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Rolf G. Steeve, Jr.
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Subject**:** **Biological Resources Letter Report for the Steeve Project**
APN: 234-20-66-00; Prepared for the County of San Diego;
PDS2015-TPM-21225

Dear Mr. Steeve:

REC Consultants, Inc. has prepared this letter report to address potential impacts of a residential development to biological resources on an approximately 4.62-acre disturbed parcel located at the southeastern corner of Bear Valley Parkway and Birch Avenue in unincorporated San Diego County.

SUMMARY

The Steeve TPM Project will subdivide APN 234-120-66-00 into four residential subdivision lots. REC Consultants, Inc. surveyed this parcel to document biological resources on the site. This parcel currently consists of disturbed farmland containing a disturbed drainage swale. The Project would not result in significant impacts to sensitive biological resources, and mitigation would not be required by the County of San Diego.

INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

Project Description

The Steeve Tentative Parcel Map (TPM) project (Project) proposes a four-lot residential subdivision on an approximately 4.62-acre parcel (APN 234-120-66-00) in the North County Metropolitan Subregion area (County of San Diego 2011). Off-site impacts are limited to a 0.002-acre culvert outlet.

Project Location and Setting

The Project site (Site) is located immediately east of Bear Valley Parkway and south of Birch Avenue, approximately 2.65 miles east of the Escondido Freeway (Interstate 15), southeast of the City of Escondido, in unincorporated San Diego County (**Figures 1** and **2**). The Site is surrounded by residential development, roads, and fallow farmland (**Figure 3**).

Terrain on-site is relatively flat and ranges from 679 ft (207 meters) above mean sea level (AMSL) in the western portion of the Site to 700 ft (213 meters) AMSL in the east. A disturbed drainage swale runs north-south along the western edge of the Site. According to the Web Soil Survey (USDA 2015),

soil on the Project site is comprised of a single USDA soils map unit: Ramona sandy loam, 2 to 5% slopes (RaB). The Ramona soil series consists of well-drained, very deep sandy loams that have a sandy clay loam subsoil, formed in granitic alluvium and located on terraces and alluvial fans. RaB is a gently sloping soil with slow runoff, a slight erosion hazard, and moderately slow permeability (USDA 1973). No riparian soil map units are mapped under or along the drainage swale.

Mr. Rolf Steeve, whose family has farmed the land, was consulted regarding the agricultural history of the site and provided the following information. The Site has been used for agriculture since at least 1924. The parcel was actively farmed through in or about 2004. From in or about 2004 through in or about 2012, fruit from the remaining fruit trees was harvested. During this time, the then-existing farming operation was reduced and ultimately discontinued. Historical aerials of the parcel ranging from 1946 to 2012 corroborate this account (NETR 2009). These trees were subsequently removed and the main water line to the parcel was severed as a result of the widening of Bear Valley Parkway by the County. As a result, irrigation of the Site did not resume.

The Project's environmental setting was studied through a field survey and records review. Records review consisted of a search and review of CNDDB records of rare and special-status plant and animal species within the Project USGS 7.5' quadrangle (Escondido) and surrounding quadrangles (Del Mar, Poway, Rancho Santa Fe, Rodriguez Mountain, San Marcos, San Pasqual, San Vicente Reservoir and Valley Center), recent and historical aerial photographs of the site and surrounding areas, recent and historical USGS topographic maps, and soil maps and descriptions from the Soil Survey (USDA 1973, 2015). Species included in the list of sensitive species provided by the County were also evaluated for potential to occur on-site. One field survey was conducted, as summarized in **Table 1**, below.

Table 1. Surveys Conducted on the Project Site

Date	Time	Temp (°F)	Sky	Wind (MPH)	Survey Type	Personnel
8/25/2015	8:30 AM - 9:30 AM	72-73	Overcast to cloudy	0-1	General, wetland/waters assessment	Catherine MacGregor

Biological resources found on-site were limited to four habitats/land cover categories and common suburban vegetation and wildlife, described in the following section. Scientific nomenclature and common names for animal species in this letter report follow American Ornithological Union (AOU 2012) for birds, Center for North American Herpetology (CNAH 2014) for reptiles and amphibians, Baker et al. (2003) for mammals, and Powell and Hogue (1979) for insects, as well as the San Diego Natural History Museum butterfly, spider, amphibian, reptile, bird and mammal checklists for subspecies (SDNHM 2002, 2005, and undated). Taxonomy and scientific nomenclature for plants follow the Jepson Manual, second edition (Baldwin et al. 2012) and common names are primarily from Rebman and Simpson (2006), with some rare plant common names from the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2014).

HABITATS / VEGETATION COMMUNITIES

During REC's survey, four habitats or land cover categories were observed on-site: developed land, disturbed land, non-native vegetation, and non-wetland Waters of the US. These are shown in **Figure 4** and discussed below. All plants and animals observed on-site are included in **Attachments A** and **B**, respectively.

Developed Land (County Habitat Code 12000) occupies approximately 0.08 acre on-site. This land cover category consists of "Areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that require irrigation. Areas where no natural lands is evident due to a large amount of debris or other materials being placed upon it may also be considered urban/developed (e.g. car recycling plant, quarry)." Developed land is typically unvegetated or landscaped with a variety of ornamental (usually non-native) plants. (Oberbauer et al. 2008)

Developed land on-site consists of the southeastern shoulder of the recently widened Bear Valley Parkway. No plants or animals were observed within this land cover category.

Disturbed Land (County Habitat Code 11300) occupies approximately 4.31 acres on-site. The County of San Diego describes disturbed habitat as "Areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association, but continues to retain a soil substrate. Typically vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or shows signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Examples of disturbed habitat include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e. dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites." (Oberbauer et al. 2008) Additional habitat identification information provided in the County's Report Format and Content Requirements (County of San Diego 2010a) specifies that "Disturbed land includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance and compaction from previously legal human activity; or where the vegetative cover is greater than 10 percent, there is soil surface disturbance and compaction, and the presence of building foundations and debris…resulting from legal activities (as opposed to illegal dumping). Examples include recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites."

On-site disturbed land consists of disked, previously farmed soil with very little plant cover. The sparse weeds observed within the former farmland, such as common purslane (*Portulaca oleracea*) and white tumbleweed (*Amaranthus albus*), are characteristic of abandoned farm fields. Other species observed in the former farmland were puncture vine (*Tribulus terrestris*), spotted spurge (*Euphorbia maculata*), and asthmaweed (*Erigeron sumatrensis*). Only one native species was observed in this area: prostrate amaranth (*Amaranthus blitoides*). The only animals detected in disturbed habitat on-site were non-native snails and Botta's pocket gopher (*Thomomys bottae*) mounds.

Non-native Vegetation (County Habitat Code 11000) occupies approximately 0.21 acre on-site. Non-native vegetation is "Characterized by predominantly non-native species introduced and established through human action. These areas are not artificially irrigated, but receive water from precipitation or runoff." (Oberbauer et al. 2008)

Non-native vegetation on-site consists of ornamental trees and shrubs such as Peruvian pepper (*Schinus molle*), pomegranate (*Punica granatum*) and tipu tree (*Tipuana tipu*) bordering the Site along the eastern boundary. Several young coast live oaks were scattered among those ornamentals, but were not growing together in an aggregation that could be considered coast live oak woodland. The only animals observed in non-native vegetation on-site were bushtits (*Psaltriparus minimus*), California towhee (*Melozone crissalis*), northern mockingbird (*Mimus polyglottos*) and desert cottontail (*Sylvilagus audubonii*).

Non-wetland Waters of the US (No County Habitat Code) occupies approximately 0.02 acre on-site within the channel of the drainage swale. This habitat type does not have a Holland/Oberbauer code, but is included in "Table 5: Habitat Mitigation Ratios" of the County's "Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources," which applies to mitigation for impacts outside of approved MSCP Plan areas (County of San Diego 2010b).

This designation applies to the incised bottom channel of the drainage swale (up to the Ordinary High Water Mark [OHWM]), which was almost entirely bare of vegetation. Based on review of aerial photographs, USGS topographic maps, and field observations, the channel appears to be fed only by Birch Road surface water runoff, which is directed under the road and onto the Site through a culvert. Historical aerial photographs from 1947 and 1953 (NETR 2016) show that this swale was originally much smaller but was widened between these years in association with agricultural operations. The swale was also deepened and widened in 1970 to improve drainage from the fields on either side, which were irrigated with an above-ground system that led to accumulation of salts and other minerals (Steeve pers. comm.). It should be noted that Bear Valley Parkway widening construction activity has included dumping of water from water line testing into the swale, and more specifically into the non-wetland Waters of the US. This artificial flow may have been responsible for the presence of an OHWM.

SPECIAL-STATUS SPECIES

For the purposes of this report, a sensitive or special-status plant or animal is any taxon (species, subspecies, or variety) that is officially listed by California or the federal government as Endangered, Threatened, or Rare, or a candidate for one of those listings; classified as Fully Protected, Species of Special Concern, or Watch List animal species by the California Department of Fish and Wildlife (CDFW); included in California Rare Plant Ranks (CRPR) 1 through 4; or included in the County of San Diego Sensitive Plant Lists A through D or Sensitive Animals Groups 1 or 2.

Lists of special-status plants and animals with the potential to occur on the Project site were generated from the CNDDB RareFind5 and BIOS databases (CNDDB 2015) and the SanBIOS database (County of San Diego 2011). The resulting lists include any special-status species documented within the Project site's USGS 7.5' quadrangle or surrounding quadrangles. **Attachment C** provides information on these special-status plant taxa, as well as an evaluation of the potential for each to occur on-site, based on CNDDB and SanBIOS search results, the CNPS Inventory of Rare and Endangered Plants (on-line version, 2015), Reiser's *Rare Plants of San Diego County* (2001) and field observations. **Attachment D** provides information on these animal taxa, and an evaluation of the potential for each to occur on-site, based on species requirements, CNDDB and SanBIOS search results, and field observations.

Special-status species observed on or adjacent to the Project site
No special-status plants or animals were observed on-site.

Special-status species with moderate to high potential to occur on or adjacent to the site
Based on CNDDB and SanBIOS records searches and evaluation of current site conditions, no special-status species have moderate to high potential to occur on or adjacent to the Site.

Raptor foraging and migratory birds
Raptors are protected under California Fish and Game Code Section 3503.5, which specifically protects all birds in the orders Falconiformes or Strigiformes (raptors, including owls and turkey vultures). It is unlawful to take, possess or destroy any such raptors or their nests and eggs except as otherwise provided in the Fish and Game Code. The County of San Diego (2010b) defines raptor foraging habitat as "Land that is a minimum of 5 acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." Although the site does support a small number of burrowing mammals (Botta's pocket gopher), it is less than 5 acres in size and is surrounded by development; therefore, it does not qualify as raptor foraging habitat.

California Fish and Game Code Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant to the Code, and the federal Migratory Bird Treaty Act prohibits the killing or transport of native migratory birds, or any part, nest, or egg or any such bird unless allowed by another regulation (such as for "game" birds), Therefore, all native, non-game birds on the Project site, and the nests and eggs of all native non-game birds, are protected during the nesting season even if these birds are not special-status or otherwise protected. No sign of bird nesting was observed on-site, but the non-native trees on-site have the potential to serve as nesting habitat.

Large mammal use
No evidence of use by large mammals including mule deer (*Odocoileus hemionus*), such as scat or deer laydown areas, was found on-site. The site is surrounded by development, is disturbed and exposed, and has no connection to natural habitats that could support large mammals.

JURISDICTIONAL WETLANDS AND WATERWAYS

The bottom channel in the on-site drainage swale had a visible Ordinary High Water Mark (OHWM) and banks during REC's site visit (although the apparent OHWM may have been formed by channeling of water into the swale during Bear Valley Parkway construction). The swale drains to a tributary to Lake Hodges. It would be considered a jurisdictional waters/streambed by both federal and state agencies, as described below.

United States Army Corps of Engineers
The United States Army Corps of Engineers (USACE) regulates impacts to wetlands and other Waters of the US pursuant to Section 404 of the Clean Water Act. This agency claims jurisdiction over Waters of the US, including wetlands in or adjacent to Waters of the US. Wetlands and other Waters of the US are delineated according to the USACE 1987 *Wetlands Delineation Manual* (with on-line updates), the USACE *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (2008), the federal "Definition of Waters of the United States" (33 CFR Part 328), and the *Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the*

United States (2010). Impacts to wetlands and Waters of the US generally require a permit from the USACE, and mitigation may be required.

USACE jurisdiction over the drainage swale on-site, as a Waters of the US, would consist of the incised bottom channel up to the OHWM. The potential Waters of the US in the bottom of the swale average approximately 2.5 feet wide. No evidence of hydric soils or a predominance of hydrophytic vegetation was observed, and the swale did not warrant use of any wetland delineation soil pits. The extent of Waters of the US is shown in **Figure 4**. USACE jurisdiction over the non-wetland Waters of the US covers approximately 0.02 acre on-site.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake under Sections 1601 and 1603 of the Fish and Game Code. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW does not typically claim jurisdiction over small isolated waters such as vernal pools or detention basins. Impacts to CDFW-jurisdictional streams may be permitted with a Lake and Streambed Alteration Agreement and habitat mitigation after consultation with the agency and project approval. CDFW streambed jurisdiction typically extends from the channel bottom to either the top of bank or outer limit of riparian vegetation on natural banks, whichever is greater.

At the Project site, the upper limit of CDFW jurisdiction was determined by REC with comments from Mr. Steeve's independent peer review consultant, based on review of recent and historical aerial photographs, agricultural history, and observed on-site topography. Because the swale was deepened and widened for agricultural operations, the current topographic transition from flat to sloping ground does not represent a true top-of-bank, and riparian vegetation is absent from the swale. Therefore, the CDFW jurisdiction was estimated to be the same as the USACE jurisdiction (0.02 acre), which covers the area where water flows. The extent of CDFW jurisdiction is also shown in **Figure 4**.

State of California

The State of California also protects waters under the Porter-Cologne Water Quality Control Act, administered by the State Water Quality Control Board (SWQCB). The SWQCB and its regional Water Boards are responsible, under the Clean Water Act, for issuing 401 certifications of State water quality control compliance for 404 permits, and/or for Waste Discharge Requirements (WDR). For waters protected by the State under the Clean Water Act, they are the same as the waters delineated for the USACE as Waters of the US; waters protected as Waters of the State may have limits corresponding to Waters of the US or to CDFW jurisdictional limits as described below. In addition, after the SWANCC and Rapanos rulings reduced jurisdictional reach of the USACE, the State passed Resolution 2008-0026, which effectively extended the applied jurisdiction of the SWQCB by (a) mandating protection of wetlands and riparian areas, and (b) extending regulation from just waste discharge to also include dredge and fill activities. The State of California takes the position that wetlands as defined in accordance with the federal definition for the Clean Water Act are also Waters of the State, and therefore under jurisdiction of the Water Boards (SWRCB 2013), but the State also includes non-vegetated areas that satisfy the hydrology and substrate criteria, such as tidal flats, that would be excluded under the USACE definition. Within Porter-Cologne, Water Code section 13260

requires "a person discharging waste, or proposing to discharge waste", to file an application for a waste discharge requirement (WDR). (Water Code § 13260(a)(1)). At the Project site, the upper limit of RWQCB jurisdiction would be identical to the USACE and CDFW limit.

County of San Diego

The on-site drainage swale and channel are not RPO wetland according to the County Resource Protection Ordinance (RPO), Section 86.602(q)(1) (County of San Diego 2007). In order to be considered an RPO wetland, at least one of the following statements must be true:

a) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
b) The substratum is predominantly undrained hydric soil; or
c) An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

The drainage swale and bottom channel (a) do not support a predominance of hydrophytic plant species, (b) do not have a hydric soil substratum, and (c) although the channel may be an ephemeral stream, it has a soil bottom rather than a predominantly non-soil substratum. Therefore, the swale and bottom channel are not RPO wetland.

Furthermore, the drainage swale and channel would not be considered a RPO wetland because they are excluded by the provisions of RPO Section 86.602(q)(2)(bb), which states that the following shall not be considered a wetland:

> Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Land Use:
>
> (i) Have negligible biological function or value as wetlands even if restored to the extent feasible; and,
>
> (ii) Do not have substantial or locally important populations of wetland dependent sensitive species.

The drainage swale and channel on-site have been degraded by over 70 years of legal farming, to the point that they have negligible biological function and value as a wetlands even if restored to the extent feasible. In this case, their value, even if restored, would be negligible due to apparent absence of hydrology adequate to form hydric soils, develop a sand/gravel non-soil substrate, or scour the swale or channel to a level of exposed rock. In addition, the drainage swale on-site appears to be the upper limit of a drainage system, which would naturally have little riparian or wetland habitat to restore. The swale does not appear to have, or be capable of supporting, substantial or locally important populations of wetland dependent sensitive species.

In conclusion, the on-site drainage swale and channel do not qualify as RPO wetland based on physical attributes and agricultural history.

OTHER UNIQUE FEATURES/RESOURCES

The Project site does not include any uncommon soils, rock outcrops, steep slopes or any other unique feature or resource. The site is very unlikely to serve as a wildlife corridor or linkage because it is entirely surrounded by development and the nearest Pre-Approved Mitigation Area (PAMA) is an isolated patch of habitat approximately 0.85 mile south of the Site.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Impacts to biological resources can be categorized as direct, indirect, or cumulative. Direct impacts are an immediate result of Project implementation, and generally include loss of vegetation, special-status habitats, and plant and animal populations; activity-related wildlife mortality; loss of foraging, nesting, breeding, or burrowing habitat; and fragmentation of wildlife corridors. Indirect impacts occur secondarily and may be less noticeable. Examples include introduction of non-native species which may outcompete and displace native vegetation; damage from increased human encroachment into the natural environment; off-road vehicle use, which impacts special-status plant and animal species; harassment and/or collection of wildlife and plant species; wildlife predation by domestic animals that intrude into open space areas; and increased wildlife mortality along roads. Project direct and indirect impacts to biological resources are discussed in the following sections.

Direct Impacts

The Project's direct impacts to biological resources are shown in **Figure 5**, and habitat impacts resulting from implementation of the Project are summarized in **Table 2**. Direct grading impacts consist of grading of disturbed land for house pads, and placement of a culverted residential driveway across the drainage swale. Impact-neutral acreage consists of Fuel Management Zones (FMZs) that require no clearing because they overlap unvegetated land, unvegetated disturbed land that is outside both the grading footprint and FMZs, and developed land along Bear Valley Parkway that will not be impacted by this Project.

Table 2. Habitat/Vegetation Communities and Impacts

Vegetation Community	Existing On-site (acres)	Grading Impacts On-site (acres)	Impacts Off-site (acres)	Total Impacts (acres)	Impact-neutral On-site* (acres)	Mitiga-tion Ratio	Mitigation Required (acres)
Developed Land (County Habitat Code 12000)	0.08	0.01	-	**0.01**	0.07	-	-
Disturbed Land (County Habitat Code 11300)	4.31	3.64	0.002	**3.64**	0.67	-	-
Non-native Vegetation (County Habitat Code 11000)	0.21	0.21	-	**0.21**	-	-	-
Non-wetland Waters of the US (No County Habitat Code)	0.020	.003	0.000	**0.003**	0.017	1:1	**0.003**
TOTAL	**4.62**	**3.86**	**0.002**	**3.86**	**0.76**		**0.003**

* FMZs, non-impacted disturbed land, and developed land along Bear Valley Parkway (see following paragraph)

Direct grading impacts consist of grading of disturbed land for house pads, and placement of a culverted residential driveway across the non-wetland Waters of the US drainage swale channel.

Impact-neutral acreage consists of Fuel Management Zones (FMZs) that require no grading and no clearing because they are flat and unvegetated, unvegetated disturbed land that is outside both the grading footprint and FMZs, non-wetland Waters of the US preserved in place through project design, and developed land along Bear Valley Parkway that will not be impacted by this Project.

Impacts to developed land, disturbed land and non-native vegetation are not considered significant under the County of San Diego's CEQA-based Significance Guidelines (County of San Diego 2010b) and will not require mitigation.

The impact to 0.003 acre of non-wetland Waters of the US would not be considered significant under the County of San Diego's CEQA-based Significance Guidelines. Although grading, placement of culverts, and any disturbance of the substratum "within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers, CDFG and the County of San Diego" could be a significant impact under the County's CEQA-based Significance Guideline 4.2 (County of San Diego 2010b, page 15), the Project's residential road crossing impact would not be significant because it is too small to reach the CEQA threshold of being a "substantial adverse effect."

The impacts to non-wetland Waters of the US and CDFW jurisdictional streambed would require notification, permitting, and possibly mitigation, through CDFW, USACE, and RWQCB.

The Project will not directly result in significant impacts to any special-status species, wildlife corridors, linkages, wildlife nursery sites, or other unique features.

Indirect Impacts

The Project site is located within an area developed with residential land use and is adjacent to a road, and has no direct impacts to natural habitat, wildlife, special-status plants or animals, or any wildlife corridors, linkages, or wildlife nursery sites. The Project will protect in place the on-site drainage swale, except where the single residential driveway crossing is necessary to access the Site. Because the drainage swale itself and the surrounding uplands are not vegetated, and the Project would be subject to standard water quality protection regulations, no indirect impacts to the drainage swale are anticipated. Potential indirect impacts to water quality and air quality in the Project area will be protected by design features such as on-site bio-retention basins, standard Best Management Practices (BMPs) and Storm Water Pollution Prevention Plan (SWPPP) requirements.

Proposed mitigation

The proposed Project would result in no County/CEQA significant impacts to any habitat onsite. Therefore, the County would not require biological mitigation.

Permits from USACE, CDFW, and/or RWQCB could require mitigation. Enhancement could provide this mitigation, and could include planting of appropriate native vegetation on the slopes above OHWM at an elevation to avoid interference with storm water flow. It could also include planting of native or otherwise suitable landscaping on the flat land above the banks, to provide a buffer to the channel and swale. Details of this enhancement would be determined in consultation with the permitting agencies.

Avoidance measures

The Project would incorporate avoidance measures to prevent additional impacts, such as:

- If native or naturalized habitat is present on-site at the time of grading, all clearing and grubbing of vegetation and/or grading will occur outside the avian breeding season (February 1 to September 15, or sooner if a qualified biologist demonstrates to the satisfaction of the wildlife agencies that all nesting is complete).
- If construction (other than vegetation clearing and grubbing) must occur during the breeding season, pre-construction surveys should be performed by a qualified biologist within 10 calendar days prior to the start of construction to determine the presence or absence of nesting birds within 300 ft of the impact area. If nesting birds are detected, the County and Wildlife Agencies should be contacted to discuss the potential impact minimization measures to be implemented.
- Project-related landscaping shall not include exotic plant species that may be invasive to native habitats. Invasive exotic plant species not to be used include those listed on the California Invasive Plant Council's Invasive Plant Inventory.
- BMPs and the SWPPP will specifically include mandatory measures to prevent any movement of water, soils, or any material into the non-wetland Waters of the US, and from the Site into off-site areas.

CUMULATIVE IMPACTS

Cumulative impacts occur as a result of ongoing direct and indirect impacts for unrelated projects within a geographic area, and are assessed on a regional basis to determine the overall effect of numerous activities on biological resources or a special-status resource over a larger area. However, because this Project is small, surrounded by developed land and will not result in direct impacts to biological resources, cumulative impacts for the Project can be determined to be below a level of significance even without a review of other projects in the area.

CONCLUSION

This concludes REC's biological letter report for the Steeve TPM Project. Please do not hesitate to contact REC with any questions.

Sincerely,

Elyssa Robertson
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Senior Biologist and Botanist

PREPARERS

This report has been prepared by REC Consultants, Inc. staff:
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ATTACHMENTS

Figure 1. Regional Location Map
Figure 2. Vicinity Map
Figure 3. Aerial Photograph of Site and Vicinity
Figure 4 Biological Resources
Figure 5. Project Impacts

Attachment A. Plants Observed on the Steeve TPM Project Site
Attachment B. Animals Observed on the Steeve TPM Project Site
Attachment C. Special-Status Plants with the Potential to Occur on the Steeve TPM Project Site
Attachment D. Special-Status Animals with the Potential to Occur on the Steeve TPM Project Site

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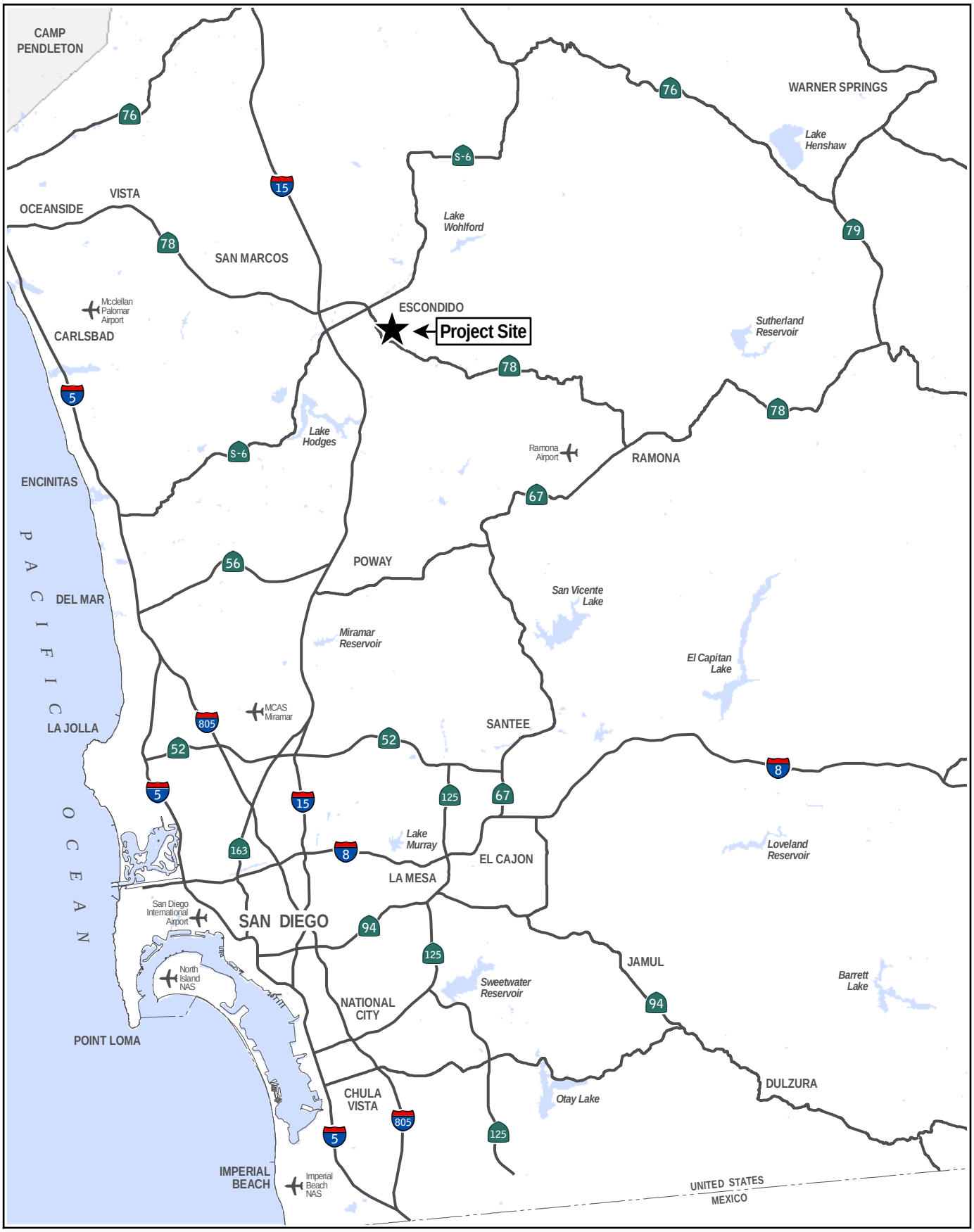


Regional Location

Miles
0 3 6

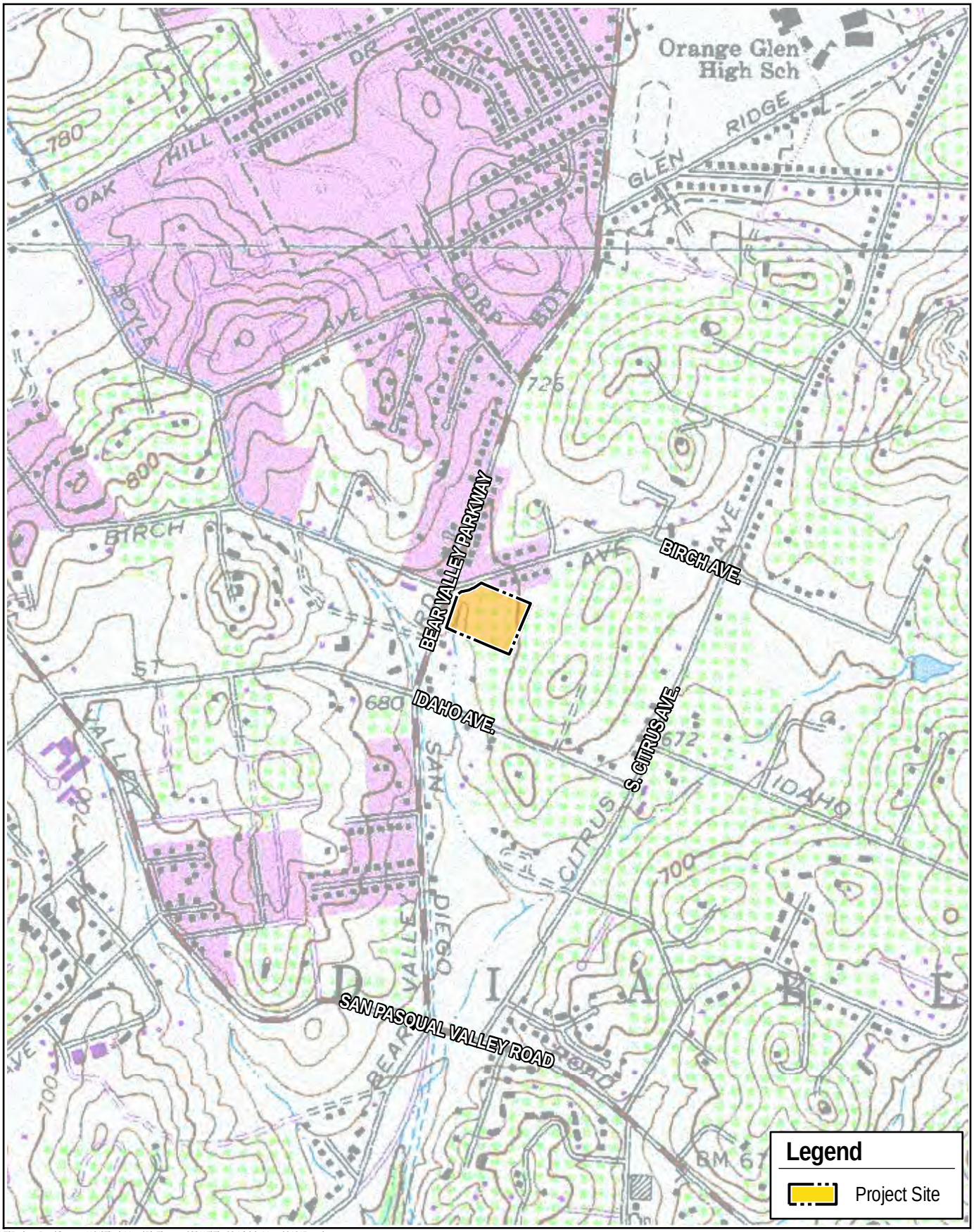
FIGURE 1

REC Consultants, Inc.

STEEVE TPM

Source: SANGIS GIS Data, 2011.

January 2016



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R·E·C Consultants, Inc.

Vicinity Map

STEEVE TPM

0 500 1,000 Feet

Source: USGS DRG Mosaic

FIGURE 2

January 2016

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R·E·C Consultants, Inc.

Aerial Photograph of Site and Vicinity

0 200 400 Feet

FIGURE 3

STEEVE TPM

Source: Esri Basemap

January 2016

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Biological Resources

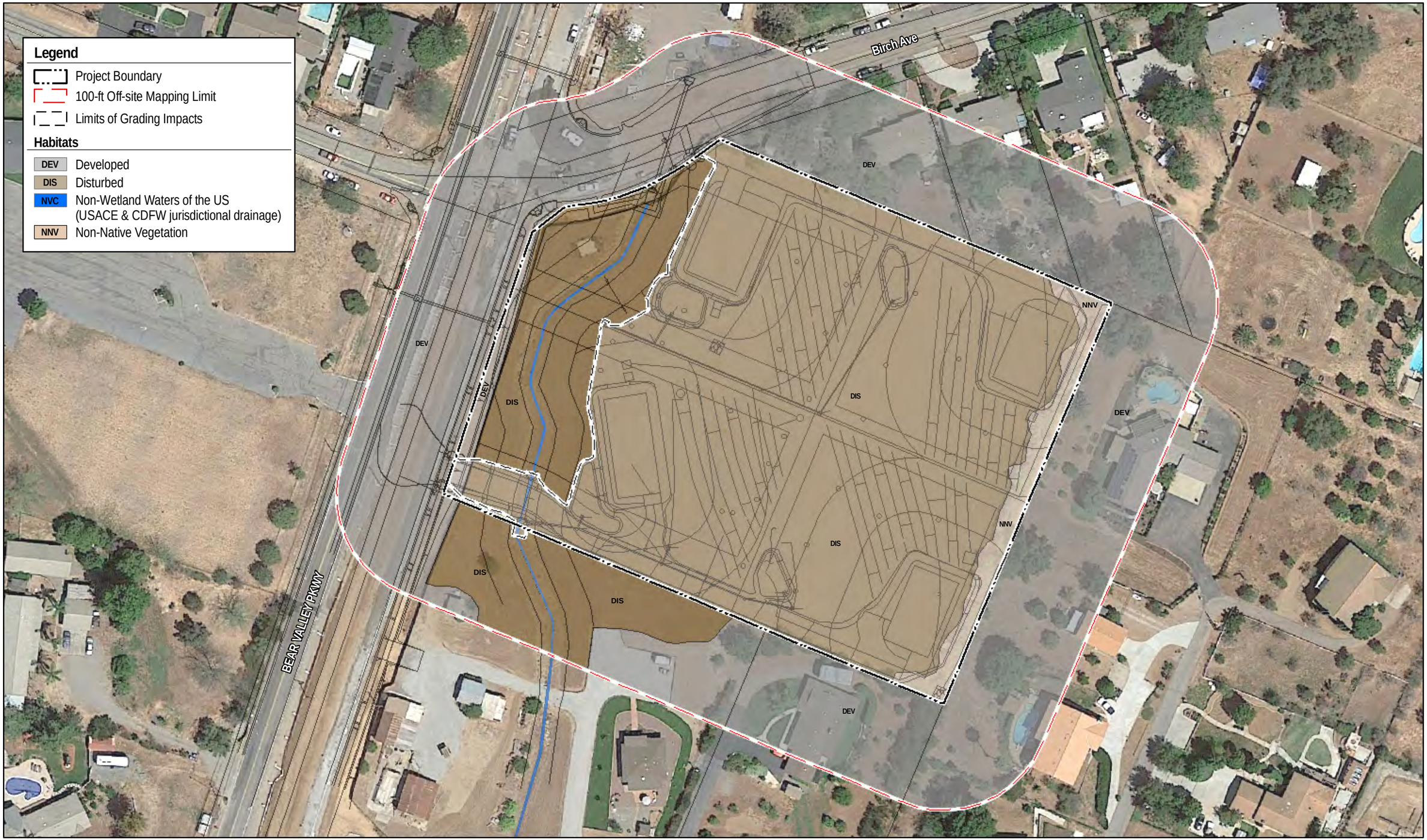
R·E·C Consultants, Inc. | STEEVE TPM

0 40 80 Feet

Aerial Source: Google, April 2015

FIGURE 4

January 2016



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R·E·C Consultants, Inc.

Project Impacts

STEEVE TPM

0 40 80 Feet

Aerial Source: Google, April 2015

FIGURE 5

January 2016

ATTACHMENT A

Plants Observed on the Steeve TPM Project Site

ATTACHMENT A PLANTS OBSERVED ON THE STEEVE TPM PROJECT SITE			
Species Name	**Common Name**	**Family**	**Habitat**
*Acacia sp.**	Acacia	Fabaceae	NNV
*Amaranthus albus**	white tumbleweed	Amaranthaceae	DEV, DIS
Amaranthus blitoides	prostrate amaranth	Amaranthaceae	DIS
*Amaranthus retroflexus**	rough pigweed	Amaranthaceae	DIS
*Anagallis arvensis**	scarlet pimpernel	Primulaceae	DIS, NWU
*Asparagus asparagoides**	florist's-smilax	Asparagaceae	NNV
*Avena sp.**	oats	Poaceae	DIS
*Bromus madritensis subsp. rubens**	red brome, foxtail chess	Poaceae	NNV
Callistemon sp.*	bottlebrush	Myrtaceae	NNV
*Chenopodium album**	lamb's quarters	Chenopodiaceae	DEV
*Chenopodium murale**	nettle-leaf goosefoot	Chenopodiaceae	DIS
Cotoneaster sp.*	Cotoneaster	Rosaceae	NNV
Cyperus esculentus var. leptostachyus	yellow nutsedge	Cyperaceae	DIS, NWU
Eragrostis mexicana subsp. virescens	Orcutt's lovegrass	Poaceae	DIS, NWU
*Erigeron sumatrensis**	asthmaweed	Asteraceae	DEV, DIS
*Euphorbia maculata**	spotted spurge	Euphorbiaceae	NWU, DIS
Hordeum sp.(*)	barley	Poaceae	DIS
*Lactuca serriola**	prickly lettuce	Asteraceae	DIS
*Malva parviflora**	cheeseweed	Malvaceae	DIS
*Nerium oleander**	oleander	Apocynaceae	NNV
*Portulaca oleracea**	common purslane	Portulacaceae	DIS, NWU
*Punica granatum**	pomegranate	Lythraceae	NNV
Quercus agrifolia var. agrifolia	coast live oak, encina	Fagaceae	NNV
*Salsola sp.**	Russian-thistle	Chenopodiaceae	DEV, DIS, NNV
*Schinus molle**	Peruvian pepper tree	Anacardiaceae	NNV
*Schinus terebinthifolius**	Brazilian pepper tree	Anacardiaceae	NNV
Schismus sp.*	schismus	Poaceae	DIS
*Setaria verticillata**	hooked bristlegrass	Poaceae	DIS
*Stipa miliacea var. miliacea**	smilo grass	Poaceae	NNV
*Tamarix sp.**	tamarisk/salt-cedar	Tamaricaceae	NWU
*Tipuana tipu**	tipu tree	Fabaceae	NNV
*Tribulus terrestris**	puncture vine	Zygophyllaceae	DIS, NWU

* non-native

! State or Federal special-status (State endangered, threatened, or rare; Federal endangered, threatened, or candidate for listing, CRPR 1-4)

DEV = Developed Land
DIS = Disturbed Land
NNV = Non-native Vegetation
NWU = Non-wetland Waters of the US

ATTACHMENT B

Animals Observed on the Steeve TPM Project Site

ATTACHMENT B ANIMALS OBSERVED ON THE STEEVE TPM PROJECT SITE			
Scientific Name	**Common Name**	**Habitat Observed**	**No. Observed (estimate)**
Invertebrates			
Class Gastropoda (*)	snail	DIS	~5
Birds			
Psaltriparus minimus	bushtit	NNV	2
Melozone crissalis	California towhee	NNV	1
Mimus polyglottos	northern mockingbird	NNV	1
Mammals			
Sylvilagus audubonii	desert cottontail	NNV	1
Thomomys bottae	Botta's pocket gopher	DIS	mounds

* Non-native species

! State or Federal special-status species (State endangered, threatened, endangered candidate, fully protected, watchlist, or CDF sensitive; or federal endangered, threatened, candidate for listing, USFWS Bird of Conservation Concern, BLM sensitive, or USFWS sensitive)

DIS = Disturbed Land
NNV = Non-native Vegetation

ATTACHMENT C

Special-Status Plants with the Potential to Occur on the Steeve TPM Project Site

ATTACHMENT C
SPECIAL-STATUS PLANTS WITH THE POTENTIAL TO OCCUR ON THE STEEVE TPM PROJECT SITE
(USGS ESCONDIDO QUAD AND SURROUNDING QUADS, 207-213 METERS [679-700 FEET])

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Abronia maritima	red sand-verbena	Nyctaginaceae	4.2	-/-				D	Perennial herb, Feb-Nov	Coastal dunes; 0-100 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Acanthomintha ilicifolia	thornmint, San Diego thorn-mint	Lamiaceae	1B.1	**SE/FT**	X	X	X	A	Annual herb, Apr-Jun	Clay soil, openings in chaparral, coastal scrub, valley & foothill grassland, vernal pools; 10-960 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Acmispon prostratus (Lotus nuttallianus)	prostrate/Nuttall's acmispon (Nuttall's lotus)	Fabaceae	1B.1	-/-		X		A	Annual herb, Mar-Jul	Coastal dunes, sandy coastal scrub; 0-10 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Adolphia californica	spineshrub, California adolphia	Rhamnaceae	2B.1	-/-			X	B	Shrub (deciduous), Dec-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland; 45-740 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Agave shawii var. *shawii*	Shaw's agave	Agavaceae	2B.1	-/-	X	X		B	Perennial (leaf succulent), Sep-May	Coastal bluff scrub, coastal scrub; 10-120 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ambrosia pumila	San Diego ambrosia	Asteraceae	1B.1	-/**FE**	X	X	X	A	Perennial herb (rhizomatous), Apr-Oct	Sandy loam or clay, often disturbed areas, sometimes alkaline areas, in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 20-415 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Aphanisma blitoides	aphanisma	Chenopodiaceae	1B.2	-/-		X		A	Annual herb, Mar-Jun	Sandy soils in coastal bluff scrub, coastal dunes, coastal scrub; 1-305 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Arctostaphylos glandulosa subsp. *crassifolia*	Del Mar manzanita, fe del mar manzanita	Ericaceae	1B.1	-/**FE**		X	X	A	Shrub (evergreen), Dec-Jun	Sandy maritime chaparral; 0-365 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Arctostaphylos rainbowensis	Rainbow manzanita	Ericaceae	1B.1	-/-			X	A	Shrub (evergreen), Dec-Mar	Chaparral; 205-670 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Artemisia palmeri	Palmer's sagewort, San Diego sagewort	Asteraceae	4.2	-/-				D	Biennial to perennial herb to subshrub, Feb-Sep	Sandy, mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 15-915 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Asplenium vespertinum	western spleenwort	Aspleniaceae	4.2	-/-				D	Perennial herb (rhizomatous), Feb-Jun	Rocky chaparral, cismontane woodland, coastal scrub; 180-1000 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Astragalus oocarpus	San Diego milkvetch	Fabaceae	1B.2	-/-				A	Perennial herb, May-Aug	Chaparral (openings), cismontane woodland; 305-1524 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Astragalus tener var. *titi*	coastal dune milkvetch	Fabaceae	1B.1	**SE/FE**		X		A	Annual herb, Mar-May	Sandy coastal bluff scrub, coastal dunes, coastal prairie (mesic); 1-50 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	1B.2	-/-			X	A	Perennial herb, Mar-Oct	Alkaline or clay soils in coastal bluff scrub, coastal dunes, coastal scrub, valley & foothill grassland; 3-460 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Atriplex pacifica	south coast saltbush, south coast saltscale	Chenopodiaceae	1B.2	-/-				A	Annual herb, Mar-Oct	Coastal bluff scrub, coastal dunes, coastal scrub, playas; 0-140 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	1B.1	-			X	A	Annual herb, Jun-Oct	Alkaline soil in chenopod scrub, playas, vernal pools; 25-1900 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Baccharis vanessae	Encinitas baccharis	Asteraceae	1B.1	**SE/FT**	X	X	X	A	Shrub (deciduous), Aug-Nov	Sandstone in maritime chaparral, cismontane woodland; 60-720 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Bahiopsis laciniata (Viguiera l.)	San Diego sunflower, San Diego County viguiera	Asteraceae	4.2	-/-				D	Shrub, Feb-Aug	Chaparral, coastal scrub; 60-750 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Bergerocactus emoryi	velvet cactus, golden-club cactus, golden-spined cereus	Cactaceae	2B.2	-/-				B	Shrub (stem succulent), May-Jun	Sandy soils in closed-cone coniferous forest, chaparral, coastal scrub; 3-395 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Bloomeria clevelandii (Muilla c.)	San Diego goldenstar	Themidaceae	1B.1	-/-		X	X	A	Perennial herb (bulbiferous), Apr-May	Clay soil in chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 50-465 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Brodiaea filifolia	thread-leaf brodiaea	Themidaceae	1B.1	**SE/FT**	X	X	X	A	Perennial herb (bulbiferous), Mar-Jun	Dense Auld and Bosanko clay soils, most often associated with grassland but may occur within other vegetation communities such as coastal sage scrub; 25-860 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	1B.1	-/-		X	X	A	Perennial herb (deciduous, bulbiferous), May-Jul	Mesic, clay, serpentinite soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows & seeps, valley & foothill grassland, and near vernal pools; 30-1692 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Calandrinia breweri	Brewer's calandrinia	Montiaceae	4.2	-/-				D	Annual herb, Mar-Jun	Sandy or loamy disturbed or burned areas in chaparral, coastal scrub; 10-1220 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Cistanthe maritima	sea kisses, seaside cistanthe/calandrinia	Montiaceae	4.2	-/-				D	Annual herb, Feb-Aug	Sandy soils in coastal bluff scrub, coastal scrub, valley & foothill grassland; 5-300 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
California macrophylla (Erodium macrophyllum)	California large-leaf filaree/storksbill, round-leaved filaree	Geraniaceae	1B.1	-/-				B	Annual herb, Mar-May	Clay soil, cismontane woodland, valley & foothill grassland; 15-1200 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Camissoniopsis lewisii (*Camissonia l.*)	Lewis's evening-primrose	Onagraceae	3	-				C	Annual herb, Mar-Jun	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley & foothill grassland/ sandy or clay; 0-300 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ceanothus cyaneus	Lakeside-lilac, Lakeside ceanothus	Rhamnaceae	1B.2	-/-	X	X		A	Shrub (evergreen), Apr-Jun	Closed-cone coniferous forest, chaparral; 235-755 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ceanothus verrucosus	wart-stem-lilac, wart-stemmed ceanothus	Rhamnaceae	2B.2	-/-		X	X	B	Shrub (evergreen), Dec-May	Chaparral; 1-380 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Centromadia parryi subsp. *australis*	southern tarplant	Asteraceae	1B.1	-			X	A	Annual herb, May-Nov	Marshes and swamps (margins), valley & foothill grassland (vernally mesic), vernal pools; 0-425 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Centromadia pungens subsp. *laevis*	smooth tarplant	Asteraceae	1B.1	-				A	Annual herb, Apr-Sep	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley & foothill grassland; 0-640 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	Asteraceae	1B.1	-/-				A	Annual herb, Jan-Aug	Sandy coastal bluff scrub, coastal dunes; 0-100 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Chamaebatia australis	southern mountain misery	Rosaceae	4.2	-/-				D	Shrub (evergreen), Nov-May	Gabbroic or metavolcanic chaparral; 300-1020 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Chorizanthe leptotheca	Ramona spineflower	Polygonaceae	4.2	-/-				D	Annual herb, May-Aug	Alluvial fans and granitic soil in chaparral, coastal scrub, lower montane coniferous forest; 300-1900 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Chorizanthe orcuttiana	Orcutt's spineflower	Polygonaceae	1B.1	SE/FE			X	A	Annual herb, Mar-May	Sandy openings in maritime chaparral, closed-cone coniferous forest, and coastal scrub; 3-125 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Chorizanthe polygonoides var. *longispina*	knotweed spineflower, long-spined spineflower	Polygonaceae	1B.2	-/-				A	Annual herb, Apr-Jul	Often clay soils in chaparral, coastal scrub, meadows & seeps, valley & foothill grassland, near vernal pools; 30-1530 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Clarkia delicata	delicate clarkia, Campo clarkia	Onagraceae	1B.2	-/-				A	Annual herb, Apr-Jun	Often gabbroic soil in chaparral, cismontane woodland; 235-1000 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Clinopodium chandleri (Satureja c.)	San Miguel savory	Lamiaceae	1B.2	-/-		X	X	A	Shrub, Mar-Jul	Rocky, gabbroic or metavolcanic soils in chaparral, cismontane woodland, coastal scrub, riparian woodland, valley & foothill grassland; 130-1075 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Comarostaphylis diversifolia subsp. *diversifolia*	summer-holly	Ericaceae	1B.2	-/-			X	A	Shrub (evergreen), Apr-Jun	Chaparral, cismontane woodland; 30-790 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Convolvulus simulans	small-flower bindweed, small-flowered morning-glory	Convolvulaceae	4.2	-/-				D	Annual herb, Mar-Jul	Clay soils and serpentinite seeps in chaparral openings, coastal scrub, valley & foothill grassland; 30-700 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Corethrogyne filaginifolia var. *linifolia* (TJM2 recognizes no varieties and includes this in *C. filaginifolia*)	Del Mar sand-aster	Asteraceae	1B.1	-/-		X		A	Perennial herb, May-Sep	Sandy soils in coastal bluff scrub, openings in maritime chaparral, and sandy coastal scrub; 15-150 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Cylindropuntia californica var. *californica* (*Opuntia parryi* var. *serpentina*)	snake cholla	Cactaceae	1B.1	-/-	X	X		A	Shrub (stem succulent), Apr-May	Chaparral, coastal scrub; 30-150 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Dichondra occidentalis	western dichondra, western ponyfoot	Convolvulaceae	4.2	-/-				D	Perennial herb (rhizomatous), Jan-Jul	Chaparral, cismontane woodland, coastal scrub, valley & foothill grassland; 50-500 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Dudleya brevifolia (*D. blochmaniae* subsp. *brevifolia*)	short-leaf dudleya	Crassulaceae	1B.1	**SE**/-	X	X	X	A	Perennial herb, Apr-May	On Torrey sandstone in openings in maritime chaparral & coastal scrub; 30-250 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Dudleya variegata	variegated dudleya	Crassulaceae	1B.2	-/-	X	X		A	Perennial herb, Apr-Jun	Clay soils in chaparral, cismontane woodland, coastal scrub, valley & foothill grassland, near vernal pools; 3-580 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Dudleya viscida	sticky dudleya	Crassulaceae	1B.2	-		X	X	A	Perennial herb, May-Jun	Rocky coastal bluff scrub, chaparral, coastal scrub; 10-550 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Asteraceae	1B.1	-/-	X	X		B	Shrub (evergreen), Jul-Nov	Mesic chaparral, coastal scrub; 30-600 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Eryngium aristulatum var. *parishii*	San Diego button-celery	Apiaceae	1B.1	**SE/FE**		X	X	A	Biennial to perennial herb, Apr-Jun	Mesic coastal scrub, valley & foothill grassland, vernal pools; 20-620 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Euphorbia misera	cliff spurge	Euphorbiaceae	2B.2	-/-				B	Shrub, Dec-Aug	Coastal bluff scrub, coastal scrub/ rocky; 10-500 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ferocactus viridescens	coast barrel cactus, San Diego barrel cactus	Cactaceae	2B.1	-/-		X	X	B	Perennial (stem succulent), May-Jun	Chaparral, coastal scrub, valley & foothill grassland, near vernal pools; 3-450 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Geothallus tuberosus	Cambell's liverwort	Sphaerocarpaceae	1B.1	-/-				-	Ephemeral liverwort	Vernal pools and mesic coastal sage scrub; 10-600 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Githopsis diffusa subsp. *filicaulis*	Mission Canyon bluecup	Campanulaceae	3.1	-/-				C	Annual herb, Apr-Jun	Chaparral (mesic, disturbed areas); 450-700 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Grindelia hallii *(G. hirsutula* var. *hallii)*	San Diego gumplant	Asteraceae	1B.2	-/-				A	Perennial herb, Jul-Oct	Chaparral, lower montane coniferous forest, meadows & seeps, valley & foothill grassland; 185-1745 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Harpagonella palmeri	Palmer's grappling-hook	Boraginaceae	4.2	-/-				D	Annual herb, Mar-May	Clay soils in chaparral, coastal scrub, valley & foothill grassland; 20-955 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Hazardia orcuttii	Orcutt's goldenbush, Orcutt's hazardia	Asteraceae	1B.1	ST/FC				A	Shrub (evergreen), Aug-Oct	Maritime chaparral, coastal scrub, often clay soil; 80-85 meters	Low; would have been detectable during December survey and was not observed; no clay soils mapped on-site.
Heterotheca sessiliflora subsp. *sessiliflora*	false goldenaster, beach goldenaster	Asteraceae	1B.1	-/-				D	Perennial herb, Mar-Dec	Coastal chaparral, coastal dunes, coastal scrub; 0-60 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Holocarpha virgata subsp. *elongata*	graceful tarplant	Asteraceae	4.2	-/-				D	Annual herb, May-Nov	Chaparral, cismontane woodland, coastal scrub, valley & foothill grassland; 60-1100 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Hordeum intercedens	little barley, vernal barley	Poaceae	3.2	-				C	Annual herb, Mar-Jun	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools; 5-1000 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Horkelia truncata	Ramona horkelia	Rosaceae	1B.3	-/-				A	Perennial herb, May-Jun	Clay or gabbroic soils in chaparral, cismontane woodland; 400-1300 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	Asteraceae	1B.2	-/-				A	Shrub, Apr-Nov	Sandy, often disturbed areas in chaparral, coastal scrub; 10-135 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Iva hayesiana	San Diego marsh-elder	Asteraceae	2B.2	-/-				B	Perennial herb to subshrub, Apr-Oct	Marshes & swamps, playas; 10-500 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Juglans californica *(J. c.* var. *californica)*	Southern California black walnut	Juglandaceae	4.2	-/-				D	Tree (deciduous), Mar-Aug	Alluvial soils in chaparral, cismontane woodland, coastal scrub; 50-900 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Juncus acutus subsp. *leopoldii*	southwestern spiny rush	Juncaceae	4.2	-/-				D	Perennial herb, Mar-Jun	Coastal dunes (mesic), meadows & seeps (alkaline seeps), marshes and swamps (coastal salt); 3-900 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Lasthenia glabrata subsp. *coulteri*	Coulter's salt-marsh daisy, Coulter's goldfields	Asteraceae	1B.1	-/-				A	Annual herb, Feb-Jun	Coastal salt marshes & swamps, playas, vernal pools; 1-1220 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lepechinia cardiophylla	heart-leaf pitcher sage	Lamiaceae	1B.2	-/-	X	X		A	Shrub, Apr-Jul	Closed-cone coniferous forest, chaparral, cismontane woodland; 520-1370 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Lepechinia ganderi	Gander's pitcher sage	Lamiaceae	1B.3	-/-	X	X		A	Shrub, Jun-Jul	Gabbroic or metavolcanic soils in closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; 305-1005 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lepidium virginicum var. *robinsonii* (not recognized in TJM2)	Robinson's peppergrass	Brassicaceae	4.3	-/-				A	Annual herb, Jan-Jul	Chaparral, coastal scrub; 1-885 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	4.2	-/-					Annual herb, Apr-Aug	Sandy soils in coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland; 5-1220 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Leptosyne maritima (Coreopsis m.)	San Diego sea-dahlia	Asteraceae	2B.2	-/-				B	Perennial herb, Mar-May	Coastal bluff scrub, coastal scrub; 5-150 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lilium humboldtii subsp. *ocellatum*	ocellated lily, ocellated Humboldt lily	Liliaceae	4.2	-/-				D	Perennial herb (bulbiferous), Mar-Aug	Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland; 30-1800 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lycium californicum	California desert thorn	Solanaceae	4.2	-				D	Shrub, Mar-Aug	Coastal bluff scrub, coastal scrub; 5-150 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Microseris douglasii subsp. *platycarpha*	small-flower microseris	Asteraceae	4.2	-/-				D	Annual herb, Mar-May	Clay soils in cismontane woodland, coastal scrub, valley & foothill grassland, vernal pools; 15-1070 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Mimulus clevelandii	Cleveland's bush monkey flower	Phrymaceae	4.2	-/-				D	Perennial herb (rhizomatous), Apr-Jul	Gabbro soils, often in openings or disturbed or rocky areas, in chaparral, lower montane coniferous forest; 450-2000 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Mimulus diffusus (included in *M. palmeri* in TJM2)	Palomar monkey flower	Phrymaceae	4.3	-/-				D	Annual herb, Apr-Jun	Sandy or gravelly chaparral, lower montane coniferous forest; 1220-1830 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Monardella hypoleuca subsp. *lanata*	felt-leaf monardella	Lamiaceae	1B.2	-/-		X	X	A	Perennial herb to subshrub (rhizomatous), Jun-Aug	Chaparral, cismontane woodland; 300-1575 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Monardella viminea (M. linoides subsp. v.)	willowy monardella	Lamiaceae	1B.1	**SE/FE**	X	X		A	Perennial herb to subshrub, Jun-Aug	Alluvial ephemeral washes, chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; 50-225 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Myosurus minimus (includes M. m. subsp. apus)	little mousetail	Ranunculaceae	3.1	-/-			X	C	Annual herb, Mar-Jun	Valley & foothill grassland, vernal pools (alkaline); 20-640 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Navarretia fossalis	spreading navarretia	Polemoniaceae	1B.1	-/**FT**		X	X	A	Annual herb, Apr-Jun	Chenopod scrub, marshes & swamps (shallow freshwater), playas, vernal pools; 30-655 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Nemacaulis denudata var. *denudata*	coast woolly-heads	Polygonaceae	1B.2	-/-				A	Annual herb, Apr-Sep	Coastal dunes; 0-100 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Nolina cismontana	Peninsular bear-grass, chaparral nolina	Ruscaceae	1B.2	-/-			X	A	Shrub (evergreen), Mar-Jul	Sandstone or gabbro soils in chaparral, coastal scrub; 140-1275 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ophioglossum californicum	California adder's tongue	Ophioglossaceae	4.2	-				D	Perennial herb (rhizomatous), Dec-Jun	Mesic chaparral and valley & foothill grassland, vernal pools margins); 60-525 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Orcuttia californica	California Orcutt's grass	Poaceae	1B.1	**SE/FE**		X		A	Annual herb, Apr-Aug	Vernal pools; 15-660 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Orobanche parishii subsp. *brachyloba*	beach orobanche, short-lobe orobanche	Orobanchaceae	4.2	-/-				D	Perennial herb (parasitic), Apr-Oct	Sandy coastal bluff scrub, coastal dunes, coastal scrub; parasitic on shrubs, generally *Isocoma menziesii*; 3-305 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Packera ganderi (Senecio g.)	Gander's butterweed, San Diego butterweed, Gander's ragwort	Asteraceae	1B.2	**SR**/-		X	X	A	Perennial herb, Apr-May	Burns and gabbroic outcrops in chaparral; 400-1200 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Pentachaeta aurea subsp. *aurea*	golden-ray pentachaeta	Asteraceae	4.2	-				D	Annual herb, Mar-Jul	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley & foothill grassland; 80-1850 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Phacelia stellaris	Brand's phacelia	Boraginaceae	1B.1	-/FC				A	Annual herb, Mar-Jun	Coastal dunes, coastal scrub; 1-400 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Pinus torreyana (subsp. *torreyana)*	Torrey pine	Pinaceae	1B.2	-/-		X		A	Tree (evergreen)	Sandstone soils in closed-cone coniferous forest, chaparral; 75-160 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Piperia cooperi	Cooper's rein orchid, chaparral rein orchid	Orchidaceae	4.2	-/-				D	Perennial herb, Mar-Jun	Chaparral, cismontane woodland, valley & foothill grassland; 15-1585 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Pogogyne abramsii	San Diego mesa mint	Lamiaceae	1B.1	**SE/FE**		X		A	Annual herb, Apr-Jul	Vernal pools; 90-200 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Polygala cornuta var. *fishiae*	Fish's milkwort	Polygalaceae	4.3	-/-				D	Shrub (deciduous), May-Aug	Chaparral, cismontane woodland, riparian woodland; 100-1100 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Psilocarphus brevissimus var. *multiflorus*	delta woolly marbles, dwarf woollyheads	Asteraceae	4.2	-/-					Annual herb, May-Jun	Vernal pools; 10-500 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite
Quercus dumosa	Nuttall's scrub oak	Fagaceae	1B.1	-/-			X	A	Shrub (evergreen), Feb-Aug	Sandy, clay loam soils in closed-cone coniferous forest, chaparral, coastal scrub; 15-400 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Quercus engelmannii	Engelmann/mesa blue oak	Fagaceae	4.2	-			X	D	Tree (deciduous), Mar-May	Chaparral, cismontane woodland, riparian woodland, valley & foothill grassland; 120-1300 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site.
Selaginella cinerascens	mesa spike-moss, ashy spike-moss	Selaginellaceae	4.1	-/-				D	Perennial rhizomatous herb	Chaparral and coastal scrub on undisturbed soil.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site
Senecio aphanactis	California groundsel, chaparral ragwort	Asteraceae	2B.2	-/-				B	Annual herb, Jan-Apr	Chaparral, cismontane woodland, coastal scrub, sometimes alkaline; 15-800 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site
Sphaerocarpus drewei	bottle liverwort	Sphaerocarpaceae	1B.1	-				-	Liverwort (ephemeral)	Chaparral, coastal scrub/openings, soil; 90-600 m	Non-vascular plants were not evaluated for potential to occur on-site but no CNDDB occurrences documented in Project quad.
Stemodia durantifolia	blue streamwort, purple stemodia	Plantaginaceae	2B.1	-/-				B	Perennial herb, Jan-Dec	Riparian habitats, on wet sand or rocks, drying streambeds; <400 m (TJM2)	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site
Stipa diegoensis (Achnatherum diegoense)	San Diego needlegrass, San Diego County needle grass	Poaceae	4.2	-/-				D	Perennial herb, Feb-Jun	Rocky, often mesic areas in chaparral, coastal scrub; 10-800 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site
Suaeda esteroa	estuary sea-blite	Chenopodiaceae	1B.2	-/-				A	Perennial herb, May-Jan	Coastal salt marshes and swamps; 0-5 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Suaeda taxifolia	woolly sea-blite	Chenopodiaceae	4.2	-				D	Shrub (evergreen), Jan-Dec	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt); 0-50 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Tetracoccus dioicus	Parry's tetracoccus	Picrodendraceae	1B.2	-/-		X	X	A	Shrub, Apr-May	Chaparral, coastal scrub; 165-1000 m	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Texosporium sancti-jacobi	woven-spored lichen	Caliciaceae	-	-/-					Lichen	On rabbit pellets or small bits of decaying organic matter, in open sites undisturbed sites with *Adenostoma fas* ., *Eriogonum* , *Selaginell* a; up to 1000 m	Non-vascular plants were not evaluated for potential to occur on-site but no CNDDB occurrences documented in Project quad.
Triquetrella californica	coastal triquetrella	Pottiaceae	1B.2	-/-				-	Moss	Soil in coastal bluff scrub, coastal scrub; 10-100 m	Non-vascular plants were not evaluated for potential to occur on-site but no CNDDB occurrences documented in Project quad.
Xanthisma junceum (Machaeranthera juncea)	rush chaparral-star, rush-like bristleweed	Asteraceae	4.3	-/-				D	Perennial herb, Jun-Jan	Chaparral, coastal scrub; 240-1000 m	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not occur on-site

Species Name	Common Name	Family	CRPR	State/ Federal	Cnty NE	MSCP	NCPC	Cnty List	Growth form, bloom time	Habitat	Potential to Occur Onsite

Listing Designations

CRPR - California Rare Plant Rank (from Rare Plant Status Review Group, jointly managed by California Department of Fish and Wildlife [CDFW] and California Native Plant Society [CNPS])

1A - Plants presumed extirpated in California and either rare or extinct elsewhere
1B - Plants rare, threatened or endangered in California AND elsewhere
2A - Presumed extirpated or extinct in California, but more common elsewhere
2B - Plants rare, threatened or endangered in California, but more common elsewhere
3 - Plants about which more information is needed - a review list
4 - Plants of limited distribution - a watch list

.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 - Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

State of California species designations (CDFW April 2013)
SE - State-listed Endangered
ST - State-listed Threatened
SR - State-listed Rare

Federal species designations (CDFW April 2013, USFWS 2013)
FE - Federally-listed Endangered
FT - Federally-listed Threatened
FC - Federal candidate for listing

Cnty NE - an X in this column indicates the species is considered a Narrow Endemic by the County of San Diego (MSCP County of San Diego Subarea Plan 1997)

Cnty List - County Sensitive Plant List (County of San Diego 2010)
A - County List A: plants rare, threatened or endangered in California and elsewhere
B - County List B: plants rare, threatened or endangered in California but more common elsewhere
C - County List C: plants which may be rare, but need more information to determine their true rarity status
D - County List D: plants of limited distribution and are uncommon, but not presently rare or endangered

MSCP - an X in this column indicates the species is included in the Multiple Species Conservation Program (MSCP Plan 1998)

NCPC - an X in this column indicates the species is proposed covered under in-process North County Multiple Species Conservation Program

Other abbreviations:

TJM2 - The Jepson Manual, 2nd edition (2012) (taxonomic authority for this report except where it conflicts with special-status plant recognition)
(Common names are primarily from *The Checklist of Vascular Plants of San Diego County* [Rebman and Simpson 2006], and secondarily from CNPS's Inventory of Rare and Endangered Plants [CNPS 2010, 2013])

ATTACHMENT D

Special-Status Animals with the Potential to Occur on the Steeve TPM Project Site

ATTACHMENT D
SPECIAL-STATUS ANIMALS WITH THE POTENTIAL TO OCCUR ON THE STEEVE TPM PROJECT SITE
(USGS ESCONDIDO QUAD AND SURROUNDING QUADS, 207-213 METERS [679-700 FEET])

Species Name	Common Name	State/Federal Status	Cnty NE	MSCP	Cnty Group	Habitat	Potential to Occur Onsite
INVERTEBRATES							
Branchinecta sandiegonensis	San Diego fairy shrimp	-/**FE**	X	X	1	Vernal pools and other unvegetated ephemeral basins in Orange and San Diego Counties and Baja California.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Cicindela hirticollis gravida	sandy beach tiger beetle	-/-			2	Moist swales behind dunes or on upper beaches above normal high tide	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Cicindela senilis frosti	senile tiger beetle	-/-			2	Coastal salt marshes, tidal mud flats, interior alkali mud flats; an inland site near Jacumba.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Coelus globosus	globose dune beetle	-/-			1	Sea beach dunes	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Danaus plexippus	monarch butterfly	-/-			2	Land with host plant milkweeds (*Asclepias* spp.) or nectar plants.	Low; host plant was not observed on-site and suitable nectar plants are limited.
Euphydryas editha quino	Quino checkerspot butterfly	-/**FE**	X		1	Open grassy areas, interior foothills, host-plant is *Plantago erecta , Plantago ovata , Castilleja exserta;* 0-1000ft.	Low; not known to occur in Project quad or surrounding quads, host plants were not observed on-site and suitable nectar plants are limited.
Melitta californica	California melittid bee	-/-				Desert regions of SW Arizona, SE California, and Baja California; also collected at Torrey Pines and Coronado.	Low; not known to occur in Project quad and Coronado collection was from 19th century.
Streptocephalus woottoni	Riverside fairy shrimp	-/**FE**	X	X	1	Vernal pools and other unvegetated ephemeral basins in inland Riverside, Orange and San Diego (Ramona area) Counties, and coastal SD County and Baja California.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Tryonia imitator	mimic tryonia	-/-			2	Coastal lagoons, estuaries and salt marshes in permanently submerged areas, in a variety of sediment types, withstands wide range of salinity.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
FISHES							
Gila orcuttii	arroyo chub	SSC/-			1	Slow moving sections of streams with sand or mud substrate; also in headwaters, creeks, small-medium rivers, often intermittent streams; tolerant of low oxygen and wide temperature fluctuations; midwater and benthic.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
AMPHIBIANS							
Anaxyrus californicus (Bufo c.)	arroyo toad	SSC/**FE**, USFWS-S	X	X	1	Washes, arroyos, sandy riverbanks, riparian areas; needs exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding; 0-3,000 ft (900 m)	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	State/Federal Status	Cnty NE	MSCP	Cnty Group	Habitat	Potential to Occur Onsite
Spea hammondii	western spadefoot	SSC/BLM-S			2	Open areas with sandy or gravelly soils, in mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains; rainpools free of bullfrogs, fish, or crayfish needed for breeding. Activity limited to wet season, summer storms or during evenings with elevated substrate moisture levels. Nocturnal. 0-4,500	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
REPTILES							
Acinemys marmorata *(Emys m., Clemmys m. pallida)*	western pond turtle (southwestern pond turtle)	SSC/BLM-S, USFS-S	X	X	1	Major rivers and streams, especially in headwater areas.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Anniella stebbinsi (formerly *A. pulchra pulchra*)	Southern California legless lizard (formerly silvery legless lizard)	SSC/-			2	Loose soil and leaf litter with plant cover in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks; often under surface objects such as rocks, boards, driftwood, and logs; sometimes found in suburban gardens in	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Aspidoscelis hyperythra *(Cnemidophorus hyperythrus)*	orange-throated whiptail	SSC/-		X	2	Coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 1-1000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Aspidoscelis tigris stejnegeri *(Cnemidophorus t. s.)*	coastal whiptail	-/-			2	Found in hot, dry open areas with sparse foliage such as chaparral, woodland, and riparian areas mostly west of the Peninsular Ranges.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Coleonyx variegatus abbotti	San Diego banded gecko	-/-			1	Interior coastal region, west of Peninsular ranges, prefers rocky areas in coastal sage and chaparral, nocturnal, hibernates in winter.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Crotalus ruber	red diamond rattlesnake	SSC/-			2	Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Diadophis punctatus similis	San Diego ringneck snake	-/USFS-S			2	Moist habitats including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands, along coast into Peninsular Ranges; may not be distinct from San Bernardino subspecies (*D. p. modestus*), which is also special-status.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lichanura trivirgata *(Charina t.)*	rosy boa (coastal rosy boa)	-/USFS-S			2	Coastal sage scrub, mixed chaparral, oak woodlands and chamise chaparral. Often found in association with rock outcrops; 0-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Phrynosoma blainvillii (Anota coronatum, P. c.)	Blainville's horned lizard, coast horned lizard	SSC/BLM-S, USFS-S		X	2	Coastal sage scrub with harvester ants *(Pogonomyrmex* spp.).	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Plestiodon skiltonianus interparietalis *(Eumeces s. i.)*	Coronado skink	SSC/BLM-S			2	Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.

Species Name	Common Name	State/Federal Status	Cnty NE	MSCP	Cnty Group	Habitat	Potential to Occur Onsite
Salvadora hexalepis virgultea	coast patch-nosed snake	SSC/-			2	Chaparral, coastal sage scrub, and other brushy vegetation west of desert, found near rock outcrops with adjacent seasonal drainages.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Thamnophis hammondii	two-striped garter snake	SSC/BLM-S, USFS-S			1	In or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools; 0-1000ft.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
BIRDS							
Accipiter cooperii	Cooper's hawk	WL/-		X	1	Riparian and oak woodlands, eucalyptus groves and other forested areas; 500-3000ft.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Agelaius tricolor	tricolored blackbird	SSC/BCC, BLM-S		X	1	Fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs (Breeds). Feeds in grassland and cropland habitats; 0-500ft and 1000-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	WL/-		X	1	Sparse, mixed chaparral and coastal scrub habitats (especially coastal sage). Frequents relatively steep, often rocky hillsides with grass and forb patches; 0-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Ammodramus savannarum	grasshopper sparrow	SSC/-		X	1	Short- to middle-height, moderately open grasslands with scattered shrubs, native bunchgrasses preferred; hard to identify except when singing (Mar-Jul).	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Aquila chrysaetos	golden eagle	FP, WL, CDF-S/ BLM-S, BCC	X	X	1	Mountains, foothills, and adjacent grassland, open areas and canyons; 0-3000ft. (nesting/wintering)	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Ardea herodias	great blue heron	CDF-S/-			2	Year-round in wetlands of all kinds, also forages in uplands for gophers and rats, nests in tall trees.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Artemisiospiza belli belli (Amphispiza b. b.)	Bell's sage sparrow	WL/BCC			1	Year-round resident in open chaparral and sage scrub, especially recently where burned areas or on gabbro substrate; most common in central southern SD County; very sensitive to habitat fragmentation.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Athene cunicularia	burrowing owl	SSC/BCC, BLM-S	X	X	1	Open, dry grasslands, agricultural and range lands, shrub and desert habitats of low-growing open vegetation (associated with burrowing animals).	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Buteo swainsoni	Swainson's hawk	ST/BCC, USFS-S		X	1	Winters in desert scrub; 0-500ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren, San Diego cactus wren	SSC/BCC, USFS-S	X	X	1	Open coastal sage scrub with thickets of chollas (*Cylindropuntia* sp.), south- and west-facing slopes below 1,500 ft, usually within quarter mile of river valleys.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Cathartes aura	turkey vulture	-/-			1	Dry open country or along roadsides; coastal sage scrub, mixed and chamise chaparral, grassland, riparian, mixed conifer and closed cone forest; 0 to over 3000ft.	Low; species could use general area but Site is small and disturbed and is unlikely to provide forage.
Charadrius nivosus (Charadrius alexandrinus n.)	snowy plover (western snowy plover)	-/-		X	1	Immediate coast at scattered beach, bay and lagoon locations; nests on beaches, dunes and salt flats.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

Species Name	Common Name	State/Federal Status	Cnty NE	MSCP	Cnty Group	Habitat	Potential to Occur Onsite
Circus cyaneus	northern harrier	SSC/-		X	1	Year-round resident but more common in winter; nests on ground in marsh or other dense vegetation, forages over grasslands.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	**SE**/FC, BCC, BLM-S, USFS-S	X		1	Extensive stands of mature riparian woodland.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Elanus leucurus (*E. caeruleus*)	white-tailed kite (black-shouldered kite)	FP/-			1	Widespread over coastal slope, prefers riparian woodlands, oak groves, or sycamore groves adjacent to grassland; feeds almost exclusively on California vole.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Empidonax traillii extimus	southwestern willow flycatcher	**SE/FE**	X	X	1	Riparian wooded/shrubby habitat that is dense in all strata.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Eremophila alpestris actia	California horned lark	WL/-			2	Open patches of bare land alternating with low vegetation in grasslands, montane meadows, and sagebrush plains.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Falco mexicanus	prairie falcon	WL/BCC			1	Mountainous grasslands, open hills, open plains; 0 to over 3000ft.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Icteria virens	yellow-breasted chat	SSC/-			1	Summer visitor in dense riparian woodland, most common in coastal lowland, strongly concentrated in NW corner of County; usually return to SD second week in April and start to leave by early August.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Lanius ludovicianus	loggerhead shrike	SSC/BCC			1	Open fields with scattered trees, open woodland, scrub, agricultural land, desert wash, desert-edge scrub, beach areas, broken chapparal.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Larus californicus	California gull	WL/-			2	In winter at beaches, bays, estuaries, and lakes/reservoirs through coastal lowland, and occasionally at higher elevation lakes; uncommon to rare in summer	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Laterallus jamaicensis coturniculus	California black rail	**ST**, FP/BCC, BLM-S	X		2	Tidal sloughs and marshland with unrestricted tidal influence, especially those dominated by pickleweed, bulrushes, and matted salt grass. Nests in or along edge of marsh.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	**SE**/-	X	X	1	Narrowly restricted to coastal marshes dominated by pickleweed, southern California and northern Baja California.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Plegadis chihi	white-faced ibis	WL/-		X	1	Nests in freshwater marshes and forages in in shallow water and wet grass.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Polioptila californica californica	coastal California gnatcatcher	SSC/**FT**		X	1	Coastal sagebrush scrub especially where California sage (*Artemisia californica*) is dominant plant; up to 3000 ft but 90% at 1000 ft or lower.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Rallus longirostris levipes	light-footed clapper rail	**SE**, FP/**FE**	X	X	1	Year-round resident in coastal salt marsh, especially where dominated by Spartina, and also known at three freshwater sites in SD County.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.

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Sternula antillarum browni (Sterna a. b.)	California least tern	**SE**, FP/**FE**	X	X	1	Nests on dunes and flats along sea, bay and estuary shores; forages in bays and estuaries, ocean, and inland lakes in coastal lowland; has nested up to four miles inland in the past	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Vireo bellii pusillus	least Bell's vireo	**SE/FE**	X	X	1	Riparian vegetation along rivers and larger creeks, with both riparian canopy and somewhat a dense or shrubby understory for nesting	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
MAMMALS							
Antrozous pallidus	pallid bat	SSC/BLM-S, USFS-S			2	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, desert wash and desert scrub. Prefers rocky outcrops, cliffs and crevices with access to open habitats for foraging	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Chaetodipus californicus femoralis	Dulzura California pocket mouse	SSC/-			2	Coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	SSC/-			2	Sandy, herbaceous areas, usually associated with rocks or coarse gravel, in coastal scrub, chaparral, grasslands, sagebrush in western San Diego County; nocturnal.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Choeronycteris mexicana	Mexican long-tongued bat	SSC/-			2	In CA, found in residential areas, roosts in garages, sheds, porches, and under houses on stilts; feeds on pollen and nectar, especially of agaves and columnar cacti, and will visit hummingbird feeders and possibly avocado flowers; seen in fall and winter, presumed to not breed in CA.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Corynorhinus townsendii (Plecotus t. pallescens)	Townsend's big-eared bat	SSC/BLM-S, USFS-S			2	Variety of habitats, most common at mesic sites. Roosts in the open , extremely sensitive to human disturbance.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Dipodomys stephensi	Stephens' kangaroo rat	**ST/FE**			1	Grasslands with strong forb component and limited shrubs such as *Artemisia californica* and *Eriogonum fasciculatum* , with perennial cover <30%; forb seeds are preferred food; San Jacinto Valley south to Warner Ranch; nocturnal	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Euderma maculatum	spotted bat	SSC/BLM-S			2	Primarily cave dwelling but also found in mixed chaparral and oak woodlands; very rare in SD County.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Eumops perotis californicus	western mastiff bat	SSC/BLM-S			2	Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Lasiurus blossevillii	western red bat	SSC/-			2	Prefers riparian areas, where they roost in broad-leaf trees; migratory, most likely to be in western SD in winter.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Lasiurus xanthinus	western yellow bat	SSC/-				Desert areas with palms and, increasingly, year-round in urban areas in planted palms; roosts in hanging palm fronds; eats insects	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.

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Lepus californicus bennettii	San Diego black-tailed jackrabbit	SSC/-			2	Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Myotis ciliolabrum	western small-footed myotis	-/BLM-S			2	Primarily found in relatively arid wooded and brushy uplands near water; roosts in caves, buildings, mines, crevices, and occasionally under bridges and under bark.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Myotis evotis	long-eared myotis	-/BLM-S			2	Brush, woodland and forest habitats from sea level to around 900 ft, but prefers coniferous woodlands and forests; roosts in tree cavities, under tree bark, or in rock crevices, caves, mines, abandoned buildings; feeds on insects over open water.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Myotis yumanensis	Yuma myotis	-/BLM-S			2	Open forests and woodlands with water bodies over which to forage, roosts in caves, mines, buildings, bridges, and tree cavities.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Neotoma lepida intermedia	San Diego desert woodrat	SSC/-			2	Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Nocturnal. Typically associated with cacti; 500-3000ft.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Nyctinomops femorosaccus	pocketed free-tailed bat	SSC/-			2	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian; rocky areas with high cliffs.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Nyctinomops macrotis	big free-tailed bat	SSC/-			2	Dry high elevation forests.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.
Odocoileus hemionus (fuliginata)	mule deer, southern mule deer	-/-		X	2	Woodlands, riparian areas, margins of meadows and grasslands, and open shrublands.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Onychomys torridus ramona	southern grasshopper mouse	SSC/-			2	Semi-arid to arid scrub with friable soils and low to moderate shrub cover. Carnivorous, preferred food is grasshoppers but will consume seeds, other insects and lizards.	Low; no CNDDB occurrences documented in Project quad or surrounding quads and suitable habitat does not exist on-site.
Perognathus longimembris pacificus	Pacific little pocket mouse	SSC/**FE**	X		1	Coastal sage scrub and grasslands with fine-grain, sandy substrates; historically inhabited coastal dunes, river alluvium, and sage scrub habitats growing on marine terraces within approximately 2.4 miles of the ocean; 0-500 ft.	Low; no CNDDB occurrences documented in Project quad and suitable habitat does not exist on-site.
Taxidea taxus	American badger	SSC/-		X	2	Most common in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Low; CNDDB occurrence(s) documented in Project quad but suitable habitat does not exist on-site.

Listing Designations

Federal Listing (USFWS 2013, CDFW 2011)
FE - Federal-listed Endangered

State Listing (CDFW 2011, 2013)
SE - State-listed Endangered

Species Name	Common Name	State/Federal Status	Cnty NE	MSCP	Cnty Group	Habitat	Potential to Occur Onsite

FT - Federal-listed Threatened
FC - Federal candidate for listing
BCC - US Fish and Wildlife Service Bird of Conservation Concern
BLM-S - Bureau of Land Management Sensitive
USFS-S - US Forest Service Sensitive

ST - State-listed Threatened
SEC - State Endangered Candidate
FP - CA Dept. of Fish and Wildlife Fully Protected
SSC - State Species of Special Concern
WL - CA Dept. of Fish and Wildlife Watch List
CDF-S - CA Dept. of Forestry Sensitive

Cnty NE - an X in this column indicates the species is considered a Narrow Endemic by the County of San Diego (MSCP County of San Diego Subarea Plan 1997)

Cnty Group - County of San Diego Sensitive Animal Group (County of San Diego 2010)
1 - County of SD Sensitive Animal List Group 1
2 - County of SD Sensitive Animal List Group 2

MSCP - an X in this column indicates the species is included in the Multiple Species Conservation Program (MSCP Plan 1998)