well as in seasonally mesic areas in valley and foothill grassland. There is presumably a small seed bank of this species remaining at the site. As the species is an annual, the number of plants that grow each year varies depending on growing conditions.

Southern tarplant was not observed during the December 2018 survey. However, given that southern tarplant is an annual plant and that the survey was conducted outside of the typical blooming period (March – November), the fact that southern tarplant was not observed is not an indication of its absence, and its presence should still be assumed.

An analysis of the potential for occurrence of special-status species at the project site was undertaken through research of the California Department of Fish and Wildlife's Natural Diversity Database (CDFW 2018), using the Rarefind 5 application for sensitive "elements" on the Tustin quadrangle, and seven others that surround it, including Anaheim, Orange, Black Star Canyon, Newport Beach, El Toro, Laguna Beach, and San Juan Capistrano. The California Native Plant Society (CNPS) Electronic Inventory for the USGS Tustin quadrangle and seven surrounding quadrangles was also reviewed. The CNDDB/CNPS derived lists are provided in **Appendix 4**.

A potential for occurrence analysis for additional special-status plant species known to occur in the region is presented in Appendix 5.

4.2.3 California Rare Plant Rank 4 Species

Plant species with a California Rare Plant Ranks of 4 do not meet criteria for listing as Threatened or Endangered pursuant to the California Endangered Species Act (CESA). Plants with a CRPR of 4 are not rare, but rather are included on a “watch list” of species with limited distribution. 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. No CRPR 4 plants were observed within the survey area.

4.5 WILDLIFE SPECIES

4.5.1 Wildlife Observed

Wildlife species observed during surveys of the site were species common or relatively common to urbanized areas in the region. A list of these species is included as **Appendix 3**. Many other non-special-status wildlife species can also be expected to utilize habitats at the site for cover, foraging, and reproduction. Furthermore, in general, this list includes species that are more easily detected during daytime surveys. Several species (e.g., reptiles, birds, small mammals) may reproduce in the Survey Area, and a wide range of larger or mobile species can be expected to utilize the site’s resources routinely, such as foraging raptors and mammals (e.g., striped skunk, coyote, raccoon, and Virginia opossum). Bird species observed during the survey consisted of year-round and summer residents as well as potential migrants. Several bird species likely nest within the Survey Area in any given year.

4.5.2 Special-Status Wildlife

For the purposes of this assessment, special-status wildlife species are those species that are listed, proposed for listing, or that meet the criteria for listing as endangered, threatened, or rare under the FESA or CESA; and those that are listed on the CDFW Special Animals list with a designation of SSC

(California Species of Special Concern) or CFP (California Fully Protected). The status codes for special-status wildlife are described in **Table 3**.

Special-Status Species Observed

No special-status wildlife species were observed during the site survey.

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)	"SA" is used herein if the animal is included on the CDFW Special Animals list but does not fall under any of the categories listed above. In general, special protection of these species is not mandatory under CEQA, although CDFW considers these species to be among those of greatest conversation need.

Potential for Occurrence Analysis

An analysis of the potential for occurrence of special-status wildlife at the site was performed, which includes the species' protected status, primary habitat associations, and an assessment of their potential for occurrence (high, moderate, low, or none). The potential for occurrence was undertaken through research of the CDFW Natural Diversity Database (CDFW 2018) using the Rarefind application for special-status "elements" on the Tustin quadrangle and seven adjacent quadrangles. The potential for occurrence analysis provides an assessment of the potential for the occurrence at the site of special-status animals on the basis of their known distribution and habitat requirements. The potential for occurrence analysis for special-status is presented in Appendix 5.

The property does not contain federally designated critical habitat for any listed wildlife species.

4.6 HABITAT LINKAGES AND WILDLIFE MOVEMENT

Wildlife must be able to access suitable habitat for water, foraging, breeding, and cover. Examples of barriers or impediments to movement, i.e., access, include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Wildlife movement corridors are physical connections that allow wildlife to move between areas of suitable habitat in both undisturbed and fragmented landscapes. These can be critical at both the local and regional level. Wildlife movement corridors are necessary not only to access essential resources, but 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. The term habitat linkage typically refers to larger 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. Wildlife crossings include culverts, drainage pipes, underpasses, tunnels, and, more recently, crossings created specifically for wildlife movement over highways.

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 (e.g., a regional-scale habitat linkage or a wildlife movement corridor):

- City of Newport Beach General Plan (July 2006);
- South Coast Missing Linkages Project: A Linkage Design for the San Gabriel – San Bernardino Connection (Penrod, K. et. al., 2008).

The potential importance of the project site to wildlife movement was also evaluated both in the field and by reviewing recent aerial photographs of the site and the surrounding area. The property is located within 350 feet of an unnamed tributary of Bonita Creek, which could potentially be used for movement by a variety of wildlife, including medium and large-size mammals. Some wildlife species, especially those adapted to urban environments, could potentially move through the property, as it contains vegetation and suitable habitat for some species, however the proposed development is not important to wildlife for movement. For example, the site is not situated within a bottleneck of habitat between larger areas of core suitable habitat, it does not contain an important riparian corridor or wildlife crossing, and it is not necessary for wildlife to pass through the site to access essential resources for water, foraging, breeding, or cover. The project site is situated within an urban setting, surrounded by developed lots, and therefore development of the project would not fragment existing natural habitats.

5.0 PROJECT IMPACTS AND RECOMMENDATIONS

The proposed project consists of the construction of a 1.054 acre 2 to 3-story multi-family residential structure divided into 21 condominium units, as well as ancillary structures including driveways, parking, a pool, and landscaping. This impact analysis relies on the Preliminary Grading Plan (July 2018) and a Planting and Irrigation Plan (October 2017) provided by MVE + Partners Architects, which are provided in Appendix 1. It is based upon standard CEQA thresholds of significance for biological resources, as provided in CEQA Guidelines Appendix G.

5.1 IMPACTS TO PLANT COMMUNITIES

The proposed grading and proposed landscaping footprints are shown overlaid on the site's vegetation on Figure 4. The entire project area is either developed, landscaped, or currently subject to fuel modification and is highly disturbed. The vegetation (and other land cover) that would be impacted by project grading is listed in **Table 4** below, which includes mixed native and non-native grasses and forbs, mixed non-native woodland, mixed native and non-native shrubs, and other landscaped areas. The project site is surrounded on all sides by existing development, roads, and landscaped areas, and therefore with the exception of a very small patch of coyote brush scrub located to the west of the property any additional proposed landscaping as well as any fuel modification necessitated by the new development would not impact native habitats. The small patch of coyote brush scrub is not a protected plant community. None of the plant communities that would be impacted by the proposed project including by grading, landscaping, or potential fuel modification are considered special-status, rare, or sensitive and, therefore, project impacts to plant communities would be less than significant.

Table 4
Grading Impacts to Vegetation/Land Use Types

Habitat Class	Plant Community or Land Cover	Survey Acreage	Project Impacts (Acres)
Woodland	Mixed Woodland (*Eucalyptus* sp., *Pinus* sp., *Acacia* sp. and *Myoporum* sp.)	0.68	0.36
	Eucalyptus Trees (*Eucalyptus sp.)*	0.15	0.05
Shrub/Scrub	Coyote Brush / Annual Grass – Herb Alliance (*Baccharis pilularis* – Annual Grass - Herb)	0.01	0.00
	Mixed Native and Non-Native Shrubs (*Opuntia littoralis, Baccharis pilularis, Acacia* sp., *Myoporum laetum*)	0.028	0.028
Herbaceous	Native and Non-Native Grasses and Forbs	0.67	0.51
Other /Disturbed	Paved	0.81	0.01
	Barren/Sparsely Vegetated	0.12	0.07
	Landscaping	0.62	0.06
	Developed	1.29	0.38
TOTAL ACREAGE		**4.38**	**1.47**

5.2 IMPACTS TO SPECIAL-STATUS PLANTS

This evaluation of impacts to special-status plants considers those species that require mandatory special consideration and/or protection pursuant to the Federal Endangered Species Act, the State Endangered Species Act, and/or CEQA. CRPR 4 species are also considered if protected by local policy or if they meet criteria to be locally significant.

Among 66 plant species designated by state and federal trustee resource agencies or by CNPS as occurring within the eight (8) USGS quadrangles including and surrounding the subject property (Appendix 5), one (1) rare plant, southern tarplant (*Centromadia parryi* ssp. *australis*), was identified on-site. All other special-status plant species known to occur in the region are considered absent from the site or have a very low probability of presence based on the results of the prior botanical surveys conducted in August 2015 and December 2018 as well as lack of suitable habitat and/or the highly disturbed condition of the site. Due to the low probability of occurrence or confirmed absence of these species, project impacts to other special status plants would be less than significant.

As stated above in Section 4.2.1, southern tarplant was not observed during the December 2018 site visit, however the survey was conducted out of the blooming period for the annual southern tarplant, and therefore its presence should still be assumed based upon the August 2015 survey, which revealed the presence of 5 (five) individual southern tarplant plants. A small seed bank of this species presumably still exists at the site. With this consideration, project development would result in the removal of five (5) individuals (based on the number of live plants observed in Spring 2015) as well as a southern tarplant seed bank occupying approximately 0.005 acres of southern tarplant habitat within the development area, which would be a significant, but mitigable impact. Impacts to southern tarplant would be reduced to a less-than-significant level given adherence to Mitigation Measure (MM) BIO-1**:**

MM BIO-1: The Applicant shall offset the loss of five (5) individual southern tarplant plants as well as a southern tarplant seed bank occupying 0.005 acres by off-site enhancement of occupied southern tarplant habitat at a 2:1 ratio, or a method acceptable to the City of Newport Beach Planning Division and CDFW (if applicable).

A Mitigation and Monitoring Plan that provides for the enhancement of occupied southern tarplant habitat at a 2:1 ratio shall be developed by a qualified restoration specialist and approved by the City of Newport Beach Planning Division and CDFW (if applicable). The Plan shall specify the following, as applicable:

- a summary of impacts;
- the location of the mitigation site;
- site preparation procedures for the mitigation site;
- methods to enhance occupied habitat at the mitigation site;
- a schedule and action plan to maintain and monitor the mitigation area;
- criteria and performance standards by which to measure the success of the mitigation, including the enhancement of occupied habitat;
- measures to exclude unauthorized entry into the mitigation areas; and,
- contingency measures in the event that mitigation efforts are not successful.

The performance standards for the Mitigation and Monitoring Plan shall be at a minimum the following:

- Non-native species in the treated area shall be less than 15% cover by the end of the third year of treatment and less than 5% by the end of the fifth year of treatment, and;
- Enhancement will be considered successful after the success criteria have been met for a period of at least 2 years without any maintenance or remediation activities other than invasive species control.

The mitigation program shall be initiated prior to development of the Project and shall be implemented over a five-year period or until performance standards are met, whichever period is longer. This may include 3 years of active maintenance followed by 2 years of no maintenance, provided that the success criteria are met in years 4 and 5. The mitigation program shall incorporate an iterative process of annual monitoring and evaluation of progress, and allow for adjustments to the Plan, as necessary, to achieve desired outcomes and meet performance standards.

Annual reports discussing the implementation, monitoring, and management of the mitigation program shall be submitted to the City of Newport Beach Planning Division and CDFW (if applicable). Five years after the start of the mitigation program, a final report shall be submitted to the City of Newport Beach Planning Division and CDFW (if applicable), which shall at a minimum discuss the implementation, monitoring, and management of the mitigation program over the five-year period, and indicate whether the mitigation program has been successful based on established performance standards. The mitigation program shall be extended if performance standards have not been met to the satisfaction of City of Newport Beach Planning Division and CDFW (if applicable) at the end of the five-year period.

5.3 IMPACTS TO SPECIAL-STATUS WILDLIFE

This assessment of impacts to special-status wildlife considers 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 with a designation of SSC (California Species of Special Concern) or CFP (California Fully Protected), as mandatory special consideration and/or protection of these species is required pursuant to the Federal Endangered Species Act, the State Endangered Species Act, and/or CEQA. The potential for occurrence analysis for special-status wildlife species known to occur in the region is presented in Appendix 5. Given the lack of potential or the low to very low potential for occurrence of these species as well as the urban and highly disturbed condition of the site, no direct loss or injury to a special-status wildlife species is anticipated and potential impacts would be less than significant.

5.4 IMPACTS TO NESTING BIRDS

Ground and vegetation disturbing activities if conducted during the nesting bird season (February 1 to August 31) would have the potential to result in removal or disturbance to trees and shrubs that could contain active bird nests. In addition, these activities would also affect herbaceous vegetation that could support and conceal ground-nesting species. Project activities that result in the loss of bird nests, eggs, and young, would be in violation of one or more of California Fish and Game Code sections 3503 (any bird nest), 3503.5 (birds-of-prey), or 3511 (Fully Protected birds). In addition, removal or destruction of one or more active nests of any other birds listed by the federal Migratory Bird Treaty Act of 1918 (MBTA), whether nest damage was due to vegetation removal or to other construction activities, would be considered a violation of the MBTA and California Fish and Game Code Section 3511. The loss of protected bird nests, eggs, or young due to project activities would be a significant impact. Implementation of MM **BIO-2** would reduce potentially significant impacts to nesting birds to a less-than-significant level.

MM BIO-2 No earlier than 14 days prior to ground or vegetation disturbing activities that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically February 1 through August 31), a qualified biologist shall perform two (2) field surveys to determine if active nests of any bird species protected by the state or federal

Endangered Species Acts, Migratory Bird Treaty Act, and/or the California Fish and Game Code Sections 3503, 3503.5, or 3511 are present in the disturbance zone or within 200 feet of the disturbance zone for songbirds or within 500 feet of the disturbance zone for raptors and special-status bird species. The second nesting bird survey shall be conducted within three days of the start of ground or vegetation disturbing activities. A brief letter report summarizing the methods and results of the surveys shall be submitted to the City of Newport Beach Planning Division prior to commencement of project activities. In the event that an active nest is found within the survey area, site preparation or construction activities shall stop until the biologist establishes an appropriate setback buffer. The buffer shall be demarcated and project activities within the buffer shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting.

5.5 IMPACTS ON WILDLIFE MOVEMENT

The project site is not within an area that has been identified as important to wildlife movement. The site is not within a bottleneck of habitat between larger areas of core suitable habitat and it is not necessary for wildlife to pass through the site to access essential resources for water, foraging, breeding, or cover. In addition, because the project site is surrounded by development, proposed project activities would not fragment natural habitats. Impacts to wildlife movement would be less than significant.

6.0 REFERENCES

American Ornithologists' Union (AOU). 1998. Check-list of North American birds. Seventh edition. American Ornithologists' Union, Washington, D.C. [as modified by subsequent supplements and corrections published in The Auk]. Also available online: http://www.aou.org/.

Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffman, C. A. Jones, F. Reid, D. W. Rice, and C. Jones. 2003. Revised checklist of North American mammals north of Mexico, 2003. Museum of Texas Tech University Occasional Papers 229:1-23.

Baldwin, B. G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

California Department of Fish and Wildlife, Biogeographic Information and Observation System (BIOS), data as of December 13, 2018.

California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB) Rarefind 5 Element Occurrence Report for Tustin and seven surrounding USGS quadrangles, data as of December 13, 2018.

California Department of Fish and Wildlife, Natural Diversity Database. November 2018. Special Animals List. Periodic publication. 51 pp.

California Department of Fish and Wildlife, November 2018. List of Special Vascular Plants, Bryophytes, and Lichens.

California Department of Fish and Wildlife, October 2018. California Natural Communities List

California Native Plant Society, CNPS Inventory of Rare and Endangered Plants, 8th ed., for Tustin and seven surrounding USGS quadrangles, data as of December 13, 2018.

City of Newport Beach General Plan, July 2006.

Constantine, D.G. 1998. Range extensions of ten species of bats in California. Bull. So. California Acad. Sci. 97(2):49-75.

Cornell Lab of Ornithology, Birds of North America Online, data as of December 13, 2018. http://bna.birds.cornell.edu/bna.

Crother, B. I. (editor). 2008. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. Sixth edition. Society for the Study of Amphibians and Reptiles Herpetological Circular 37:1-84.

Doyle, William T., and Raymond E. Settler. 2006. Contributions toward a bryoflora of California III. Keys and annotated species catalogue for liverworts and hornworts. Madrono 53(2):89-197.

Garrett, K., Dunn, J., and Morse, B. 2006. Birds of the Los Angeles Region. R.W. Morse Company. Olympia, WA.

Garrett, K. and J. Dunn. 1981. Birds of Southern California; Status and Distribution. Los Angeles Audubon Society, Los Angeles, California.

Grinnell, J., and A.H. Miller. 1944. The Distribution of the Birds of California. Pacific Coast Avifauna No. 27. 608 pp.

Grossman, D.H., K. Goodin, M. Anderson, P. Bourgeron, M.T. Bryer, R. Crawford, L. Engelking, D. Faber-Langendoen, M. Gallyoun, S. Landaal, K. Metzler, K.D. Patterson, M. Pyne, M. Reid, L. Sneddon, and A.S. Weakley. 1998. International classification of ecological communities: Terrestrial Vegetation of the United States. The Nature Conservancy, Arlington, Virginia.

Hall, E.R., and K.R. Kelson. 1959. The mammals of North America. Ronald Press Co., New York.

Jennings, C.W., and R.G. Strand (compilers). 1969. Geologic Map of California (Los Angeles Sheet). California Division of Mines and Geology.

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and reptile species of Special Concern in California. California Department of Fish and Game Inland Fisheries Division, Rancho Cordova, California.

Jepson Online Interchange: California Floristics, U.C. Berkeley, data as of December 2018. http://ucjeps.berkeley.edu/interchange/

Munz, P.A. 1974. Flora of Southern California.

Penrod, K., C. Cabañero, P. Beier, C. Luke, W. Spencer, E. Rubin, S. Loe, and K. Meyer. 2004. South Coast Missing Linkages Project: A Linkage Design for the San Gabriel-San Bernardino Connection. South Coast Wildlands, Idyllwild, CA. www.scwildlands.org.

Reid, Fiona. A Field Guide to Mammals of North America, 4th ed., Houghton Mifflin Company, New York, New York, 2006.

Sawyer, J.O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed., California Native Plant Society Press, Sacramento, California, 2009. Selby, W.A. 2000. Geography of California.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.

Sibley, D.A. 2003. The Sibley Field Guide to Birds of Western North America. A.A. Knopf, New York.

Stebbins, Robert C. (Robert Cyril). A Field Guide to Western Reptiles and Amphibians, 3rd ed., Houghton Mifflin Company, New York, New York, 2003.

U.S. Fish and Wildlife Service, FWS Critical Habitat Mapper for Threatened and Endangered Species, U.S. Fish and Wildlife Service, data as of December 13, 2018.

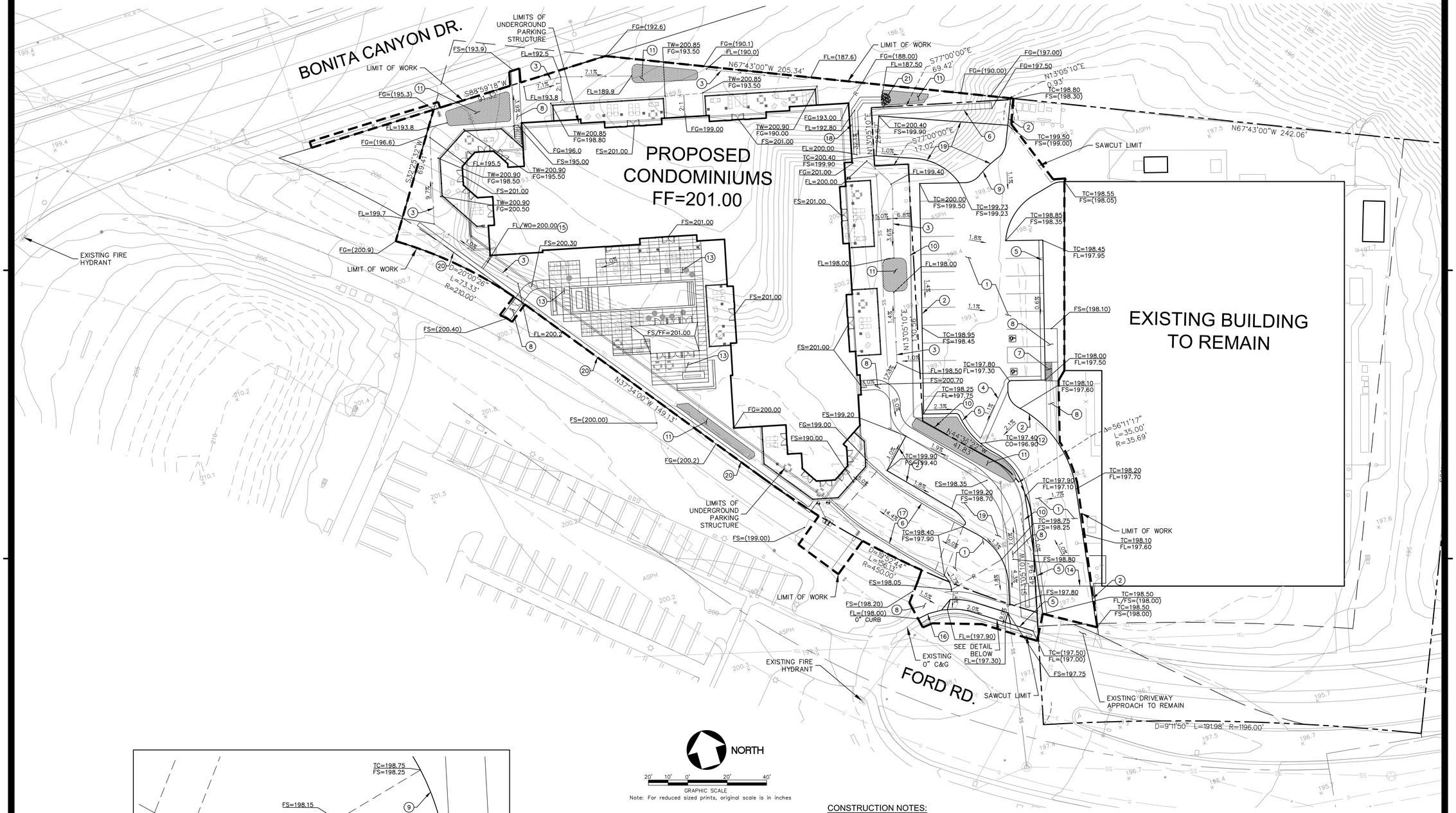
Zeiner, D.C, W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1988 (May). California's Wildlife. Vol. I Amphibians and Reptiles. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

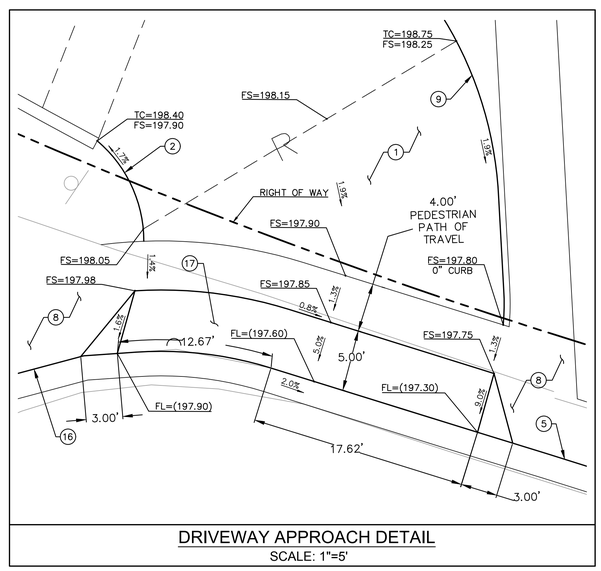
Zeiner, D.C, W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a (April). California's Wildlife. Vol. III Mammals. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

Zeiner, D.C, W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990b (November). California's Wildlife. Vol. II Birds. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

APPENDIX 1

Site Plan (July 2018) & Planting and Irrigation Plan (October 2017), MVE + Partners Architects





DRIVEWAY APPROACH DETAIL
SCALE: 1"=5'

NORTH

20' 10' 0' 20' 40'

GRAPHIC SCALE

Note: For reduced sized prints, original scale is in inches

CONSTRUCTION NOTES:

1. ASPHALT PAVEMENT.
2. 6-INCH CURB TYPE "B" PER CITY OF NEWPORT BEACH STANDARD DRAWING STD-182-L.
3. FLOWLINE
4. V-GUTTER
5. CURB AND GUTTER TYPE "A" PER CITY OF NEWPORT BEACH STANDARD DRAWING STD-182-L.
6. RETAINING WALL.
7. DETECTABLE WARNING SURFACE.
8. SIDEWALK PER CITY OF NEWPORT BEACH STANDARD DRAWING STD-180-L. COLOR AND FINISH PER LANDSCAPE PLANS.
9. 6-INCH MOUNTABLE CURB TYPE "D" PER CITY OF NEWPORT BEACH STANDARD DRAWING STD-183-L.
10. CHAINLINK FENCE.
11. PROPOSED INFILTRATION BASIN.
12. CURB OPENING
13. PAVERS.
14. GATE PER ARCHITECTURAL PLANS SHEET A0.40
15. WALL OPENING
16. 0" CURB AND GUTTER
17. DRIVEWAY APPROACH TYPE I PER CITY OF NEWPORT BEACH STANDARD DRAWING STD-160-L-A AND STD-160-L-C.
18. DOWNDRAIN
19. GRASSCRETE PAVING.
20. SCREEN WALL.
21. RIPRAP

NOTE: STANDARD PLANS REFERENCED HEREON ARE PRELIMINARY ONLY. ALL CITY OF NEWPORT, ORANGE COUNTY & GREENBOOK STANDARD PLANS APPLY TO THIS PROJECT.

LEGEND

- STORM DRAIN PIPE (SD)
- WATER LINE (W)
- SANITARY SEWER LINE (SS)
- FIRE WATER LINE (FW)
- IRRIGATION LINE (IW)
- SANITARY SEWER LINE (SS)
- TELECOMMUNICATION LINE (T)
- GAS LINE (G)
- ELECTRIC LINE (E)
- FLOWLINE
- PROPERTY LINE
- SETBACK
- EASEMENT
- LIMIT OF WORK
- RIDGE LINE (R)
- PROPOSED GRADE CALLOUT (38.55 FS)
- EXISTING GRADE CALLOUT ((38.55) FS)
- EXISTING CONTOUR (200)
- PROPOSED CONTOUR (200)

PLANS PREPARED BY:
PSOMAS
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707
(714) 751-7373 Fax (714) 545-8883

Hines

ADDRESS

TELEPHONE: (

Ford Road Residential

Newport Beach, CA

REVISIONS

	DESCRIPTION	DATE
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SHEET TITLE

PRELIMINARY GRADING

SHEET NUMBER C-1

JOB NO. 2015.10197

DATE 2018.07-31

SCALE As indicated

MVE + PARTNERS
1900 Main Street, Suite 800
Irvine, California 92614
949.809.3388
www.mve-architects.com

Entitlement Set Progress_2018-07-31

PLANTING LEGEND

TREE

- EXISTING TREE
- NATIVE HILLSIDE TREE
- RIPARIAN TREE
- ACCENT TREE
- POOL TREE

SHRUBS

- COURTYARD PLANTING
- NATIVE CANYON PLANTING

OTHERS

- GRASSCRETE

IRRIGATION LEGEND

TREE

- ALL TREES TO BE IRRIGATED BY BUBBLES, 2 FOR EACH TREE

SHRUB

- ALL PLANTING AREA TO BE DRIP IRRIGATED

OTHERS

- ALL GRASSCRETE AREA WITH GRAVEL AND MEADOWGRASS TO BE IRRIGATED WITH MICRO-SPRAYS

IRRIGATION NOTE:

- ALL IRRIGATION TO MEET 2015 MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND SHALL NOT EXCEED ESTIMATED TOTAL WATER USE (ETWU).

- ALL CONTROLLERS WILL BE WEATHER BASED.

N

0 25 50

landLAB
environmental design

Hines

ADDRESS

TELEPHONE: (

Ford Road Residential
Newport Beach, CA

REVISIONS

	DESCRIPTION	DATE
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SHEET TITLE
PLANTING AND IRRIGATION PLAN

SHEET NUMBER
L0.30

JOB NO. 2015.10197
DATE 2017.10-13
SCALE As indicated

MVE + PARTNERS
1900 Main Street, Suite 800
Irvine, California 92614
949.809.3388
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Entitlement Set Progress_2017-10-24

APPENDIX 2
Vascular Plant Species Observed at the Project Site, August 21, 2015 and December 18, 2018

* Denotes non-native or introduced species

GROUP **Family** ***Scientific Name***	**Common Name**
CONIFERS	
Pinus (Pine family)	
**Pinus* sp.	pine
Cupressaceae (Cypress family)	
**Cupressus sempervirens*	Italian cypress
**Juniperus* sp.	juniper
FLOWERING PLANTS - DICOTS	
Amaranthaceae (Amaranth family)	
Amaranthus blitoides	prostrate pigweed
Anacardiaceae (Cashew family)	
Rhus integrifolia	lemonade berry
**Schinus terebinthifolius*	Brazilian peppertree
Aizoaceae (Stone plants family)	
**Carpobrotus edulis*	iceplant
Asteraceae (Sunflower family)	
Baccharis pilularis	coyote bush
Baccharis salicifolia	mulefat
**Carduus pycnocephalus*	Italian thistle
**Centauria melitensis*	tocalote
Centromadia parryi ssp. *australis*	southern tarplant
**Cynara cardunculus* ssp. *cardunculus*	artichoke thistle
Deinandra fasciculata	fascicled tarweed
**Dimorphotheca fruticosa*	trailing African daisy
Grindelia camporum	common gumplant
**Lactuca serriola*	prickly lettuce
**Silybum marianum*	milk thistle
**Sonchus oleraceus*	common sow thistle
Apiaceae (Carrot family)	
**Foeniculum vulgare*	wild fennel
Brassicaceae (Mustard family)	
**Brassica nigra*	black mustard
**Hirschfeldia incana*	hoary mustard
**Sisymbrium irio*	London rocket
Boraginaceae (Borage family)	
**Echium candicans*	pride of Madeira
Cactaceae (Cactus family)	
**Opuntia ficus-indica*	tuna cactus
Opuntia littoralis	coastal prickly pear
Chenopodiaceae (Goosefoot family)	
**Salsola tragus*	Russian thistle
**Salsola australis*	Russian thistle
**Chenopodium murale*	nettle-leaf goosefoot
Euphorbiaceae (Spurge family)	
**Euphorbia maculata*	spotted spurge
Fabaceae (Pea family)	
**Acacia retinodes*	everblooming acacia
Acmispon glaber var. *glaber*	deer weed

GROUP **Family** ***Scientific Name***	**Common Name**
**Medicago polymorpha*	burclover
**Melilotus indicus*	annual yellow sweetclover
Geraniaceae (Geranium family)	
**Erodium cicutarium*	red-stem filaree
Malvaceae (Malllow family)	
**Malva parviflora*	cheeseweed mallow
Myrsinaceae (Myrsine family)	
**Lysimachia arvensis*	scarlet pimpernel
Myrtaceae (Myrtle family)	
**Eucalyptus* sp.	Eucalyptus
**Eucalyptus citriodora*	lemon scented gum
Oleaceae (Olive family)	
**Olea europaea*	olive
Oxalidaceae (Wood sorrel family)	
**Oxalis pes-caprae*	Bermuda buttercup
Polygonaceae (Buckwheat family)	
**Rumex crispus*	curly dock
Rubiaceae (Coffee family)	
Galium aparine	annual bedstraw
Solanaceae (Nightshade family)	
**Solanum* sp.	nightshade
Scrophulariaceae (Figwort family)	
**Myoporum laetum*	ngaio tree
FLOWERING PLANTS - MONOCOTS	
Poaceae (Grass family)	
**Avena barbata*	slender wild oats
**Bromus madritensis* ssp. *rubens*	red brome
**Cynodon dactylon*	Bermuda grass
**Festuca* sp.	festuca
**Pennisetum setaceum*	fountaingrass
Stipa lepida	foothill needlegrass
**Stipa miliacea*	smilo grass

APPENDIX 3
Vertebrate Wildlife Species Observed
August 21, 2015 and December 18, 2018

Common Name	*Scientific Name*
REPTILES	
western fence lizard	*Sceloporus occidentalis*
BIRDS	
American crow	*Corvus brachyrhynchos*
Allen's hummingbird	*Selasphorus sasin*
black phoebe	*Sayornis nigricans*
bushtit	*Psaltriparus minimus*
dark-eyed junco	*Junco hyemalis*
European starling	*Sturnus vulgaris*
house finch	*Haemorhous mexicanus*
mourning dove	*Zenaida macroura*
oak titmouse	*Baeolophus inornatus*
rock dove	*Columba livia*
song sparrow	*Melospiza melodia*
wrentit	*Chamaea fasciata*
yellow warbler	*Setophaga petechia brewsteri*
MAMMALS	
California ground squirrel	*Spermophilus beecheyi*
coyote	*Canis latrans*
desert cottontail	*Sylvilagus audubonii*
domestic dog	*Canis familiaris*

APPENDIX 4
CNDDB/CNPS Literature Search Results
December 2018

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Tustin (3311767) OR Anaheim (3311778) OR Orange (3311777) OR Black Star Canyon (3311776) OR Newport Beach (3311768) OR El Toro (3311766) OR Laguna Beach (3311757) OR San Juan Capistrano (3311756))

Newport Beach

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aphanisma blitoides aphanisma	PDCHE02010	None	None	G3G4	S2	1B.2
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	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
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex pacifica south coast saltscale	PDCHE041C0	None	None	G4	S2	1B.2
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Baccharis malibuensis Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Chaenactis glabriuscula var. orcuttiana Orcutt's pincushion	PDAST20095	None	None	G5T1T2	S1	1B.1
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Choeronycteris mexicana Mexican long-tongued bat	AMACB02010	None	None	G4	S1	SSC
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	Proposed Threatened	Endangered	G2T1	S1	1B.1
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Cicindela gabbii western tidal-flat tiger beetle	IICOL02080	None	None	G2G4	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cicindela latesignata latesignata western beach tiger beetle	IICOL02113	None	None	G2G4T1T2	S1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Comarostaphylis diversifolia ssp. diversifolia summer holly	PDERI0B011	None	None	G3T2	S2	1B.2
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Dudleya stolonifera Laguna Beach dudleya	PDCRA040P0	Threatened	Threatened	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Eryngium aristulatum var. parishii San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphorbia misera cliff spurge	PDEUP0Q1B0	None	None	G5	S2	2B.2
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Helianthus nuttallii ssp. parishii Los Angeles sunflower	PDAST4N102	None	None	G5TH	SH	1A
Hesperocyparis forbesii Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Isocoma menziesii var. decumbens decumbent goldenbush	PDAST57091	None	None	G3G5T2T3	S2	1B.2
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lepechinia cardiophylla heart-leaved pitcher sage	PDLAM0V020	None	None	G3	S2S3	1B.2
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lithobates pipiens northern leopard frog	AAABH01170	None	None	G5	S2	SSC
Monardella hypoleuca ssp. intermedia intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Nasturtium gambelii Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.1
Nemacaulis denudata var. denudata coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Onychomys torridus ramona southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Panoquina errans wandering (=saltmarsh) skipper	IILEP84030	None	None	G4G5	S2	
Passerculus sandwichensis beldingi Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
Penstemon californicus California beardtongue	PDSCR1L110	None	None	G3	S2	1B.2
Pentachaeta aurea ssp. allenii Allen's pentachaeta	PDAST6X021	None	None	G4T1	S1	1B.1
Perognathus longimembris pacificus Pacific pocket mouse	AMAFD01042	Endangered	None	G5T1	S1	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	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
Rallus obsoletus levipes light-footed Ridgway's rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	FP
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Sorex ornatus salicornicus southern California saltmarsh shrew	AMABA01104	None	None	G5T1?	S1	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern California Arroyo Chub/Santa Ana Sucker Stream Southern California Arroyo Chub/Santa Ana Sucker Stream	CARE2330CA	None	None	GNR	SNR	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Dune Scrub Southern Dune Scrub	CTT21330CA	None	None	G1	S1.1	
Southern Foredunes Southern Foredunes	CTT21230CA	None	None	G2	S2.1	
Southern Interior Cypress Forest Southern Interior Cypress Forest	CTT83230CA	None	None	G2	S2.1	
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	
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Suaeda esteroa estuary seablite	PDCHE0P0D0	None	None	G3	S2	1B.2
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Verbesina dissita big-leaved crownbeard	PDAST9R050	Threatened	Threatened	G1G2	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						

Record Count: 125

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

66 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3311778, 3311777, 3311776, 3311768, 3311767, 3311766 3311757 and 3311756;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	4.2	S3?	G4
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2?
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	1B.2	S2	G3G4
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	1B.2	S1S2	G3
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Baccharis malibuensis	Malibu baccharis	Asteraceae	perennial deciduous shrub	Aug	1B.1	S1	G1
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S2	G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	4.2	S4	G4
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S3S4	G3G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2	S2	G3G4T2
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	3	S4	G4
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug	1B.1	S1	G5T1T2
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	1B.2	S1	G4?T1
	San Fernando	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1

Chorizanthe parryi var. fernandina	Valley spineflower						
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	1B.2	S3	G5T3
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)	4.2	S3	G3G4
Comarostaphylis diversifolia ssp. diversifolia	summer holly	Ericaceae	perennial evergreen shrub	Apr-Jun	1B.2	S2	G3T2
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	S4	G4
Dichondra occidentalis	western dichondra	Convolvulaceae	perennial rhizomatous herb	(Jan)Mar-Jul	4.2	S3S4	G3G4
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Dudleya stolonifera	Laguna Beach dudleya	Crassulaceae	perennial stoloniferous herb	May-Jul	1B.1	S1	G1
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	Apr-Sep	1B.1	S1	G4T1
Eryngium aristulatum var. parishii	San Diego button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.1	S1	G5T1
Euphorbia misera	cliff spurge	Euphorbiaceae	perennial shrub	Dec-Aug(Oct)	2B.2	S2	G5
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	4.2	S3	G4
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	1A	SH	G5TH
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree		1B.1	S2	G2
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Isocoma menziesii var. decumbens	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	1B.2	S2	G3G5T2T3
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S4	G4
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	4.2	S4	G5T5
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	1B.2	S2S3	G3
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	Mar-Jul(Aug)	4.2	S4?	G4T4?
Lycium californicum	California box-	Solanaceae	perennial shrub	(Dec)Mar,Jun,Jul,Aug	4.2	S4	G4

	thorn						
Malacothrix saxatilis var. saxatilis	cliff malacothrix	Asteraceae	perennial rhizomatous herb	Mar-Sep	4.2	S4	G5T4
Monardella hypoleuca ssp. intermedia	intermediate monardella	Lamiaceae	perennial rhizomatous herb	Apr-Sep	1B.3	S2?	G4T2?
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul	2B.2	S1S2	G4G5
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2
Nemacaulis denudata var. denudata	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	1B.2	S2	G3G4T2
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul	1B.2	S3	G3
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Penstemon californicus	California beardtongue	Plantaginaceae	perennial herb	May-Jun(Aug)	1B.2	S2	G3
Pentachaeta aurea ssp. allenii	Allen's pentachaeta	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G4T1
Phacelia ramosissima var. austrolitoralis	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	3.2	S3	G5?T3Q
Pickeringia montana var. tomentosa	woolly chaparral-pea	Fabaceae	evergreen shrub	May-Aug	4.3	S3S4	G5T3T4
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug	4.3	S4	G5T4
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Quercus dumosa	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)	1B.1	S3	G3
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	Mar-Jul(Aug)	4.2	S4	G4
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(May)Jul-Oct(Jan)	1B.2	S2	G3
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov(Dec)	1B.2	S2	G2
Verbesina dissita	big-leaved crownbeard	Asteraceae	perennial herb	(Mar)Apr-Jul	1B.1	S1	G1G2

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APPENDIX 5
Special-Status Plant and Wildlife Species
Potential For Occurrence

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
INSECTS & MOLLUSKS				
Crotch bumble bee (*Bombus crotchii*)	None / None		Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum	**Low Potential.** May forage in area, but preferred foraging plants are not present.
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE / None		Chaparral | Coastal scrub | Vernal pool | Wetland	**No Potential.** No suitable habitat at the site.
western tidal-flat tiger beetle (*Cicindela gabbii*)	None / None		Estuary | Mud shore/flats	**No Potential.** No suitable habitat at the site.
sandy beach tiger beetle (*Cicindela hirticollis gravida*)	None / None		Coastal dunes	**No Potential.** No suitable habitat at the site.
western beach tiger beetle (*Cicindela latesignata latesignata*)	None / None		Mud shore/flats	**No Potential.** No suitable habitat at the site.
globose dune beetle (*Coelus globosus*)	None / None		Coastal dunes	**No Potential.** No suitable habitat at the site.
monarch - California overwintering population (*Danaus plexippus* pop. 1)	None / None		Closed-cone coniferous forest	**Low Potential.** Tall Eucalyptus around the site may provide roosting habitat, but the site is not a known roost location, and roosting monarchs were not observed during the surveys.
wandering (=saltmarsh) skipper (*Panoquina errans*)	None / None		Marsh & swamp | Wetland	**No Potential.** No suitable habitat at the site.
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE / None		Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland	**No Potential.** No suitable habitat at the site.
mimic tryonia (=California brackishwater snail) *(Tryonia imitator*)	None / None		Aquatic | Brackish marsh | Estuary | Lagoon | Marsh & swamp | Salt marsh | Wetland	**No Potential.** No suitable habitat at the site.
REPTILES AND AMPHIBIANS				
arroyo toad (*Anaxyrus californicus*)	FE / None		Desert wash | Riparian scrub | Riparian woodland | South coast flowing waters | South coast standing waters	**No Potential.** No suitable habitat at the site.
southern California legless lizard (*Anniella stebbinsi*)	None / None		Broadleaved upland forest | Chaparral | Coastal dunes | Coastal scrub	**No Potential.** No suitable habitat at the site.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
California glossy snake (*Arizona elegans occidentalis*)	None / None		Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	**No Potential.** No suitable habitat at the site.
orange-throated whiptail (*Aspidoscelis hyperythra*)	None / None		Chaparral | Cismontane woodland | Coastal scrub	**No Potential.** No suitable habitat at the site.
coastal whiptail (*Aspidoscelis tigris stejnegeri*)	None / None		Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	**Low Potential.** No habitat linkage to surrounding open space, site is highly disturbed and subject to recurring fuel modification.
red-diamond rattlesnake (*Crotalus ruber*)	None / None		Chaparral | Mojavean desert scrub | Sonoran desert scrub	**No Potential.** No suitable habitat at the site.
western pond turtle (*Emys marmorata*)	None / None		Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland	**No Potential.** No suitable habitat at the site.
northern leopard frog (*Lithobates pipiens*)	None / None		Freshwater marsh | Great Basin flowing waters | Great Basin standing waters | Marsh & swamp | Wetland	**No Potential.** No suitable habitat at the site.
coast horned lizard (*Phrynosoma blainvillii*)	None / None		Chaparral | Cismontane woodland | Coastal bluff scrub | Coastal scrub | Desert wash | Pinyon & juniper woodlands | Riparian scrub | Riparian woodland | Valley & foothill grassland	**No Potential.** No suitable habitat at the site, no connection to suitable habitat.
coast patch-nosed snake (*Salvadora hexalepis virgultea*)	None / None		Coastal scrub, semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	**No potential.** No suitable habitat at the site.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
western spadefoot (*Spea hammondii*)	None / None		Cismontane woodland | Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland	**No Potential.** No suitable habitat at the site.
Coast Range newt (*Taricha torosa*)	None / None			**No Potential.** No suitable habitat at the site.
two-striped gartersnake (*Thamnophis hammondii*)	None / None		Marsh & swamp | Riparian scrub | Riparian woodland | Wetland	**No Potential.** No suitable habitat at the site.
BIRDS				
Cooper's hawk (*Accipiter cooperii*)	None / None		Woodland, chiefly of open, interrupted or marginal type.	**Moderate Potential.** Likely forage in the area, potential to nest in trees during nesting season.
tricolored blackbird (*Agelaius tricolor*)	None / CE		Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	**No Potential.** No suitable habitat at the site.
southern California Rufous-crowned sparrow (*Aimophila ruficeps canescens*)	None / None		Resident in Southern California coastal sage scrub and sparse mixed chaparral.	**No Potential.** No suitable habitat at the site.
grasshopper sparrow (*Ammodramus savannarum*)	None / None		Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	**No Potential.** No suitable habitat at the site.
great blue heron (*Ardea herodias*)	None / None		Colonial nester in tall trees, cliffsides, and sequestered spots on marshes.	**No Potential.** No suitable habitat at the site. May pass through area.
long-eared owl (*Asio otus*)	None / None		Riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses.	**No Potential.** No suitable habitat at the site.
burrowing owl (*Athene cunicularia*)	None / None		Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	**No Potential.** Site is highly disturbed and subject to recurring fuel modification, area size not adequate.
ferruginous hawk (*Buteo regalis*)	None / None		Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	**Low Potential.** May forage in the area.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
Swainson's hawk (*Buteo swainsoni*)	None / CT		Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	**Low Potential.** May forage in the area.
coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	None / None		Southern California coastal sage scrub.	**No Potential.** No suitable habitat at the site.
western snowy plover (*Charadrius alexandrinus nivosus*)	FT / None		Sandy beaches, salt pond levees & shores of large alkali lakes.	**No Potential.** No suitable habitat at the site.
western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT / CE		Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	**No Potential.** No suitable habitat at the site.
yellow rail (*Coturnicops noveboracensis*)	None / None		Summer resident in eastern Sierra Nevada in Mono County.	**No Potential.** No suitable habitat at the site.
white-tailed kite (*Elanus leucurus*)	None / None		Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland.	**Low Potential.** Potentially foraging near the site and surrounding area temporarily and rarely as a migrant, but not nesting.
California horned lark (*Eremophila alpestris actia*)	None / None		Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	**Low Potential.** Site is highly disturbed and subject to recurring fuel modification.
American peregrine falcon (*Falco peregrinus anatum*)	Delisted / Delisted		Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures.	**Low Potential.** May forage in the area.
bald eagle (*Haliaeetus leucocephalus*)	Delisted / CE		Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	**No Potential.** No suitable habitat at the site.
yellow-breasted chat (*Icteria virens*)	None / None		Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses.	**No Potential.** No suitable habitat at the site.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
California black rail (*Laterallus jamaicensis coturniculus*)	None / CT		Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	**No Potential.** No suitable habitat at the site.
osprey (*Pandion haliaetus*)	None / None		Ocean shore, bays, freshwater lakes, and larger streams.	**No Potential.** No suitable habitat at the site.
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	None / CE		Inhabits coastal salt marshes, from Santa Barbara south through San Diego County.	**No Potential.** No suitable habitat at the site.
coastal California gnatcatcher (*Polioptila californica californica*)	FT / None		Obligate, permanent resident of coastal sage scrub below 2500 ft. in Southern California.	**No Potential.** No suitable habitat at the site.
light-footed Ridgway's rail (*Rallis obsoletus levipes*)	FE / CE		Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation.	**No Potential.** No suitable habitat at the site.
bank swallow (*Riparia riparia*)	None / CT		Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	**No Potential.** No suitable habitat at the site.
yellow warbler (*Setophaga petechia*)	None / None		Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	**Present.** Observed during August 2015 survey. Would not nest at site.
California least tern (*Sternula antillarum browni*)	FE / CE		Nests along the coast from San Francisco Bay south to northern Baja California.	**No Potential.** No suitable habitat at the site.
least Bell's vireo (*Vireo bellii pusillus*)	FE / CE		Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	**No Potential.** No suitable habitat at the site.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
MAMMALS				
pallid bat (*Antrozous pallidus*)	None / None		Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	**No Potential.** No preferred habitat within survey area.
northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	None / None		Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County.	**Low Potential.** Site is highly disturbed and subject to recurring fuel modification.
Mexican long-tongued bat (*Choeronycteris mexicana*)	None / None		Occasionally found in San Diego County, which is on the periphery of their range.	**No Potential.** Rarely seen north of San Diego County. No preferred habitat within survey area.
western mastiff bat (*Eumops perotis californicus*)	None / None		Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	**No potential.** No preferred habitat within survey area.
hoary bat (*Lasiurus cinereus*)	None / None		Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding.	**Moderate Potential. Potential to roost temporarily in trees on-site.** Have been known to roost in trees in urban areas adjacent to clearings. Not observed during any surveys.
Yuma motes (*Myotis yumanensis*)	None / None		Optimal habitats are open forests and woodlands with sources of water over which to feed.	**No Potential.** No bodies of water in close proximity. No preferred habitat within survey area.
San Diego desert woodrat (*Neotoma lepida intermedia*)	None / None		Coastal scrub of Southern California from San Diego County to San Luis Obispo County.	**No Potential.** No suitable habitat at the site.
big free-tailed bat (*Nyctinomops macrotis*)	None / None		Low-lying arid areas in Southern California.	**No potential.** No preferred habitat within survey area.
southern grasshopper mouse (*Onychomys torridus ramona*)	None / None		Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	**Low Potential.** Site is highly disturbed and subject to recurring fuel modification.
Pacific pocket mouse (*Perognathus longimembris pacificus*)	FE / None		Inhabits the narrow coastal plains from the Mexican border north to Los Angeles County.	**No Potential.** No suitable habitat at the site.

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
southern California saltmarsh shrew (*Sorex ornatus salicornicus*)	None / None		Coastal marshes in Los Angeles, Orange and Ventura counties.	**No Potential.** No suitable habitat at the site.
American badger (*Taxidea taxus*)	None / None		Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	**No Potential.** No suitable habitat at the site. No linkage to surrounding habitat.
PLANTS				
chaparral sand-verbena (*Abronia villosa* var. *aurita*)	None / None	1B.1	Chaparral, Coastal scrub, Desert dunes	**No Potential.** Perennial herb not observed during surveys. No record of any observations near survey area.
aphanisma (*Aphanisma blitoides*)	None / None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub	**Presumed absent.** Annual herb not observed, survey out of season, but habitat is not suitable for the species.
Braunton's milk-vetch (*Astragalus brauntonii*)	FE / None	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland	**No Potential.** Perennial herb not observed during surveys. No record of any observations near survey area.
Coulter's saltbush (*Atriplex coulteri*)	None / None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland	**No Potential.** Perennial herb not observed during surveys.
South Coast saltscale (*Atriplex pacifica*)	None / None	1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas	**Presumed absent.** Annual herb not observed, survey out of season, but habitat is not suitable for the species. No record of any observations near survey area.
Parish's brittlescale (*Atriplex parishii*)	None / None	1B.1	Chenopod scrub, Playas, Vernal pools	**No Potential.** No suitable habitat at the site.
Davidson's saltscale (*Atriplex serenana var. davidsonii*)	None / None	1B.2	Coastal bluff scrub, Coastal scrub	**Presumed absent.** Annual herb not observed, survey out of season, but habitat is not suitable for the species.
Malibu baccharis (*Baccharis malibuensis*)	None / None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	**No Potential.** Perennial herb not observed during surveys. No record of any observations near survey area.
thread-leaved brodiaea (*Brodiaea filifolia*)	FT / CE	1B.1	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas,	**Low Potential.** Perennial bulb, but only can be observed seasonally, not

Common Name (Scientific Name)	Status (Federal / State)	CNPS Status	Primary Habitat Associations	Status on Site / Potential to Occur
			Valley and foothill grassland, Vernal pools	observed during surveys. Records indicate that most observations are to the southeast of the survey area, though some have been made to the north and relatively nearby to the southeast. Survey area is highly disturbed.
intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)	None / None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	**Low Potential.** Perennial bulb, seasonal observability, not observed during surveys. Records indicate that most observations are to the east and further inland. Survey area is highly disturbed.
Lewis' evening-primrose (*Camissoniopsis lewisii*)	None / None	3	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland	**Low Potential.** Perennial bulb, seasonal observability, not observed during surveys. Records indicate few observations within the cities surrounding the survey area, though the area in general is within the range of observation patterns. Survey area is highly disturbed.
southern tarplant (*Centromadia parryi ssp. australis*)	None / None	1B.1	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools	**Present.** Five individuals observed during August 2015 survey.
Orcutt's pincushion (*Chaenactis glabriuscula var. orcuttiana*)	None / None	1B.1	Coastal bluff scrub (sandy), Coastal dunes	**No Potential.** No suitable habitat at the site.
salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*)	FE / CE	1B.2	Coastal dunes, Marshes and swamps (coastal salt)	**No Potential.** No suitable habitat at the site.
San Fernando Valley spineflower (*Chorizanthe parry*i var. *fernandina*)	FC / CE	1B.1	Coastal scrub (sandy), Valley and foothill grassland	**No Potential.** No suitable habitat at site. No nearby observation records.

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long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	None / None	1B.2	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools	**No potential.** Not observed during surveys. Survey area outside species range.
summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	None / None	1B.2	Chaparral, Cismontane woodland	**No Potential.** No suitable habitat at the site.
slender-horned spineflower (*Dodecahema leptoceras*)	FE / CE	1B.1	Chaparral, Cismontane woodland, Coastal scrub (alluvial fan)	**No Potential.** No suitable habitat at site.
many-stemmed dudleya (*Dudleya multicaulis*)	None / None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland	**Low Potential.** Nearby observation records exist, although perennial the leaves that wither in summer. Not observed during surveys.
Laguna Beach dudleya (*Dudleya stolonifera*)	FT / CT	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	**No Potential.** Not observed during surveys. Survey area outside of species range.
Santa Ana River woolly star (*Eriastrum densifolium* ssp. *sanctorum*)	FE / CE	1B.1	Chaparral, Coastal scrub (alluvial fan)	**No Potential.** Not observed during surveys. Survey area outside of species range.
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	FE / CE	1B.1	Coastal scrub, Valley and foothill grassland, Vernal pools	**Presumed absent.** Not observed during surveys. Few records in region of survey area.
cliff spurge (*Euphorbia misera*)	None / None	2B.2	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub	**No Potential.** Not observed during surveys. No suitable habitat within survey area.
Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*)	None / None	1A	Marshes and swamps (coastal salt and freshwater)	**No Potential.** No suitable habitat at the site.
Tecate cypress (*Hesperocyparis forbesii*)	None / None	1B.1	Closed-cone coniferous forest, Chaparral	**No Potential.** Tree not observed during surveys.
vernal barley (*Hordeum intercedens*)	None / None	3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools	**Low Potential.** Annual herb not observed, survey out of season, observation records indicate that the species has been documented nearby. Survey area is highly disturbed.

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mesa horkelia *(Horkelia cuneata* var. *puberula*)	None / None	1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub	**Presumed absent.** Perennial herb not observed during surveys. Very few records of observations of this species in the area.
decumbent goldenbush *(Isocoma menziesii* var. *decumbens*)	None / None	1B.2	Chaparral, Coastal scrub (sandy, often in disturbed areas)	**Presumed absent.** Perennial herb, not observed during surveys. Rarely seen and only on the coast in this region.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	None / None	1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools	**No Potential.** No suitable habitat at the site.
heart-leaved pitcher sage (*Lepechinia cardiophylla*)	None / None	1B.2	Closed-cone coniferous forest, Chaparral, Cismontane woodland	**No Potential.** No suitable habitat at the site.
intermediate monardella (*Monardella hypoleuca* ssp. *intermedia*)	None / None	1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest (sometimes)	**No Potential.** No suitable habitat at the site.
mud nama (*Nama stenocarpa*)	None / None	2B.2	Marshes and swamps (lake margins, riverbanks)	**No Potential.** No suitable habitat at the site.
Gambel's water cress (*Nasturtium gambelii*)	FE / CT	1B.1	Marshes and swamps (freshwater or brackish)	**No Potential.** No suitable habitat at the site.
prostrate vernal pool navarretia (*Navarretia prostrata*)	None / None	1B.1	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools	**Presumed absent.** Annual herb not observed, survey out of season, but habitat is not suitable for the species.
coast woolly-heads (*Nemacaulis denudata var. denudata*)	None / None	1B.2	Coastal dunes	**No Potential.** No suitable habitat at the site.
chaparral nolina (*Nolina cismontana*)	None / None	1B.2	Chaparral, Coastal scrub	**No Potential.** No suitable habitat at site
California Orcutt grass (*Orcuttia californica*)	FE / CE	1B.1	Vernal pools	**No Potential.** No suitable habitat at the site.
California beardtongue (*Penstemon californicus*)	None / None	1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland	**No Potential.** No suitable habitat at the site.

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Allen's pentachaeta (*Pentachaeta aurea* ssp. *allenii*)	None / None	1B.1	Coastal scrub (openings), Valley and foothill grassland	**Presumed absent.** Annual herb not observed, survey out of season, but habitat is not suitable for the species. Survey area is highly disturbed.
south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*)	None / None	3.2	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt)	**Presumed absent.** Not observed during surveys.
white rabbit-tobacco (*Pseudognaphalium leucocephalum*)	None / None	2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	**Presumed absent.** Not observed during surveys.
Nuttall's scrub oak (*Quercus dumosa*)	None / None	1B.1	Closed-cone coniferous forest, Chaparral, Coastal scrub	**Presumed absent.** Perennial shrub not observed during surveys.
Sanford's arrowhead (*Sagittaria sanfordii*)	None / None	1B.2	Marshes and swamps (assorted shallow freshwater)	**No Potential.** No suitable habitat at the site.
chaparral ragwort (*Senecio aphanactis*)	None / None	2B.2	Chaparral, Cismontane woodland, Coastal scrub	**Low Potential.** Annual herb not observed, survey out of season, observation records indicate that the species has been documented nearby. Survey area is highly disturbed.
salt spring checkerbloom (*Sidalcea neomexicana*)	None / None	2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas	**No Potential.** Annual herb not observed, survey out of season, but rarely documented in this region. Survey area is highly disturbed.
estuary seablite (*Suaeda esteroa*)	None / None	1B.2	Marshes and swamps (coastal salt)	**No Potential.** No suitable habitat at the site.
San Bernardino aster (*Symphyotrichum defoliatum*)	None / None	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Valley and foothill grassland (vernally mesic)	**No Potential.** Annual herb not observed, survey out of season, but rarely documented in this region. Survey area is highly disturbed
big-leaved crownbeard (*Verbesina dissita*)	FT / CT	1B.1	Chaparral (maritime), Coastal scrub	**No Potential.** Perennial herb not observed, survey out of season, survey area outside of range of species.