



August 27, 2015

Ms. Laurel Lees
County of San Diego
Department of Parks and Recreation
5500 Overland Avenue, Suite 410
San Diego, California 92123

Subject: Biological Resources Letter Report for the San Diego River Trail Segment - El Monte Road to Historic Flume and Lake Jennings Campground Connection (ICF 00608.14)

Dear Ms. Price:

ICF International (ICF) was retained to conduct biological surveys and prepare a Biological Resources Letter report for the proposed San Diego River Trail segment, located on Helix Water District (HWD) Property, within the approved Multiple Species Conservation Program Subarea Plan (MSCP SAP). This letter report analyzes potential effects on sensitive biological resources associated with construction of the proposed trail.

SUMMARY

The proposed San Diego River Trail Segment - El Monte Road to Historic Flume and Lake Jennings Campground Connection Project (project) would construct approximately 0.65 mile of trail from the HWD historic pump house facilities up to the ridgeline to connect to the bench cut for the historic flume and the trail along the ridgeline will connect to the existing flume trail and then to the road around Lake Jennings. A parking area would be constructed along El Monte Road, and other trail head facilities would be constructed within the HWD historic pump house facilities property to provide for safe trail access. Fencing would be erected at several locations to control public access. The construction and maintenance of the proposed project will involve vegetation removal and trimming as well as some minor grading and ground disturbance. The proposed trail is 6-feet in width with occasional turnouts that will be 4 feet wide. Brush management requirements for the proposed project will consist of two feet on either side of the proposed trail. The impact footprint for the proposed project is a 10-foot wide area (16- feet at turnouts).

The following sensitive vegetation communities would be directly impacted by the proposed trail alignment: Diegan coastal sage scrub (0.829 acre) and non-native grassland (0.260 acre). Impacts to sensitive vegetation communities will be mitigated through the off-site restoration at the following ratios: 1.5:1 for Diegan coastal sage scrub (County Tier 2) and 1:1 for nonnative grassland (County Tier 3), following mitigation ratios presented in the County's Biological Mitigation Ordinance (BMO).

Focused surveys for special-status plant species were not conducted. One County List D plant species, San Diego sunflower (*Bahiopsis laciniata*), was detected within the survey area during the general biological surveys.

Direct impacts to approximately 50 individuals of San Diego sunflower could occur through vegetation removal and ground disturbance activities. In addition, if present within the project area, other special-status plant species may be removed as a result of vegetation removal and grading activities. Impacts to special-status plant species, including San Diego sunflower, could be avoided during final trail design and construction. If avoidance is not feasible, impacts to County List A and B species will not exceed 20% of the population off-site and impacts to County List C and D species will be mitigated on a habitat-basis as required by the BMO. Therefore, the potential minimal impacts resulting from the proposed project would not impact the regional long-term survival of special-status plant species in the project area.

Special status wildlife species observed or detected within the survey area include Cooper's hawk (*Accipiter cooperii*), osprey (*Pandion haliaetus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), San Diego desert woodrat (*Neotoma lepida intermedia*), and southern mule deer (*Odocoileus hemionus*). The project's impacts to suitable habitat for these species total approximately 1.089 acres. Such impacts would not affect the regional long-term survival of these fairly widespread species. To avoid and minimize potential impacts to special-status species, pre-construction training for construction crews will be conducted to address sensitive species that occur or have potential to occur along the proposed trail.

The construction of the proposed project could result in impacts to sensitive vegetation communities, animals, and plant species through increasing human access to the site. The proposed western portion of the Historic Flume Trail will eventually connect to the eastern portion of the Historic Flume trail, which connects to the DPR's El Monte County Park Trail, located within El Monte County Park. A Resource Management Plan (RMP) has been prepared for El Monte County Park (County of San Diego Department of Parks and Recreation 2009), which identifies Area-Specific Management Directives aimed at preserving and enhancing biological resources within El Monte County Park. Ongoing maintenance and monitoring of the proposed western portion of the Historic Flume Trail and trailhead will occur during implementation of the El Monte County Park RMP. The proposed western portion of the Historic Flume Trail and trailhead will be patrolled by DPR park rangers who will identify unauthorized trail use or other adverse effects associated with increased human use (e.g., trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts.

The project area provides suitable habitat for nesting birds and raptors and the proposed project could impact the nesting success of tree- or ground-nesting raptors if grading, clearing, or other noise generating activities would occur during their breeding season, defined as January 15 to July 15 and February 1 to July 31, respectively. In order to mitigate potentially significant impacts to the nesting success of wildlife species, vegetation clearing or grading shall be restricted during the breeding season unless pre-construction surveys by a qualified biologist determine no nesting birds or raptors would be impacted by the proposed work. If active nests are identified within the impact area, vegetation clearing activities shall not occur within 300 feet of active bird nests, 500 feet of tree-nesting raptor nests, and 800 feet of ground-nesting raptor nests until either the breeding season has ended or the nest is no longer active.

The coastal California gnatcatcher (*Polioptila californica californica*) and San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegonensis*) are known from the survey area from USFWS records (USFWS 2014a). California gnatcatchers and San Diego cactus wren were not observed in the

survey area during the biological reconnaissance surveys but have potential to nest within onsite Diegan coastal sage scrub and prickly pear cactus, respectively. The construction of the proposed project would result in impacts to suitable habitat for these species. In order to reduce potential impacts to the California gnatcatcher and San Diego cactus wren, all brushing, clearing and/or grading will be restricted (i.e., none will be allowed) within 300 feet of coastal sage scrub habitat during the breeding season of the California gnatcatcher (March 1 – August 15) or within 300 feet of prickly pear cactus during the cactus wren breeding season (February 15 to August 15). The Director of Parks and Recreation may waive this condition, through written concurrence from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) that no California gnatcatchers or San Diego cactus wrens are present within the vicinity based on a pre-construction survey conducted within one week of project initiation.

PROJECT DESCRIPTION, LOCATION, AND SETTING

Project Location

The proposed project is located within El Monte Valley/Lakeside, San Diego County, CA (Figures 1 and 2). The project is located on the south side of El Monte Road. The survey area consists of Helix Water District (HWD) land, specifically the southwest portion of APN 391-061-01 extending from the proposed parking area up the ridgeline to the bench cut for the historic flume; portions of APNs 396-140-33 and 396-220-32; and the northern portion of APN 395-150-01 extending from the northern portion of Lake Jennings north to APN 391-061-01. In addition, the parking area will be located on APN 395-022-10 and potentially 395-022-09. The proposed project is located within the Metro/Lakeside/Jamul segment of the approved Multiple Species Conservation Program Subarea Plan (MSCP SAP).

Project Description

The proposed San Diego River Trail Segment – El Monte Road to Historic Flume and Lake Jennings Campground Connection Project (project) is grant-funded by the San Diego River Conservancy (SDRC) through Proposition 40 River Parkways funding. The purpose of the proposed project is to provide a public trail connection from El Monte Road to Lake Jennings Campground. The need for the connection is identified in the SDRC's San Diego River Trail Gap Analysis Report as Gap 59 "El Monte Road to Flume." The project involves construction of a trailhead, parking area and approximately two miles of multi-use trail for hiking, biking and equestrian users. Public access will be provided via a new access gate along El Monte Road at the western terminus of the project site, and via existing trails at Lake Jennings Campground at the eastern terminus of the project site.

The project will be constructed by the County of San Diego (County) Department of Parks and Recreation (DPR) on property owned by HWD. The project includes dedication of an easement from HWD to County DPR to acquire the trailhead, parking area and a 20-foot-wide trail corridor. Another condition of the project is for SDRC and/or HWD to abate any lead/asbestos hazards in the project area prior to County DPR constructing the project; County DPR will not open the site for public use until abatement has been completed. Project construction is anticipated to begin in fall 2015 and conclude in spring 2016. County DPR will be responsible for maintenance and management of the easement in perpetuity, consistent with the management directives outlined in the El Monte Regional

Park Resource Management Plan. Long-term maintenance of lead/asbestos abatement measures will be the responsibility of HWD and/or SDRC.

The trailhead and parking area will be constructed entirely within HWD's existing storage yard (Figure 3). A directional sign will be installed at the new access gate to guide the public to the trail and to acknowledge the source of funds. Chain link fencing will be installed to delineate the trailhead and parking boundary and to prevent public access to the remaining operating areas of HWD's storage yard. Approximately three public parking spaces will be constructed inside the area using stabilized decomposed granite. The historic pumphouse at the northern corner of the parking area will remain in place; SDRC and/or HWD will abate the minimal lead-based paint on a small portion of the wood siding on the pumphouse. Lodge pole fencing and interpretive signage will be installed near the pumphouse to protect the cultural resource and to provide public educational opportunities. The existing dilapidated shed adjacent to the pumphouse will be abated by HWD and/or SDRC prior to the trailhead and parking areas being opened for public use. The trailhead will be located at the southern corner of the parking area at the base of the hill. Directional signage will be posted to demarcate the trailhead.

The trail corridor is planned as a Type B Rural Trail per the County's Community Trails Master Plan (2005) with a six-foot width (four feet wide with one-foot shoulders on each side) and up to 15 percent running slopes (Figure 3). The trail corridor includes occasional turnouts that will be four feet wide. Brush management requirements for the project will consist of two feet on either side of the trail, so the impact footprint for the trail corridor is 10 feet wide. The trail will be established by clearing vegetation for the new trail path that will traverse up the hillslope, and by maintaining the existing bench cut of the historic San Diego flume alignment along the ridgeline of the hill. Vegetation will also be cleared to establish the trail connector from the flume alignment to the existing trail at Lake Jennings Campground. The deteriorated segments of the existing barbed wire fencing along portions of the trail corridor will be removed and replaced with lodge pole fencing for public safety and aesthetic purposes. The existing above-ground historic pipeline will be visible from portions of the trail corridor along the hillslope. Chain link fencing will be installed by HWD and/or SDRC around the pipeline to prevent the public from disturbing the resource. Additional lodge pole fencing and directional and interpretive signage will be strategically placed along portions of the trail to protect cultural and biological resources and to provide recreational and educational opportunities for users.

Study Methods

Prior to conducting surveys for the proposed project, searches of available literature and databases were conducted to determine sensitive species previously detected or with potential to occur in the survey area as well as the physical characteristics of the site and surrounding areas. Available data that were reviewed included the California Natural Diversity Database (CNDDB; CDFW 2014a; El Cajon, El Cajon Mountain, Poway, San Pasqual, Alpine, San Vicente Reservoir, National City, Jamul Mountains, and Dulzura quadrangles), the U.S. Department of Agriculture (USDA) soil survey of the area (USDA 1973), the baseline biodiversity report prepared for El Monte County Park (Jones & Stokes 2008), and the biological resources letter report for the Flume Trail Project (ICF 2012).

The survey area for the project consists of the northwest portion of the HWD Lake Jennings Property and the Historic Pump House lot (Figure 3).

ICF Biologist Dale Ritenour conducted a site visit on November 25, 2014 to categorize and map the vegetation communities within the survey area, and to assess the habitat suitability for special-status plant and animal species, and record general wildlife species (Table 1). The survey area was walked throughout in an effort to map vegetation communities and assess areas with potential for sensitive species. Vegetation communities were mapped on a 150 -foot scale aerial photograph in the field and later digitized into a geographic information system (GIS) using ESRI ArcGIS software. General habitat mapping and vegetation communities were categorized using standard County classifications (Oberbauer 2008). All plant species observed were noted, and plants that could not be verified in the field were identified later using The Jepson Manual, 2nd ed. (Baldwin et al. 2012). Plants without diagnostic structures present were identified to species level. Mr. Ritenour conducted an additional site visit on June 15, 2015.

Table 1. Survey Date and Conditions

Date	Time	Biologist	Survey Type
11-25-14	1200-1700	Dale Ritenour	General survey, vegetation mapping
6-15-15	1000-1200	Dale Ritenour	General survey

During the general survey, all wildlife species observed or detected during the field survey by sight, vocalizations, burrows, tracks, scat, or other signs were recorded. Binoculars were used to aid in the identification of observed wildlife. In addition to species actually observed, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the vicinity of the proposed project area. The survey effort did not include focused surveys for special-status plant or wildlife species

Due to the timing of the surveys, the detectability of many annual herbaceous species was low. Additionally, as focused faunal surveys were not conducted, the sensitive species that occur within the habitat-types onsite cannot be determined to be absent. Nocturnal wildlife species would also not have been readily detected as only daytime surveys were conducted. Complete lists of plant and wildlife species observed within the survey area are provided as Attachments 2 and 3, respectively.

Environmental Setting

The proposed trail alignments run from the HWD historic pump house property to the Lake Jennings perimeter trail and the historic flume alignment. Surrounding land uses include residential and open space. Elevations within the survey area vary from approximately 440 feet above mean sea level (AMSL) to 860 feet AMSL. The San Diego River Valley exists immediately north of the survey area.

The survey area is primarily Friant rocky fine sandy loam, 30 to 70 percent slopes (Figure 4). Tujunga sand and Friant fine sandy loam, 30 to 50 percent slopes also exist in the survey area in small amounts. The Friant and Tujunga series, as defined by the U.S. Department of Agriculture (USDA 1973), are discussed below.

The ***Friant*** soil series is characterized as shallow, well –drained fine sandy loams formed in material weathered from fine-grained metasedimentary rock. Friant rocky fine sandy loam, 30 to 70 percent slopes are soils 3 to 12 inches deep over hard rock. Friant fine sandy loam, 30 to 50 percent slopes

are steep soils on mountainous uplands. Water permeability is moderately high, and runoff is rapid. Erosion hazard is high. Rock outcrops are common in this soil type.

The *Tujunga* soil series consists of very deep excessively drained sands derived from granitic alluvium. These soils are on alluvial fans and flood plains, and have slopes of 0 to 5 percent.

No sensitive soils occur within the survey area.

Regional Context

The proposed project is located within the approved MSCP SAP within a mapped Pre-Approved Mitigation Area (PAMA). The project area abuts large preserve areas including the Lake Jennings Campground. Patches of Unincorporated Land within the Metro-Lakeside-Jamul Segment of the MSCP SAP occur in the immediate project vicinity.

HABITAT & VEGETATION COMMUNITIES

The total survey area is 51.86 acres and supports a variety of vegetation communities (Figure 3). The vegetation communities were mapped to assess both plant and wildlife impacts. Vegetation communities were described and assigned numerical codes according to the Draft Vegetation Communities of San Diego County (Oberbauer 2008). Vegetation communities present within the survey area consist of Diegan coastal sage scrub, non-native grassland, non-native woodland, disturbed habitat, and urban/developed land (Table 2). A description of the vegetation communities and the dominant plant species detected during the survey are found below.

Table 2. Vegetation Communities within the Survey Area

Vegetation/Land Cover Type	Habitat Tier	Acreage
Diegan Coastal Sage Scrub	II	31.18
Non-native Grassland	III	17.38
Non-native Woodland	IV	0.26
Disturbed Habitat	IV	0.34
Urban/Developed	N/A	2.71
	Total	51.86

Diegan Coastal Sage Scrub: 32500 (31.18 acres)

Diegan coastal sage scrub is a native habitat type composed of a variety of soft, low, aromatic shrubs characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs including lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and toyon (*Heteromeles arbutifolia*). It typically develops on south-facing slopes and other xeric situations (Holland 1986).

The Diegan coastal sage scrub occurring within the survey area has several distinct vegetative components. The southwest-facing slope above the pump house facility is co-dominated by San Diego sunflower, which is a County List D species, and California sagebrush. The north facing slopes are dominated by laurel sumac, California sagebrush, and bush monkeyflower (*Mimulus aurantiacus*). The south facing slopes around Lake Jennings are dominated by laurel sumac, California sagebrush, and California buckwheat. Diegan coastal sage scrub is considered a Tier II sensitive vegetation community in San Diego County and provides habitat for a variety of sensitive plant and wildlife species.

Non-native Grassland: 42200 (17.38 acres)

Non-native grassland is characterized by a dense to sparse cover of annual grasses reaching up to 1 meter (3 feet), which may include numerous native wildflowers, particularly in years of high rainfall. These annuals germinate with the onset of the rainy season and set seeds in the late spring or summer. This community is usually found on fine-textured soils that range from being moist or waterlogged in the winter to being very dry during the summer and fall (Holland 1986). Non-native grasslands, in many circumstances, have replaced native grasslands as a result of disturbance (manmade [e.g. mechanical disturbance] or natural [e.g. fire]). Dominant species that characterize the nonnative grassland within the survey area include red brome (*Bromus rubens*) and field mustard (*Hirschfeldia incana*).

Some of the non-native grassland may be the result of habitat type conversion after the 2003 wildfire. Nonnative grassland is considered a Tier III sensitive vegetation community in San Diego County and provides habitat for a variety of sensitive plant and wildlife species, and provides foraging opportunities for sensitive raptor species.

Non-native Woodland: 79000 (0.26 acre)

Non-native woodland is characterized by exotic trees which are not maintained or artificially irrigated. Within the survey area, this community consists of Peruvian pepper trees (*Schinus molle*) with an understory of annuals including red brome. This community is not considered sensitive by any local, state, or federal agencies.

Disturbed Habitat: 11300 (0.34 acre)

Disturbed habitat includes areas that have been physically disturbed and are no longer recognizable as a native vegetation association. Disturbed habitat includes areas that have been graded, cleared for fire management, or experience repeated use that prevents natural revegetation. Within the survey area, this land cover includes areas cleared on a residential lot. This land cover type is classified as Tier IV and has limited ecological value due to lack of natural habitat elements. This land cover type is not considered sensitive by any local, state, or federal agencies.

Urban/Developed: 12000 (2.71 acres)

Developed land within the survey area includes the historic pump house and associated structures and ornamental trees associated with the pump house lot. This land cover type has a low ecological

value due to the lack of natural habitat elements. This land cover type is not considered sensitive by any local, state, or federal agencies.

SPECIAL STATUS SPECIES

The following section discusses special status species observed or detected within the survey area, as well as special status species with potential to occur. A special status species is one that is listed by federal or state agencies as threatened or endangered; listed on the California Rare Plant Ranking (Formerly California Native Plant Society List [i.e., CRPR 1, 2, 3, and 4 Plant Species]); or is included on the County's Sensitive Plant (List A, B, C, or D Plants) or Animal (Group I and II) list.

SPECIAL STATUS PLANT SPECIES

The CNDDDB search, CNPS search, and field surveys identified 78 sensitive plant species that occur, have potential to occur, or have been historically observed in the regional vicinity (Attachments 2 and 4). The CNDDDB and CNPS searches were conducted for the El Cajon, Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura quadrangles (CDFW 2014; CNPS 2014). One special status plant species, San Diego sunflower, was detected within the survey area. Special status plant species identified during the literature search are outlined in Attachment 4, along with their potential to occur within the survey area. Discussions of the plant species incorporate information from Reiser (2001), CNPS (2014), and Baldwin et al. (2012). Plant species observed within the survey area are discussed below. No sensitive plant species were assessed to have high potential to occur. The trail alignment was inspected for sensitive plants, and San Diego sunflower (*Bahiopsis laciniata*) was the only sensitive shrub or succulent species observed within the trail alignment

Special Status Plant Species Observed

San Diego sunflower is a CRPR 4.2 and County List D species. It is a shrub in the aster family that can be dominant in Diegan coastal sage scrub in southern San Diego County away from the immediate coast (Reiser 2001). It is uncommon in other sage scrub communities in Orange County and northern San Diego County. This species was a co-dominant in the Diegan coastal sage scrub on the western side of the biological survey area and was present in the hundreds (Figure 5).

SPECIAL STATUS WILDLIFE SPECIES

The CNDDDB search and field survey identified 78 sensitive wildlife species that occur or have potential to occur in the project vicinity (Attachments 3 and 5). The CNDDDB search was conducted for the El Cajon, Poway, San Vicente Reservoir, El Cajon Mountain, La Mesa, Alpine, National City, Jamul Mountains, and Dulzura (CDFW 2014). Special status wildlife species detected within the survey area consist of: Cooper's hawk (*Accipiter cooperii*), osprey (*Pandion haliaetus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) San Diego desert woodrat (*Neotoma lepida intermedia*), and southern mule deer (*Odocoileus hemionus*). Sensitive wildlife species identified during the literature search are outlined in Attachment 4, along with their potential to occur within the survey area. Species observed within the survey area and species with a high potential to occur area are discussed below. No wildlife species were assessed to have moderate potential to occur.

Special Status Wildlife Species Observed

Osprey is a County Group 1 species known to occur near water bodies in San Diego County. This species was observed overhead during the general biological survey. Marginally suitable nesting trees occur within the historic pump house lot. This species would not be expected to forage within the survey area.

Cooper's hawk is a County Group 1 and MSCP covered species associated with riparian deciduous habitats and oak woodlands. This species was observed foraging over the survey area. Suitable foraging and breeding habitat for this species occur within the survey area.

Southern California rufous-crowned sparrow is a County Group 1 and MSCP covered species resident in coastal sage scrub and chaparral. This species was observed in sagebrush during the general biological survey. Diegan coastal sage scrub onsite is suitable habitat for this species.

San Diego desert woodrat is a County Group 2 species that nests in rock outcrop, cactus patches, and other protected locations. This species was observed in prickly pear cactus patches throughout the western side of the survey area.

Southern mule deer is a County Group 2 and MSCP covered species known to occur throughout San Diego County. Track and sign of this species was observed throughout the survey area.

Special Status Wildlife Species with High Potential to Occur

Coastal California gnatcatcher is a federally-threatened, County Group 1, and MSCP covered species resident in Diegan coastal sage scrub. This species has been previously recorded in the survey area (USFWS 2014a). Suitable nesting and breeding habitat exist within Diegan coastal sage scrub within the survey area.

San Diego cactus wren is a California Species of Special Concern, County Group 1 and MSCP covered species resident in cactus thickets in coastal San Diego County. This species has been previously recorded in the survey area (CDFW 2014). Potentially suitable prickly pear cactus patches (*Opuntia littoralis*) exist within the Diegan coastal sage scrub on the west side of the survey area. The trail alignment avoids the most suitable prickly pear cactus stands.

Orange-throated whiptail (*Aspidoscelis hyperythra*) is a California Species of Special Concern, County Group II, and MSCP covered species associated with arid and semiarid desert habitats to open woodlands with sparse vegetation. Orange-throated whiptails have been observed in similar habitat in the vicinity (CDFW 2014).

Coastal western whiptail (*Aspidoscelis tigris stejnegeri*) is a County Group II species associated with arid and semiarid desert habitats to open woodlands with sparse vegetation. Coastal western whiptail has been observed in similar habitat in the vicinity (CDFW 2014).

Coast horned lizard (*Phrynosoma blanvillii*) is a County Group II and MSCP covered species normally found associated with harvester ants, in a variety of vegetation communities. Harvester ants were observed within the survey area and the habitat is appropriate for this species.

Red diamond rattlesnake (*Crotalus ruber*) is a County Group II species associated with arid and semiarid desert, scrub, and chaparral habitats. This species has been recorded in the vicinity and the open sage scrub habitat on-site, with rock outcrops, is prime habitat for this species (CDFW 2014).

Other Highly-Sensitive Wildlife Species with Potential to Occur

The **Quino checkerspot butterfly** (Quino) is a federally-endangered and County Group 1 species that breeds in grasslands and in openings in coastal sage scrub and chaparral. While this species has become regionally rare and has a low potential to occur on site, its' extremely sensitive nature and federally-endangered listing status make it suitable for consideration. No Quino host plants were observed during general biological surveys and limited nectar resources were observed. This site has non-excludable areas for Quino and is within the USFWS Recommended Quino survey area (USFWS 2014b).

The **southwestern arroyo toad** is a federally-endangered, County Group 1, and MSCP covered species that breeds in backwaters and slow-moving pools in sandy river terraces. The HWD historic pump station property is within the mapped critical habitat for arroyo toad. Primary Constituent Elements (PCEs) of critical habitat for arroyo toad include 1) rivers with sufficient hydrology to support breeding, 2) low-gradient streams with fine substrates and shallow pools 3) a natural flooding regime, 4) upland habitats of sufficient quality to provide foraging for adult toads and 5) few nonnative species that prey upon arroyo toads 6) habitats where manmade barriers do not substantially impede dispersal, and habitats with limited human-related disturbance (F.R. V.66 No 26, 2001). The HWD historic pump station property has marginal upland habitat for foraging, as it is extremely open with few herbaceous or shrubby plants. This upland habitat is all on the far side of El Monte Road, a high-speed country road which would potentially cause mortality for individual arroyo toads attempting to leave the San Diego River Valley. The HWD historic pump station property does not have the necessary PCEs to support breeding arroyo toad.

JURISDICTIONAL WETLANDS AND WATERWAYS

Wetlands and other waters are considered to be sensitive biological resources and are protected by various federal, state, and local regulations. The U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB) regulate waters of the U.S., including wetlands, under the authority of Sections 404 and 401, respectively, of the federal Clean Water Act (CWA). The term "waters of the U.S." encompasses many types of waters, including waters currently or historically used in interstate or foreign commerce; all waters subject to the ebb and flow of tides; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including ephemeral and intermittent streams), mudflats, sandflats, wetlands, sloughs, etc., the use, degradation or destruction of which could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the U.S.; tributaries of waters of the U.S.; territorial seas; and wetlands adjacent to waters of the U.S. (USACE 1987). Under the Porter-Cologne Act, the RWQCB's jurisdiction also includes isolated wetlands and other waters that are not jurisdictional under the CWA. The CDFW takes jurisdiction over lakes, rivers, and streams under Section 1600 et seq. of the Fish and Game Code.

The USACE defines wetlands as areas that are dominated by hydrophytic plant species, exhibit wetland hydrology, and have hydric soils. Areas that do not meet these criteria but exhibit a defined

channel are considered non-wetland waters of the U.S. CDFW jurisdiction extends across the ordinary high water mark of these features and includes areas beneath a riparian canopy, even if the canopy areas are well away from the stream channel (such as in riparian areas). The RWQCB takes jurisdiction of waters of the U.S. as defined by the USACE as well as other surface waters, which include isolated wetlands (e.g., vernal pools) and stream channels.

No potentially jurisdictional wetland features were observed within the survey area. No impacts to jurisdictional resources would occur as a result of the proposed project.

WILDLIFE CORRIDORS AND LINKAGES

Wildlife movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas, and facilitate the exchange of genetic traits between populations.

Another important consideration is the setting of a project site with respect to regional connectivity with other undeveloped lands. Large blocks of contiguous habitat are important to support resident populations of plants and wildlife as well as to provide suitable conditions for wildlife movement and dispersal.

The proposed El Monte Trail Segment is adjacent to the San Diego River, which connects developed lands in San Diego to undeveloped areas in San Diego County. The proposed trail occurs on natural land which connects the San Diego River valley to the relatively permanent water of Lake Jennings. The project area provides local movement for a wide range of wildlife including mule deer, coyote, bobcat, and mountain lion. Consequently, the project area is considered to be part of a core area or regional linkage of importance.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

Given the limited extent of the anticipated impacts to sensitive biological resources associated with the proposed project, discussions of project impacts, analysis of the significance of such impacts, and anticipated mitigation requirements are combined in this section for ease of analysis. Potential impacts to vegetation communities, sensitive plants, sensitive wildlife, and other sensitive resources such as wildlife corridors are discussed separately to follow the County's significance criteria.

IMPACT DEFINITIONS

Biological resource impacts can be considered direct, indirect, or cumulative. They will also be either permanent or temporary in nature.

- **Direct:** Direct impacts occur when biological resources are altered, disturbed, or destroyed during project implementation. Examples include clearing vegetation, encroaching into wetland buffers, diverting surface water flows, and the loss of individual species or their habitats.

- Indirect: Indirect impacts occur when project-related activities affect biological resources in a manner that is not direct. Examples include elevated noise and dust levels, increased human activity, decreased water quality, and the introduction of invasive wildlife (i.e., domestic cats and dogs) and plants.
- Cumulative: Cumulative impacts occur when biological resources are either directly or indirectly impacted to a minor extent as a result of a specific project, but the project-related impacts are part of a larger pattern of similar minor impacts. The overall result of these multiple minor impacts from separate projects is considered a cumulative impact to biological resources.
- Temporary: Temporary impacts can be direct or indirect and are considered reversible. Examples include the removal of vegetation from areas that will be revegetated, elevated noise levels, and increased levels of dust.
- Permanent: Permanent impacts can be direct or indirect and are not considered reversible. Examples include the removal of vegetation from areas that will have permanent structures placed on them or landscaping an area with nonnative plant species.

Potentially significant impacts to each sensitive biological resource are analyzed below. The direct project impact area is limited to a generally 10-foot-wide area along the proposed 0.65 -mile trail, with a total of impact of 0.877 acre. The discussion below addresses anticipated impacts resulting from development of the proposed trail (including two feet of brush clearance on either side of the trails).

SPECIAL STATUS SPECIES

Significance Criteria

A project would have a potentially significant effect on biological resources if:

The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Specifically, any of the following conditions would be considered significant:

- A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
- B. The project would impact the regional long-term survival of a County Group A or B Plant Species, or a County Group I Animal Species, or a species listed as a state Species of Special Concern.
- C. The project would impact the regional long-term survival of a County Group C or D Plant Species or a County Group II Animal Species.
- D. The project may impact arroyo toad aestivation or breeding habitat.
- E. The project would impact golden eagle habitat.
- F. The project would result in a loss of functional foraging habitat for raptors.

- G. The project would increase noise or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
- H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more, not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.
- I. The project would increase human access or predation or competition from domestic animals, pests, or exotic species to levels that would adversely affect sensitive species.
- J. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, or noise generating activities such as construction.

Analysis of Project Effects

Each of the significance criteria listed above is discussed below with respect to the proposed project's anticipated effects. Those criteria for which impacts are not anticipated are discussed briefly at the end of the section followed by mitigation measures for potentially significant impacts. Unless otherwise noted, impacts resulting from the two project alternatives would be equal.

Sensitive Plant Impacts

- A, B. Focused rare plant surveys were not conducted for the proposed project. While federally or state listed endangered or threatened species were not observed, there is a low potential for listed plant species to occur in the project area (see Attachment 4). Impacts to listed or CRPR list 1 or 2 species are unlikely, because of the low likelihood of the species on the soil types and aspects present in the project area. Impacts to listed species would be considered significant and would require mitigation.
- C. Focused rare plant surveys were not conducted for the proposed project. However, one special status plant species, San Diego sunflower (CRPR 4.2 and County List D), was observed within the survey area during the general biological survey. This species is a dominant plant in the Diegan coastal sage scrub on the west side of the survey area, and is a common, widespread plant in the remaining Diegan coastal sage scrub in southwestern San Diego County and prevalent within the Biological Study area on the HWD property. Impacts to this species as a result of trail construction or brush management would not affect the regional long-term survival of this species.

Other sensitive plant species (County List C or D) have a low to moderate potential to occur. As none of the species were observed during general surveys within the biological study area, it is unlikely a regionally significant population occurs within the proposed trail alignment.

Sensitive Wildlife Impacts

- A. Focused bird surveys were not conducted for the proposed project but one federally-listed threatened species, California gnatcatcher, has a high potential to occur within the survey area. Impacts to suitable habitat for this species associated with development of the proposed trail

alignment would include 0.829 acre of coastal sage scrub. Direct impacts to listed species would be considered significant.

- B, C. Sensitive wildlife species detected during the surveys included County Group I species: osprey, Cooper's hawk, and Southern California rufous-crowned sparrow, and County Group II species San Diego desert woodrat and southern mule deer. Potential impacts to suitable habitat for these species associated with development of the proposed trail alignment would be limited to 0.829 acre of coastal sage scrub and 0.260 acre of nonnative grassland. Total direct impacts to approximately 1.089 acre of potentially suitable habitat for County Group I or II wildlife species would not impact the regional long-term survival of these widespread species. Therefore, impacts to County Group I or II wildlife species would not be considered significant.
- I. Construction and use of the proposed trail could result in impacts to sensitive species through increasing human access and domestic animal activity. Increased access could result in indirect impacts to undisturbed areas along the trail associated with unauthorized activity or wildlife predation or disruption of nesting activities by domestic animals. Such impacts would be considered potentially significant.

The project would not involve introduction of invasive species (e.g., nonnative, invasive landscaping), pests, or exotic species to the site, and weed species associated with trail-side spread are already present onsite (Attachment 2). Therefore, impacts associated with introduced exotic species are not anticipated.

- J. The project area provides suitable habitat for nesting birds and raptors and the project could impact the nesting success of tree- and/or ground-nesting raptors if grading, vegetation clearing, or other noise generating activities would occur during their breeding season, defined as January 15 to July 15 and February 1 to July 31, respectively. Such impacts could result in removal of active nests or disruption in breeding success due to disturbance of breeding behaviors. Such impacts would be considered significant.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

- D. Suitable breeding habitat for arroyo toad was not observed within the survey area.
- E. Raptors and golden eagles are known to occur in the project vicinity and suitable foraging habitat (0.829 acre of grasslands and 0.260 acre of Diegan coastal sage scrub) are located within the project area. Impacted habitat could still potentially serve as foraging habitat for raptors. Impacts would not be considered significant as they would not threaten the long-term success of raptors or golden eagles. Impacts to nest locations known to occur off-site near El Cajon Mountain not anticipated.
- F. While raptors were observed within the survey area and suitable foraging habitat (17.38 acres of grasslands) are located within the survey area, impacts to this habitat would be minimal and would not contribute to a loss of functional foraging habitat for raptors. The trail will continue to function as foraging habitat for raptors. The surrounding lands are in long-term Preserves that will be maintained and managed in perpetuity with the intent of minimizing development and

protecting on-site resources. These areas provide ample foraging habitat for raptors in the vicinity of the proposed project.

- G. The proposed project does not propose nighttime lighting. In addition, noise levels associated with proposed project construction or operation (i.e., trail usage) is not anticipated to result in levels above ambient that would adversely affect special status wildlife species.
- H. While the proposed project area would be considered part of a core wildlife area (Lake Jennings/Wildcat Canyon- El Cajon Mountain Core Resource Area), the limited impacts associated with the proposed project would not impact the viability of the site to function as a core wildlife area. Similarly, indirect impacts associated with trail use will not affect the viability of the site to function as a core wildlife area. Wildlife will continue to be able to move within and through the core area, particularly at night when human usage will be low.

Mitigation Measures and Design Considerations

- A. In order to reduce potential impacts to the California gnatcatcher to less than significant and to comply with the County's Biological Mitigation Ordinance, all brushing, clearing and/or grading will be restricted (i.e., none will be allowed) within 300 feet of coastal sage scrub habitat during the breeding season of the California gnatcatcher (March 1-August 15). The Director of Parks and Recreation may waive this condition, through written concurrence from the U. S. Fish and Wildlife Service and the California Department of Fish and Game that no California gnatcatcher are present in the vicinity of the brushing, clearing or grading, based on a field survey completed within one week of the proposed onset of ground disturbance.
- B,C, I. Pre-construction training for construction crews will be conducted to address sensitive species that occur or have potential to occur along the proposed trail.
- C. The trail alignment shall avoid impacts to County Group D plant species, to the extent feasible, which includes project design and construction methodology (e.g., minimal ground disturbance avoiding sensitive shrubs where feasible, etc.). San Diego sunflower will be included as a dominant species in the El Monte Park mitigation areas and more individuals will be planted than will be impacted by trail development.
- I. Ongoing maintenance and monitoring of the proposed Flume Trail connector will occur during implementation of the El Monte County Park RMP. The proposed Flume Trail will be patrolled by Park Rangers who will identify unauthorized trail use or other adverse effects associated with increased human use (e.g. trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts resulting from increased human use on the site or competition from domestic animals.
- J. Potentially significant impacts on the nesting success of tree- and/or ground-nesting raptors shall be mitigated through seasonal restrictions and pre-construction surveys. In order to mitigate potentially significant impacts to nesting success of tree- and/or ground-nesting raptors, vegetation clearing or grading shall be restricted during the breeding season (January 15-July 15 and February 1 to July 31, respectively, annually) unless pre-construction surveys by a qualified biologist determine no nesting raptors would be impacted by the proposed work. If active nests are identified within the impact area, vegetation-clearing activities shall not

occur within 500 feet of tree-nesting raptor nests and 800 feet of ground-nesting raptor nests until either the breeding season has ended or the nest is no longer active.

RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES

Significance Criteria

A project would have a potentially significant effect on biological resources if:

The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Specifically, any of the following conditions would be considered significant:

- A. Project-related construction, grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.
- B. Any of the following will occur to, or within, jurisdictional wetlands or riparian habitats as defined by USACE, CDFW and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; or any activity that may cause an adverse change in native species composition, diversity and abundance.
- C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.
- D. The project would increase human access or competition from domestic animals, pests, or exotic species to levels proven to adversely affect sensitive habitats.
- E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Analysis of Project Effects

Each of the significance criteria listed above are discussed below with respect to the proposed project's anticipated effects. Those criteria for which impacts are not anticipated are discussed briefly at the end of the section.

- A. Direct impacts to sensitive habitat associated with development of the proposed trail and associated brush clearing would consist of 0.829 acre of coastal sage scrub and 0.260 acre of nonnative grassland (Table 3). Impacts to coastal sage scrub and nonnative grassland communities would be considered significant and will require mitigation.

A total of 0.321 acre of developed lands occurs within the impact area for the proposed parking and staging area, and a total of 0.016 acre of nonnative woodland occurs along the flume trail. These land cover types are not considered sensitive and direct impacts associated with construction, grading, clearing, or other activities would not be considered significant.

Table 3. Direct Project Impacts

Vegetation/Land Cover Type	Impacts (Acres)		
	Proposed Trail Corridor	Pipeline Fence	Total
Diegan Coastal Sage Scrub	0.738	0.091	0.829
Nonnative Grassland	0.233	0.027	0.260
Nonnative Woodland	0.016		0.016
Developed	0.320	0.001	0.321
		Total	1.426

- D. Construction of the proposed project could result in impacts to sensitive habitat through increasing human access to the site. Such human-related impacts could include destruction of vegetation through trampling and unauthorized off-trail use. Impacts associated with increased human activity on the site and competition from domestic animals would be considered potentially significant. The project would not intentionally introduce pests or exotic species to the site.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

- C. The project would involve minimal water use and would not draw down the groundwater table to the detriment of groundwater-dependent habitat.

B,E. Jurisdictional features do not occur within the proposed project area.

Mitigation Measures and Design Considerations

Mitigation measures discussed below correspond to impacts discussed above under guidelines A and D. Table 4 outlines the impacts to sensitive vegetation communities, required mitigation ratios, and how the identified mitigation will be accomplished.

- A. Significant impacts to 0.829 acres of coastal sage scrub and 0.260 acre of nonnative grassland associated with development of the proposed trail will be offset by the off-site restoration of habitat of the same or higher Tier than the habitat impacted, at the following BMO ratios:

- 1.5:1 for Diegan coastal sage scrub
- 1:1 for nonnative grassland

Temporary brush trimming impacts associated with fence construction around the pipeline will be allowed to revegetate naturally. No blading or vehicular impact will occur within the 3-foot wide temporary impact corridors and surrounding species are expected to revegetate the temporarily impacted areas. Impacts to nonnative grassland associated with fenceline construction

Mitigation for trail impacts to sensitive vegetation will be accomplished by the restoration of 1.386 acres of nonnative grassland, on the El Monte Park, to Diegan coastal sage scrub (with San Diego sunflower, California sagebrush, and prickly pear as prominent species in the plant palettes) (Table 4).

Table 4. Proposed Mitigation

Vegetation/Land Cover Type	Impacts (Acres)	Mitigation Ratio	Restoration in Place	Proposed Off-Site Mitigation
Diegan Coastal Sage Scrub	0.829	1.5:1	0.091 acre of Tier II Diegan coastal sage scrub habitat	1.153 acre of Tier II Diegan coastal sage scrub habitat
Nonnative Grassland	0.260	1:1	0.027 acre of Tier II Diegan coastal sage scrub habitat	0.233 acre of Tier II Diegan coastal sage scrub habitat
Nonnative Woodland	0.016	N/A	N/A	N/A
Developed	0.321	N/A	N/A	N/A
Total	1.426		0.118 acre	1.386 acres

- D. DPR will manage and reduce off-trail impacts. The proposed trail will be patrolled by Park Rangers who will identify unauthorized trail use or other adverse effects associated with increased human use (e.g., trash). Such issues will be addressed through construction of fence segments, installation of signs, or other means to prevent ongoing impacts resulting from increased human use on the site or competition from domestic animals.

JURISDICTIONAL WETLANDS AND WATERWAY

Significance Criteria

A project would have a potentially significant effect on biological resources if:

The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

Specifically, any of the following conditions would be considered significant:

- A. Any of the following will occur to, or within jurisdictional wetlands or riparian habitats as defined by USACE, CDFG and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; or any activity that may cause an adverse change in native species composition, diversity and abundance.
- B. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.
- C. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

The proposed project will not result in significant impacts under the following guidelines for the following reasons:

- A. No potentially jurisdictional wetland or riparian habitats are present within the proposed project area.
- B. The project would involve minimal water use and would not draw down the groundwater table to the detriment of groundwater-dependent habitat.
- C. Jurisdictional wetlands do not occur within the proposed project area. The project would not impact the functions and values of these drainage features.

Mitigation Measures and Design Considerations

As the proposed project would not result in significant impacts to wetlands, mitigation is not required.

WILDLIFE CORRIDOR AND LINKAGE IMPACTS

A project would have a potentially significant effect on biological resources if:

The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Any of the following conditions would be considered significant:

- A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.
- C. The project would create artificial wildlife corridors that do not follow natural movement patterns.
- D. The project would increase noise or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
- E. The project does not maintain an adequate width for an existing wildlife corridor or linkage, or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.
- F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

The proposed project would not result in significant impacts under the guidelines listed above as impacts would be limited to a 6 to 10-foot-wide dirt clearing. These impacts would not impact wildlife mobility, breeding, or reproduction. These limited impacts would also not prevent or interfere with connectivity to adjacent preserve areas in the Cleveland National Forest, the El Capitan Preserve, the San Diego River, or Lake Jennings. The proposed project would not result in any significant impacts to wildlife corridors or linkages.

Wildlife Corridor and Linkage Mitigation

As the proposed project would not result in significant impacts to wildlife corridors and linkages, mitigation is not proposed.

CUMULATIVE IMPACTS

A cumulative impact analysis is an assessment of how the proposed project, whose impacts may not be individually significant, could contribute significantly to the total impacts to sensitive resources occurring in the project vicinity. The proposed project is limited to the construction of a trail, with portions along an existing bench cut that historically was cleared of vegetation. Significant impacts would occur to the following sensitive vegetation communities: 0.829 acre of coastal sage scrub and 0.260 acre of nonnative grassland. Impacts to the locally common San Diego sunflower could occur. In addition, impacts to other sensitive plant species, if present, could occur as a result of the proposed project. Impacts to habitat of listed animal species could occur as a result of the proposed project. Significant impacts to special status species could occur as a result of increased human activity and competition from domestic animals, which could also affect nesting success.

Cumulative impacts to sensitive resources occurring in the project vicinity are not anticipated to be significant due to restoration and enhancement of disturbed nonnative grasslands on the HWD property, which will add to the cumulative quantity and quality of these resources. Also, this HWD property will be maintained in an undeveloped state, preserving the biological habitat of the area. In addition, the proposed project's impacts to sensitive biological resources are limited and would not be cumulatively considerable.

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PREPARERS AND CONTACTS

Preparers

Dale Ritenour Author, Biological Surveys

Brittany Buscombe GIS

Brad Stein GIS

Contacts

Laurel Lees County of San Diego Department of Parks and Recreation Staff

Jennifer Price County of San Diego Department of Parks and Recreation Staff

CONCLUSIONS

The proposed project would result in significant impacts to sensitive biological resources; however, mitigation measures have been proposed that would reduce impacts to below a level of significance.

If you have any questions regarding the contents of this letter report, please contact Dale Ritenour at (858) 578-8964.

Sincerely,

A handwritten signature in blue ink that reads "Dale Ritenour". The signature is fluid and cursive, with the first name "Dale" being more prominent than the last name "Ritenour".

Dale Ritenour
Senior Biologist

ATTACHMENTS

- Attachment 1 Figures 1-5
- Attachment 2 Plant Species Observed
- Attachment 3 Wildlife Species Detected
- Attachment 4 Sensitive Species with Potential to Occur
- Attachment 5 Wildlife Species with Potential to Occur



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Project Site

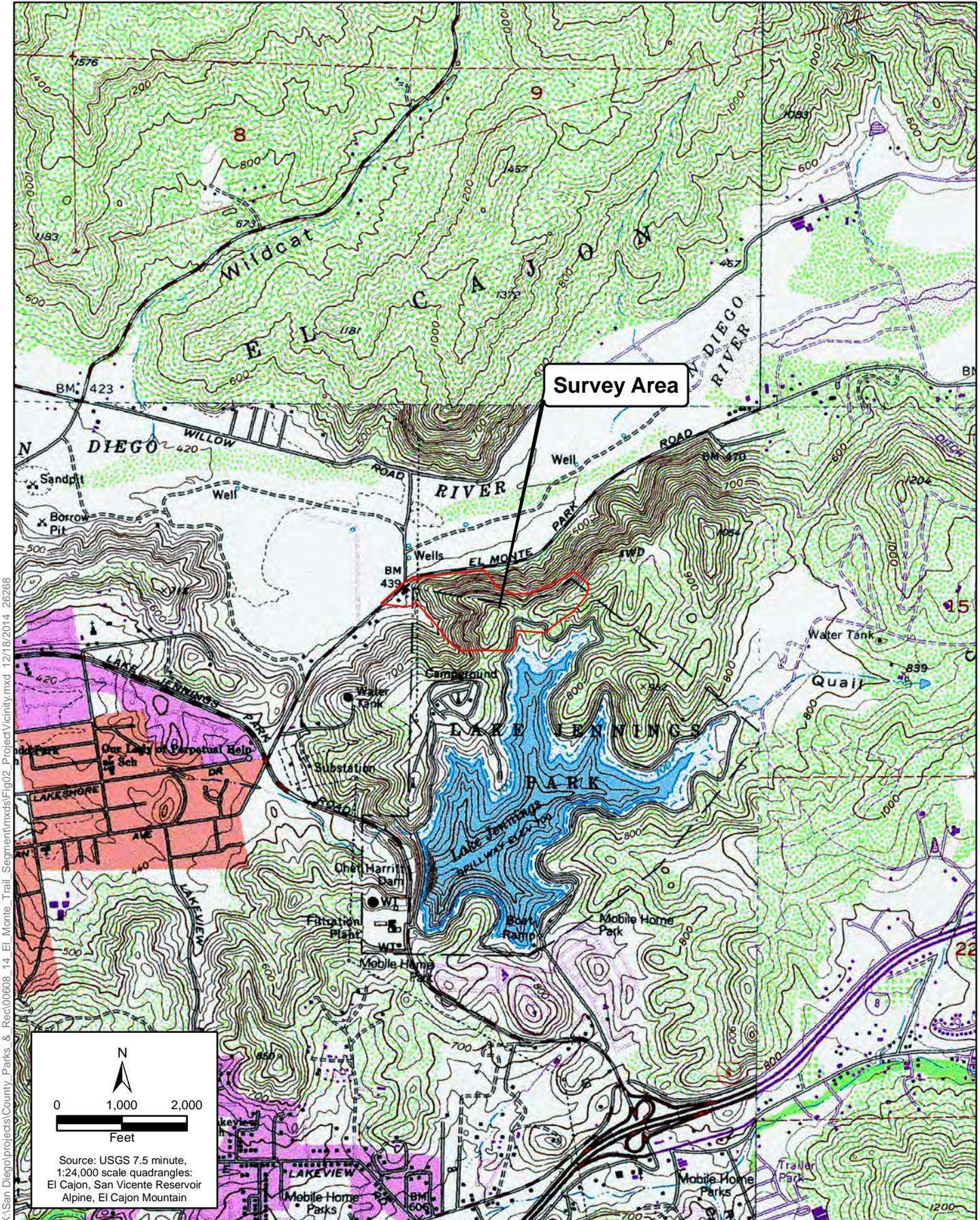




 Miles
 Source: ESRI World Map (2012).



Figure 1
Regional Location
San Diego River Trail Segment - El Monte Road to Lake Jennings

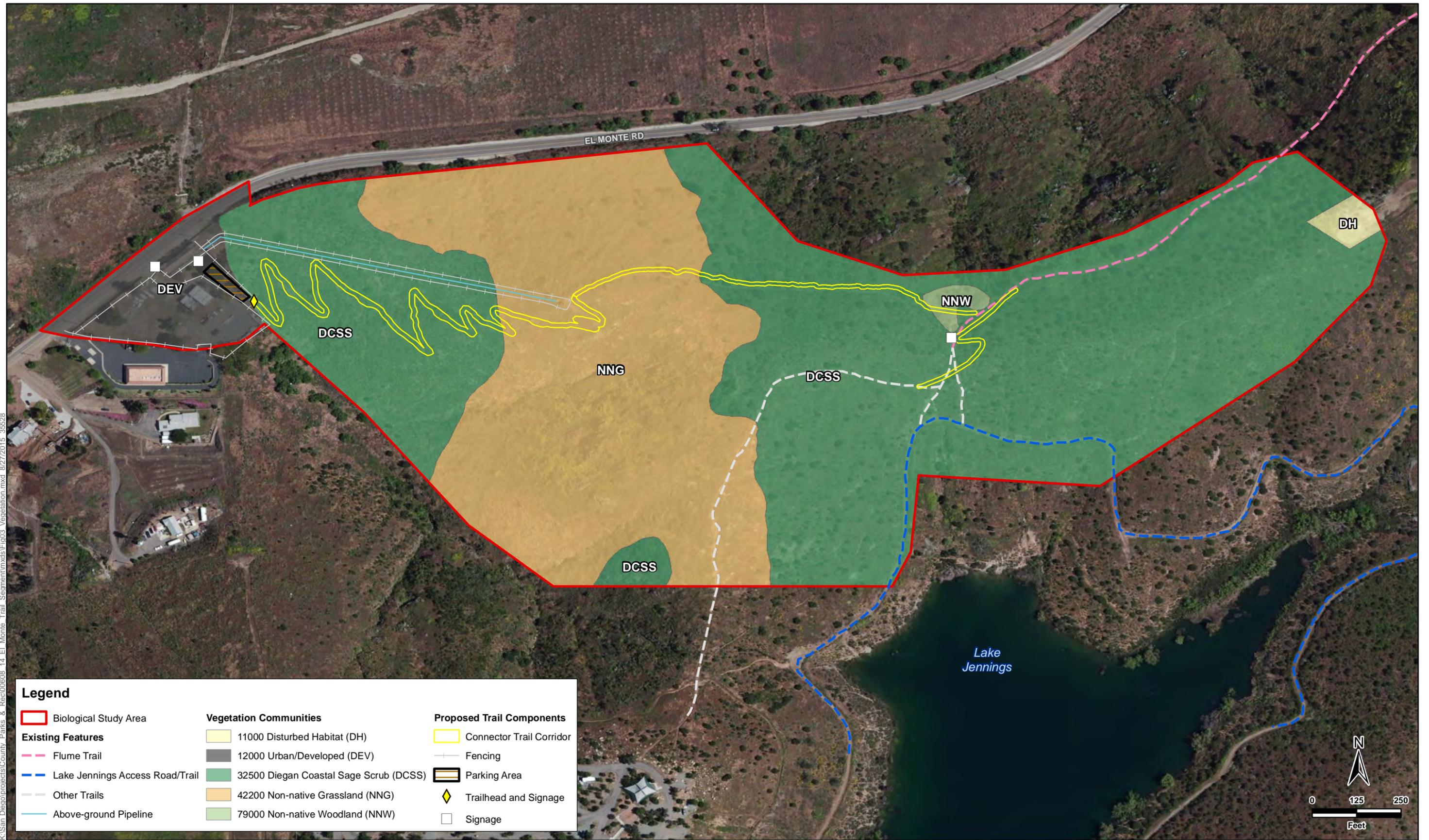


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Figure 2
Project Vicinity
San Diego River Trail Segment - El Monte Road to Lake Jennings

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Legend

Biological Study Area	Vegetation Communities	Proposed Trail Components
Existing Features	11000 Disturbed Habitat (DH)	Connector Trail Corridor
Flume Trail	12000 Urban/Developed (DEV)	Fencing
Lake Jennings Access Road/Trail	32500 Diegan Coastal Sage Scrub (DCSS)	Parking Area
Other Trails	42200 Non-native Grassland (NNG)	Trailhead and Signage
Above-ground Pipeline	79000 Non-native Woodland (NNW)	Signage



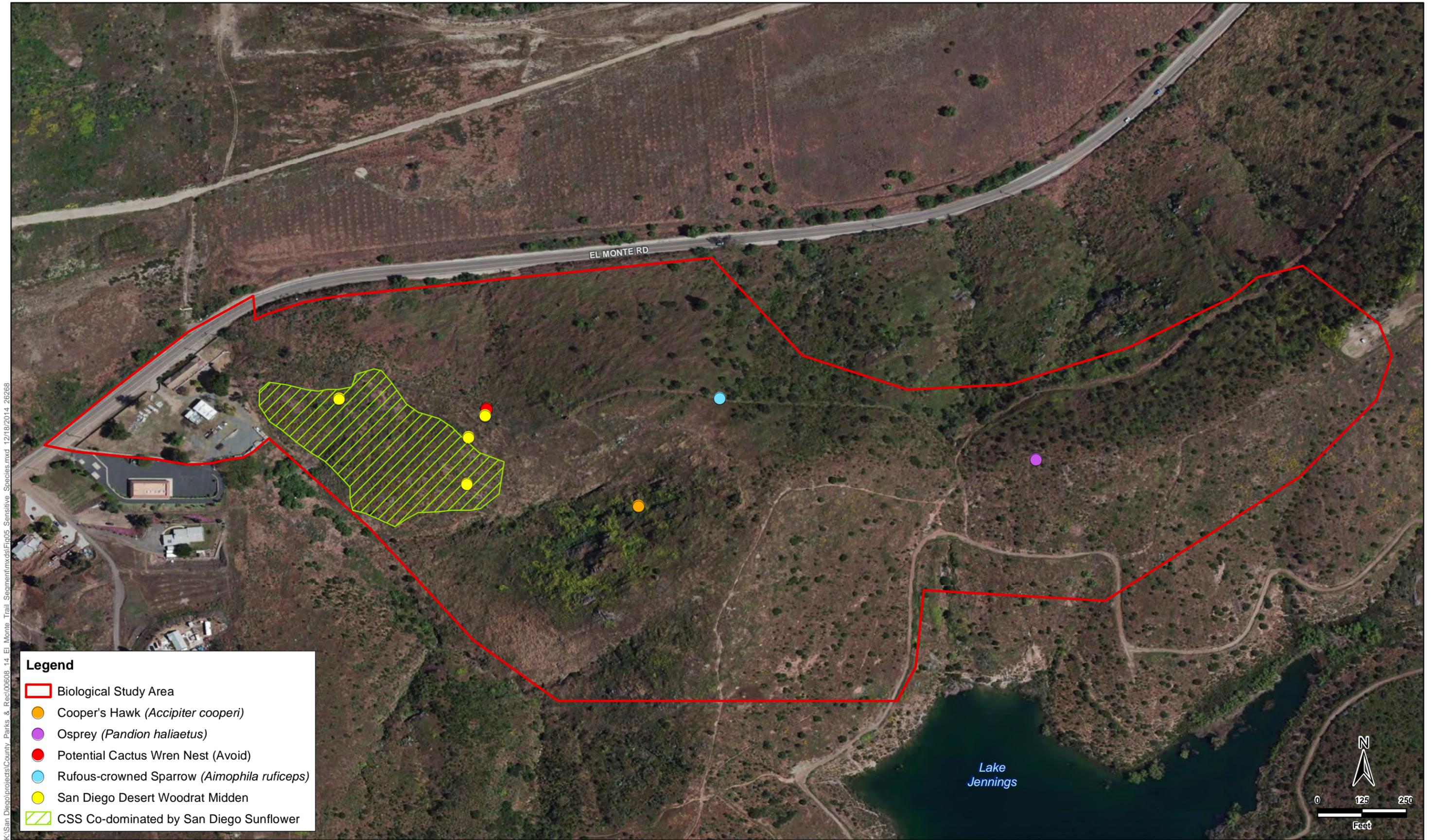
Figure 3
Vegetation Communities
San Diego River Trail Segment - El Monte Road to Historic Flume and Lake Jennings Campground Connection



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Figure 4
Soil Types and Topography
San Diego River Trail Segment - El Monte Road to Historic Flume and Lake Jennings Campground Connection



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Legend

- Biological Study Area
- Cooper's Hawk (*Accipiter cooperi*)
- Osprey (*Pandion haliaetus*)
- Potential Cactus Wren Nest (Avoid)
- Rufous-crowned Sparrow (*Aimophila ruficeps*)
- San Diego Desert Woodrat Midden
- CSS Co-dominated by San Diego Sunflower

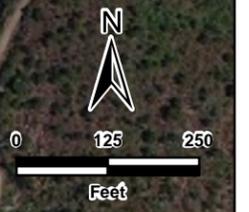


Figure 5
Sensitive Species
San Diego River Trail Segment - El Monte Road to Historic Flume and Lake Jennings Campground Connection

Attachment 2 - Plant Species Observed

Scientific Name	Common Name	Special Status
LYCOPHYTES		
Selaginellaceae - Spike-moss family		
<i>Selaginella bigelovii</i>	Bushy spike-moss	
FERNS		
Pteridaceae - Brake family		
<i>Pentagramma triangularis</i>	Goldback fern	
GYMNOSPERMS		
Cupressaceae - Cypress family		
* <i>Sequoia sempervirens</i>	Redwood	
Pinaceae - Pine family		
* <i>Pinus sp.</i>	Pine	
EUDICOTS		
Anacardiaceae - Sumac Or Cashew family		
<i>Malosma laurina</i>	Laurel sumac	
* <i>Schinus molle</i>	Peruvian pepper tree	
Apiaceae - Carrot family		
<i>Daucus pusillus</i>	Rattlesnake weed	
Asteraceae - Sunflower family		
<i>Ambrosia psilostachya</i>	Western ragweed	
<i>Artemisia californica</i>	California sagebrush	
<i>Baccharis sarothroides</i>	Broom baccharis	
<i>Bahiopsis laciniata</i>	San Diego sunflower	CRPR 4.2
<i>Brickellia californica</i>	California brickellbush	
* <i>Carduus pycnocephalus ssp. pycnocephalus</i>	Italian thistle	
* <i>Centaurea melitensis</i>	Tocalote	
<i>Gutierrezia californica</i>	California matchweed	
<i>Hazardia squarrosa</i>	Saw toothed goldenbush	
* <i>Sonchus oleraceus</i>	Common sow thistle	
Bignoniaceae - Bignonia family		
* <i>Jacaranda mimosifolia</i>	Blue jacaranda	
Boraginaceae - Borage family		
<i>Amsinckia menziesii</i>	Menzies's fiddleneck	
<i>Cryptantha sp.</i>	Cryptantha	
<i>Pholistoma racemosum</i>	Racemed fiesta flower	

Scientific Name	Common Name	Special Status
Brassicaceae - Mustard family		
* <i>Hirschfeldia incana</i>	Shortpod mustard	
* <i>Sisymbrium altissimum</i>	Tumble mustard	
Cactaceae - Cactus family		
<i>Opuntia littoralis</i>	Coastal prickly pear	
Caryophyllaceae - Pink family		
<i>Silene sp.</i>	Catchfly	
Chenopodiaceae - Goosefoot family		
* <i>Salsola tragus</i>	Prickly russian thistle	
Convolvulaceae - Morning-glory family		
<i>Calystegia macrostegia</i>	Coast morning-glory	
Crassulaceae - Stonecrop family		
<i>Dudleya pulverulenta</i>	Chalk dudleya	
Cucurbitaceae - Gourd family		
<i>Cucurbita foetidissima</i>	Calabazilla	
Euphorbiaceae - Spurge family		
<i>Croton setigerus</i>	Doveweed	
Geraniaceae - Geranium family		
* <i>Erodium cicutarium</i>	Redstem filaree	
Juglandaceae - Walnut family		
* <i>Carya illinoensis</i>	Pecan	
* <i>Juglans regia</i>	English walnut	
Lamiaceae - Mint family		
* <i>Marrubium vulgare</i>	Horehound	
<i>Salvia apiana</i>	White sage	
Lythraceae - Loosestrife family		
* <i>Lagerstroemia indica</i>	Crape myrtle	
Nyctaginaceae - Four O'clock family		
<i>Mirabilis laevis</i>	Wishbone plant	
Oleaceae - Olive family		
* <i>Fraxinus uhedi</i>	Shamel Ash	
Onagraceae - Evening Primrose family		
<i>Clarkia sp.</i>	Clarkia	
<i>Epilobium canum</i>	California fuchsia	
<i>Eulobus californicus</i>	False-mustard	

Scientific Name	Common Name	Special Status
Phrymaceae - Lopseed family		
<i>Mimulus aurantiacus</i>	Bush monkeyflower	
Polygonaceae - Buckwheat family		
<i>Eriogonum fasciculatum</i>	California buckwheat	
Rhamnaceae - Buckthorn family		
<i>Frangula californica ssp. californica</i>	California coffeeberry	
Rutaceae - Rue family		
* <i>Citrus xparadisi</i>	Grapfruit	
Saxifragaceae - Saxifrage family		
<i>Jepsonia parryi</i>	Parry's jepsonia	
Scrophulariaceae - Figwort family		
<i>Scrophularia californica</i>	California figwort	
Simaroubaceae - Quassia Or Simarouba family		
* <i>Ailanthus altissima</i>	Tree of heaven	
Solanaceae - Nightshade family		
<i>Datura wrightii</i>	Wright's jimsonweed	
* <i>Nicotiana glauca</i>	Tree tobacco	
* <i>Solanum elaeagnifolium</i>	Silverleaf nightshade	
MONOCOTS		
Poaceae - Grass family		
* <i>Avena fatua</i>	Wild oat	
* <i>Bromus diandrus</i>	Ripgut brome	
* <i>Bromus madritensis ssp. rubens</i>	Red brome	
* <i>Hordeum murinum</i>	Wall barley	
* <i>Stipa miliacea var. miliacea</i>	Smilo grass	

Scientific Name	Common Name	Special Status
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Legend

*= Non-native or invasive species

Special Status:

Federal:

FE = Endangered

FT = Threatened

State:

SE = Endangered

ST =Threatened

CRPR – California Rare Plant Rank

1A. Presumed extinct in California and elsewhere

1B. Rare or Endangered in California and elsewhere

2A. Presumed extinct in California, more common elsewhere

2B. Rare or Endangered in California, more common elsewhere

3. Plants for which we need more information - Review list

4. Plants of limited distribution - Watch list

Threat Ranks

.1 - Seriously endangered in California

.2 – Fairly endangered in California

.3 – Not very endangered in California

Attachment 3: Wildlife Species Detected

Scientific Name	Common Name	Special Status
VERTEBRATES		
Birds		
<i>Pandion haliaetus</i>	Osprey	SDC Group I
<i>Accipiter cooperii</i>	Cooper's Hawk	SDC Group I, MSCP
<i>Buteo jamaicensis</i>	Red-tailed Hawk	
* <i>Columba livia</i>	Rock Pigeon	
<i>Zenaidura macroura</i>	Mourning Dove	
<i>Geococcyx californianus</i>	Greater Roadrunner	
<i>Picoides nuttallii</i>	Nuttall's Woodpecker	
<i>Sayornis nigricans</i>	Black Phoebe	
<i>Corvus brachyrhynchos</i>	American Crow	
<i>Corvus corax</i>	Common Raven	
<i>Psaltriparus minimus</i>	Bushtit	
<i>Salpinctes obsoletus</i>	Rock Wren	
<i>Thryomanes bewickii</i>	Bewick's Wren	
<i>Poliophtila caerulea</i>	Blue-gray Gnatcatcher	
<i>Regulus calendula</i>	Ruby-crowned Kinglet	
<i>Chamaea fasciata</i>	Wrentit	
<i>Setophaga coronata</i>	Yellow-rumped Warbler	
<i>Aimophila ruficeps canescens</i>	Southern California Rufous-crowned Sparrow	SDC Group I, MSCP
<i>Melospiza crissalis</i>	California Towhee	
<i>Haemorhous mexicanus</i>	House Finch	
Mammals		
<i>Sylvilagus audubonii</i>	Desert Cottontail	
<i>Thomomys bottae</i>	Botta's Pocket Gopher	
<i>Neotoma macrotis</i>	Big-eared Woodrat	
<i>Neotoma lepida intermedia</i>	San Diego Desert Woodrat	CSC SDC Group II
* <i>Canis familiaris</i>	Domestic Dog	
<i>Canis latrans</i>	Coyote	
<i>Urocyon cinereoargenteus</i>	Common Gray Fox	
<i>Procyon lotor</i>	Northern Raccoon	
<i>Lynx rufus</i>	Bobcat	

Scientific Name	Common Name	Special Status
<i>*Equus caballus</i>	Domestic Horse	
<i>Odocoileus hemionus</i>	Southern Mule Deer	SDC Group II, MSCP

Legend

*= Non-native or invasive species

Special Status:

Federal:

FE = Endangered

FT = Threatened

State:

SE = Endangered

ST =Threatened

CSC = California Species of Special Concern

CFP = California Fully Protected Species

County:

SDC Group I = includes animal species that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met.

SDC Group II - includes animal species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific within their suitable habitat types.

MSCP = Multiple Species Conservation Program Covered Species

Attachment 4. Sensitive Plant Species - Potential to Occur

Common Name (<i>Scientific Name</i>)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
San Diego thornmint (<i>Acanthomintha ilicifolia</i>)	CRPR 1B.1 SD County List A	Grassy openings in chaparral and coastal sage scrub, valley and foothill grassland, vernal pools. Prefers friable or broken clay soils.	Low	Appropriate soils are not present.
San Diego ambrosia (<i>Ambrosia pumila</i>)	CRPR 1B.1 SD County List A	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools, often in disturbed areas. Can occur in creek beds, seasonally dry drainages, and floodplains.	Low	Appropriate mesic habitats not present within BSA
San Diego sagewort (<i>Artemisia palmeri</i>)	CRPR 4.2 SD County List D	Occurs along creeks and drainages near the coast; but inland it occurs in mesic chaparral conditions. Below 915 m (3000 ft).	Low	Appropriate mesic habitats not present within BSA
Western spleenwort (<i>Asplenium vespertinum</i>)	CSC CRPR 4.2 SD County List D	Rocky areas in chaparral, cismontane woodland and coastal scrub. 180 - 1000 meters (591-3281 ft)	Low	Appropriate habitat present in vicinity
Dean's milkvetch (<i>Astragalus deanei</i>)	CRPR 1B.1 SD County List A	Open shrubby slopes. Associated with coastal sage scrub, chaparral, and sandy washes.	Moderate	Appropriate habitat present in vicinity. Species is known from the vicinity.
Jacumba milk-vetch (<i>Astragalus douglasii</i> var. <i>perstrictus</i>)	CRPR 1B.2	Rocky areas in chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland. 900-1370 m (2950-4495 ft).	Low	Primarily a montane species. Study area is outside of the species range.
San Diego milk-vetch (<i>Astragalus oocarpus</i>)	CRPR 1B.2 SD County List A	Openings in chaparral and oak woodland. 600-1500m (1968-4921ft).	Low	Some suitable habitat is present onsite
Coulter's saltbush (<i>Atriplex coulteri</i>)	CRPR 1B.2 SD County List A	Alkaline or clay in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. 3-460 m (10-1509 ft)	Low	Suitable habitat does not occur onsite. Appropriate soils are not present.
Parish brittlescale (<i>Atriplex parishii</i>)	CRPR 1B.1 SD County List A	Non-native grasslands, Chenopod scrub, playas, vernal pools.	Low	Suitable habitat is present onsite.
Encinitas baccharis (<i>Baccharis vanessae</i>)	CRPR 1B.1 SD County List A	Generally coastally influenced chaparral and, cismontane woodland.	Low	The BSA is outside of the known range of this species.

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
San Diego sunflower (<i>Bahiopsis laciniata</i>)	CRPR 4.2 SD County List D	Chaparral and coastal scrub. 20-750m (66-2461ft)	Present	Observed as a co-dominant species in sections of coastal sage scrub on site.
San Diego goldenstar (<i>Bloomeria clevelandii</i>)	CRPR 1B.1 SD County List A	Clays soils in coastal sage scrub, chaparral, valley grasslands, freshwater vernal pools. 50-465 m (165-1535 ft).	Low	Suitable clay soils not known from study area.
Orcutt's brodiaea (<i>Brodiaea orcuttii</i>)	CRPR 1B.1 SD County List A	Moist grasslands, near streams and the periphery of vernal pools. Below 1600m (5249ft).	Low	Appropriate mesic habitats not present within study area.
Brewer's calandrinia (<i>Calandrinia breweri</i>)	CRPR 4.2 SD County List D	Sandy or loamy, disturbed sites and burns in chaparral and coastal scrub. 10-1220 m (33-4003 ft)	Low	Suitable habitat does not occur on-site.
Round-leaved filaree (<i>California macrophylla</i>)	CRPR 1B.1 SD County List B	Cismontane woodland, valley and foothill grassland , open habitat on friable clay soils	Low	Suitable clay soils not present within study area.
Dunn's mariposa lily (<i>Calochortus dunnii</i>)	CRPR 1B.2 SD County List A	Rocky openings in chaparral or grassland/chaparral ecotone. 1500-1700m (4920-5577ft).	Low	Not expected. Some suitable habitat occurs, but not near the project area.
Lewis' evening-primrose (<i>Camissonia lewisii</i>)	CRPR 3 SD County List C	Sandy substrates in coastal bluff scrub, cismontane woodland, coastal dunes, coastal sage scrub, and valley and foothill grassland	Low	Suitable sandy soils not present in BSA
San Luis Obispo sedge (<i>Carex obispoensis</i>)	CRPR 1B.2	Often found in serpentinite seeps, sometimes gabbro; often on clay soils; Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. 10-820 m (33-2690 ft)	Low	Suitable habitat does not occur on-site. Appropriate soils are not present.
Lakeside Ceanothus (<i>Ceanothus cyaneus</i>)	CRPR 1B.2 SD County List A	Closed-cone coniferous forest, inland dense mixed chaparral, primarily on gabbro soils	Low	Appropriate gabbro soils not present onsite
Wart-stemmed ceanothus (<i>Ceanothus verrucosus</i>)	CRPR 2.2 SD County List B	Coastal chaparral intermixed with chamise and mission manzanita	Low	Coastal plain species; BSA is outside of known range of species. This is a conspicuous scrub and would likely have been observed, if present.

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Southern Tarplant (<i>Centromadia parryi australis</i>)	CRPR 1B,1 SD County List A	Marshes and swamps, valley and foothill grassland, vernal pools	Low	Suitable habitat does not occur on-site.
Smooth tarplant (<i>Centromadia pungens ssp. laevis</i>)	CRPR 1B.1 SD County List A	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland	Low	Suitable habitat does not occur on-site.
Southern mountain misery (<i>Chamabaetia australis</i>)	CRPR 4.2 SD County List D	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley & foothill grassland, esp gabbroic or metavolcanic substrate, 120-1,005 m.	Low	Soils and habitat are marginally suitable
Abrams' spurge (<i>Chamaesyce abramsiana</i>)	CRPR 2.2	Sandy areas in Mojavean desert scrub and Sonoran desert scrub. Below 915 m (3002 ft)	Not Expected	Desert species. Suitable habitat does not occur on-site. Known from one historical record in Flynn Springs.
Long spined-spine flower (<i>Chorizanthe polygonoides var. longispina</i>)	CRPR 1B.2 SD County List A	Clay lenses, largely devoid of shrubs. Occasionally seen on the periphery of vernal pool habitat and the periphery of montane meadows near vernal seeps. Below 1400m (4593ft).	Low	Not expected. No suitable habitat is present onsite.
Delicate clarkia (<i>Clarkia delicata</i>)	CRPR 1B.2 SD County List A	Oak woodlands and chaparral. 235-1000m (770-3280ft).	Moderate	Potential habitat in shaded areas on north-facing slopes
San Miguel savory (<i>Clinopodium chandleri</i>)	CRPR 1B.2 SD County List A	Rocky, gabbroic or metavolcanic in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. 120-1075m (394-3527ft)	Low	Some suitable habitat occurs, but appropriate soils are not present.
Summer holly (<i>Comarostaphylis diversifolia var. diversifolia</i>)	CRPR 1B.2 SD County List A	Southern mixed chaparral, usually on mesic north-facing slopes. Almost the entire population occurs west of Interstate 15. 100-550m (328-1804ft).	Low	Suitable habitat not present onsite.
Small-flowered morning-glory (<i>Convolvulus simulans</i>)	CRPR 4.2 SD County List D	Clay and serpentinite seeps in chaparral (openings), coastal scrub, and valley and foothill grassland. 30-700m (98-2297ft)	Low	Suitable habitat does not occur on-site. Appropriate soils are not present.
Cuyamaca larkspur (<i>Delphinium hesperium ssp. cuyamacae</i>)	SR CRPR 1B.2 SD County List A	Mesic habitats in .lower montane coniferous forest, meadows and seeps and vernal pools. 1220-1631m (4003-5351ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Variegated dudleya (<i>Dudleya variegata</i>)	CRPR 1B.2 SD County List A	Openings in chaparral, cismontane woodland, and coastal sage scrub, isolated rocky substrates in open grasslands, and vernal pools and mima mounds	Low	Appropriate rocky outcrops present onsite. No appropriate clay soils found onsite.
Palmer's goldenbush (<i>Ericameria palmeri</i> ssp. <i>palmeri</i>)	CRPR 1B.1 SD County List B	Coastal drainages, in mesic chaparral sites, or rarely in coastal sage scrub. Below 600m (1969ft).	Low	No suitable mesic habitat occurs within the study area.
Vanishing wild buckwheat (<i>Eriogonum evanidum</i>)	CRPR 1B.1	Sandy areas in chaparral, cismontane woodland, lower montane coniferous forest, and pinyon and juniper woodland. 1100 - 2225 m (3609-7300 ft)	Not Expected	Montane species. Appropriate habitat not present.
San Diego barrel cactus (<i>Ferocactus viridescens</i>)	CRPR 2.1 SD County List B	Sandy to rocky areas in coastal sage scrub. 2–150m (6-492ft).	Moderate	Associated with San Diego sunflower. Project site is just outside known range of species.
Sticky geraea (<i>Geraea viscida</i>)	CRPR 2.3 SD County List B	Chaparral (often in disturbed areas). 450–1700m (1476-5577 ft)	Not Expected	Primarily a montane and trans-montane species.
Mission canyon bluecup (<i>Githopsis diffusa</i> ssp. <i>filicaulis</i>)	CRPR 3.1 SD County List C	Isolated, open areas in chaparral	Low	Primarily a montane species
Hairy gumplant (<i>Grindelia hirsutula</i>)	CRPR 1B.2 SD County List D	Chaparral habitat in lower montane coniferous forest, meadows and seeps, valley and foothill grassland. 185-1745m (607-5725ft)	Low	Suitable habitat does not occur on-site.
Palmer's grappling hook (<i>Harpagonella palmeri</i>)	CRPR 4.2 SD County List D	Clay vertisols with open grassy slopes or Diegan coastal sage scrub between 20-955m (66-3133 ft).	Low	Some suitable habitat is present on the project site, but appropriate clay soils are lacking.
Tecate cypress (<i>Hesperocyparis forbesii</i>)	CRPR 1B.1 SD County List A	Clay, gabbroic or metavolcanic in closed-cone coniferous forest and chaparral. 80-1500m (262-4921ft)	Not Expected	Suitable habitat does not occur on-site. Appropriate soils area not present.
Cuyamaca cypress (<i>Hesperocyparis stephensonii</i>)	CRPR 1B.1 SD County List A	Gabbroic in closed-cone coniferous forest, chaparral, cismontane woodland and riparian forest. 1035-1705m (3396-5596ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Beach goldenaster (<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>)	CRPR 1B.1 SD County List D	Chaparral (coastal), coastal dunes and coastal scrub. Below 1225m (4019ft)	Low	Sand dune species. Suitable habitat does not occur on-site.

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Ramona horkelia (<i>Horkelia truncata</i>)	CRPR 1B.3 SD County List A	Open chamise chaparral between 400-1300m (1312-4265ft).	Low	Suitable habitat does not occur on-site.
San Diego sunflower (<i>Hulsea californica</i>)	CRPR 1B.3 SD County List A	Openings and burned areas in chaparral, lower montane coniferous forest and upper montane coniferous forest. 915-2915m (3002-9564ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Wright's hymenothrix (<i>Hymenothrix wrightii</i>)	CRPR 4.3 SD County List D	Cismontane woodland, lower montane coniferous forest, valley and foothill grassland. 1400-1550m (4593-5085ft)	Low	Suitable habitat does not occur on-site.
Decumbent goldenbush (<i>Isocoma menziesii</i> var. <i>decumbens</i>)	CRPR 1B.2 SD County List A	Chaparral and coastal scrub (sandy, often in disturbed areas). 10-135m (33-443ft)	Moderate	Suitable habitat is present onsite.
Southwestern spiny rush (<i>Juncus acutus</i> ssp. <i>leopoldii</i>)	CRPR 4.2 SD County List D	Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt). 3-900m (10-2593ft)	Low	Suitable mesic habitat does not occur on-site.
Heart-leaved pitcher sage (<i>Lepechinia cardiophylla</i>)	CRPR 1B.2 SD County List A	Closed-cone coniferous forest, chaparral, cismontane woodland	Low	Limited suitable habitat is present onsite. Not observed during the surveys.
Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	CRPR 1B.2 SD County List A	Openings in chaparral and sage scrub, generally well away from the coast in Southern California in the foothill elevations. Below 500m (1640ft).	Low	Marginal habitat present onsite. No known populations occur within 5 miles of the project site.
Lemon lily (<i>Lilium parryi</i>)	CRPR 1B.2 SD County List A	Mesic habitat in lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. 1220-2745m (4003-9006ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Parish's meadowfoam (<i>Limnanthes alba</i> ssp. <i>Parishii</i>)	SE CRPR 1B.2 SD County List A	Vernally mesic habitat in lower montane coniferous forest, meadows and seeps, and vernal pools. 600-2000m (1969-6562ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Orcutt's linanthus (<i>Linanthus orcuttii</i>)	CRPR 1B.3 SD County List A	Openings in chaparral, lower montane coniferous forest, and pinyon and juniper woodland. 915-2145m (3002-7037ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Cleveland's bush monkeyflower (<i>Mimulus clevelandii</i>)	CRPR 4.2 SD County List D	Gabbroic, often in disturbed areas, openings, rocky in chaparral, cismontane woodland, and lower montane coniferous forest. 450-2000m (1476-6562ft)	Low	Suitable habitat does not occur on-site. Occurs at elevations higher than the project area.

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Palomar monkeyflower (<i>Mimulus diffuses</i>)	CRPR 4.3	Sandy or gravelly areas in chaparral and lower montane coniferous forest. 1220-1830m (4003-6004ft)	Not Expected	Montane species. Suitable habitat does not occur on-site.
Felt-leaved monardella (<i>Monardella hypoleuca</i> var. <i>lanata</i>)	CRPR 1B.2 SD County List A	Chamise chaparral understory. 300-1000m (984-3280 ft).	Low	No appropriate habitat present on-site
Willow monardella (<i>Monardella viminea</i>)	FE SE CRPR 1B.1 SD County List A	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland, alluvial ephemeral washes, usually at sandy locales in seasonally dry washes	Not Expected	Suitable alluvial stream habitat does not occur on-site.
Little mousetail (<i>Myosurus minimus</i>)	CRPR 3.1 SD County List C	Vernal pools; 20-640 meters	Not expected	Vernal pool species. No habitat present in the survey area.
Spreading navarretia (<i>Navarretia fossalis</i>)	CRPR 1B.1 SD County List A	Assorted shallow freshwater marshes and swamps, San Diego hardpan and claypan vernal pools, 30-655 meters	Not expected	Vernal pool species. No habitat present in the survey area.
Chaparral nolina (<i>Nolina cismontana</i>)	CRPR 1B.2 SD County List A	Usually found in xeric Diegan coastal sage scrub and open chaparral.	Low	Known from Viejas Mountain. Not reported in the vicinity.
Dehesa nolina (<i>Nolina interrata</i>)	CRPR 1B.1 SD County List A	Open southern mixed chaparral and chamise chaparral. 200-700m (656-2296ft).	Low	Appropriate soils not present in the vicinity.
California adder's-tongue (<i>Ophioglossum californicum</i>)	CRPR 4.2 SD County List D	Chaparral, valley & foothill grassland, vernal pool margins, 60-300 m.	Low	Some suitable habitat is present onsite. Appropriate clay soils not present.
Gander's ragwort (<i>Packera ganderi</i>)	CRPR 1B.2 SD County List A	Openings in chaparral on metavolcanic, mafic or gabbro soils.	Low	Minimal suitable habitat is present onsite, but appropriate soils area lacking. Not observed during the surveys.
Montana chaparral-pea (<i>Pickeringia montana</i>)	CRPR 4.3	Gabbroic, granitic, clay in chaparral. Below 1700m (5577 ft)	Low	Minimal suitable habitat is present onsite and appropriate soils area lacking.
Cooper's rein orchid (<i>Piperia cooperi</i>)	CRPR 4.2 SD County List D	Chaparral, cismontane woodland, and valley and foothill grassland. 15-1585m (49-5200ft) Uncommon, occurs on heavy (clay) soils	Low	Site lacks clay soils

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Fish's milkwort (<i>Polygala cornuta</i> var. <i>fishiae</i>)	CRPR 4.3 SD County List D	Often forming thickets in chaparral, cismontane woodland, and riparian woodland. 100-1000m (33-3281ft)	Low	Primarily found at higher elevations.
Nuttall's scrub oak (<i>Quercus dumosa</i>)	CRPR 1B.1 SD County List A	Coastal chaparral with a generally open canopy cover	Low	Not expected. Some suitable habitat occurs within the area. Species primarily found in the coastal plain.
Engelmann oak (<i>Quercus engelmannii</i>)	CRPR 4.2 SD County List D	Oak woodland, southern mixed chaparral, and savannah grasslands of the interior valleys and slopes. Below 1300m (4265ft).	Low	No oak woodland within study area. This large species would have been observed during surveys.
Moreno currant (<i>Ribes canthariforme</i>)	CRPR 1B.3 SD County List A	Chamise chaparral. 500-1200m (1640-3937ft).	Low	Appropriate habitat not present within the survey area.
Caraway-leaved woodland-gilia (<i>Saltugilia caruifolia</i>)	CRPR 4.3 SD County List A	Sandy, openings in chaparral and lower montane coniferous forest. 840-2300m (2756-7546ft)	Low	Appropriate habitat not present within the survey area.
Southern mountains skullcap (<i>Scutellaria bolanderi</i> ssp. <i>austromontana</i>)	CRPR 1B.2 SD County List A	Moist embankments of montane creeks. 600-2000m (1969-6562ft).	Not Expected	Primarily a montane species. Study area is outside of the species range
Cove's cassia (<i>Senna covesii</i>)	CRPR 2.2 SD County List B	Sonoran desert scrub (sandy). 305-1070m (1001-3511ft)	Not Expected	Desert species. Not expected in study area.
Hammitt's clay-cress (<i>Sibaropsis hammittii</i>)	CRPR 1B.2 SD County List A	Clay in chaparral, valley and foothill grassland	Low	Appropriate soils not present in the study area.
Prairie wedge grass (<i>Sphenopholis obtusata</i>)	CRPR 2.2	Mesic habitat in cismontane woodland and meadows and seeps. 300-2000m (984-6562ft)	Low	Only known in San Diego County from Cuyamaca.
Purple stemodia (<i>Stemodia durantifolia</i>)	CRPR 2.1 SD County List B	Sandy drainages (often mesic). 180-300m (591-984ft)	Low	Appropriate habitat not present within the survey area.
San Diego County needle grass (<i>Stipa diegoensis</i>)	CRPR 4.2 SD County List D	Rocky, often mesic habitats in chaparral and coastal scrub. 10 - 800 m (33-2625 ft)	Low	Appropriate habitat not present within the survey area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
San Bernardino aster (<i>Symphyotrichum defoliatum</i>)	CRPR 1B.2	Near ditches, streams, springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic). 2-2040m (7-6693ft)	Low	Montane species. Study area is outside of the species range
Parry's tetracoccus (<i>Tetracoccus dioicus</i>)	CRPR 1B.2 SD County List A	Chamise chaparral. Below 1000m (3280ft).	Low	Appropriate soils and habitat not present within the study area.
Velvety false lupine (<i>Thermopsis californica var. semota</i>)	CRPR 1B.2 SD County List A	Cismontane woodland, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland. 1000-1870m (3281-6135ft)	Not Expected	Primarily a montane species. Study area is outside of the species range.
Rush-like bristleweed (<i>Xanthisma junceum</i>)	CRPR 4.3	Chaparral and coastal scrub. 240-1000m (787-3281ft). Uncommon, dry hillside, mafic or clay soils.	Moderate	Appropriate habitat present within the study area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
<p>Legend:</p> <p>Status:</p> <p>Federal</p> <p>FE - Listed as endangered under the federal Endangered Species Act. FT - Listed as threatened under the federal Endangered Species Act. FC – Candidate for listing under the federal Endangered Species Act.</p> <p>State</p> <p>SE - Listed as endangered under the California Endangered Species Act. ST – Listed as threatened under California Endangered Species Act. SR – Listed as rare under California Endangered Species Act.</p> <p>CA Rare Plant Rank (CRPR) – Formerly known as CNPS List</p> <p>1A. Presumed extirpated in California, and either rare or extinct elsewhere 1B. Rare, threatened, or endangered in California and elsewhere 2A. Presumed extirpated in California, more common elsewhere 2B. Rare, threatened, or endangered in California, more common elsewhere 3. Plants for which we need more information - Review list 4. Plants of limited distribution - Watch list</p> <p><i>Threat Ranks</i></p> <p>.1 - Seriously threatened in California .2 – Fairly threatened in California .3 – Not very threatened in California</p> <p>San Diego County Group</p> <p>A – Rare, threatened or endangered in California and elsewhere B – Rare, threatened or endangered in California but more common elsewhere C – Maybe quite rare, but more information is needed to determine their status D – Limited distribution and are uncommon but not presently rare or endangered</p> <p>References:</p> <p>Special Status plant information from CDFW 2014 and SDC 2010. Nomenclature from Baldwin et al. 2012 and Rebman 2014. Plant descriptions from Baldwin et al. 2012, CNPS Online Inventory 2014, Hickman 1993, Reiser 2001, and pers. comm. Range information from CCH 2014; CNDDDB 2014, CNPS 2014, and SDNHM Plant Atlas Project 2014.</p>				

Attachment 5. Sensitive Animal Species - Potential to Occur

Common Name (Scientific Name)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
Cooper's hawk (<i>Accipiter cooperi</i>)	SD County Group I	Tree-nesting raptor. Widespread foraging.	Present	Observed foraging over the study area. Suitable nesting habitat present within the study area.
Tricolored blackbird (<i>Agelaius tricolor</i>)	CSC SD County Group I	Freshwater marshes, swamps and wetlands.	Low	Site lacks suitable habitat.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	CSC SD County Group I	Low- growing chaparral with eroding sandstone as substrate	Low.	Site marginally suitable.
Arroyo toad (<i>Anaxyrus californicus</i>)	FE CSC SD County Group I	Found near water; Desert wash, riparian scrub and riparian woodland. Found below 2440 m	Low	Site is marginally suitable for arroyo toad dispersal/foraging. No suitable breeding habitat.
Silvery legless lizard (<i>Anniella pulchra pulchra</i>)	CSC SD County Group II	Chaparral, coastal dunes and coastal scrub.	Low	Potential in areas with deep leaf litter, such as north facing slopes.
Pallid bat (<i>Antrozous pallidus</i>)	CSC SD County Group II	Grasslands, shrublands, woodlands, and forests, including mixed conifer forest; open, dry, rocky lowlands; roost in caves, mines, rocks.	Low	Species is known from the vicinity but the study area has limited roosting and foraging habitat
Golden eagle (<i>Aquila chrysaetos</i>)	FP SD County Group II	Grasslands, sage scrub, or broken chaparral.	Nesting: Not expected Foraging: Moderate	No appropriate nesting habitat onsite. Site is appropriate for raptor foraging.
Orangethroat whiptail (<i>Aspidoscelis hyperythra</i>)	CSC SD County Group II	Chaparral, non-native grassland, coastal sage scrub, juniper woodland, and oak woodland.	High	Suitable habitat is present onsite. Known from vicinity.
Coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	SD County Group II	Chaparral, non-native grassland, coastal sage scrub,	High	Suitable habitat is present onsite. Known from vicinity.
Burrowing owl (<i>Athene cunicularia</i>)	CSC SD County Group I	Valley and foothill grassland, Coastal prairie, coastal scrub.	Low	Suitable habitat does not occur on-site.
San Diego fairy shrimp (<i>Branchinecta sandiegonensis</i>)	FE SD County Group I	Vernal pools and shallow ephemeral basins	Not expected	No suitable habitat on site.
San Diego cactus wren (<i>Campylorhynchus brunneicapillus sandiegensis</i>)	CSC SD County Group I	Coastal scrub. Nests in large cactus patches (<i>Opuntia</i> spp., <i>Cylindropuntia</i> spp.)	High	Species known from the vicinity. Potential nesting habitat present onsite.
Dulzura pocket mouse (<i>Chaetodipus californicus femoralis</i>)	CSC SD County Group II	Dense chaparral. Occurs below 2408 m (7900 ft). Inactive in cold weather.	Low	Marginally suitable habitat present onsite.

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Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	CSC SD County Group II	Open, sandy areas in coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low	Marginally suitable habitat present onsite.
Mexican long-tongued bat (<i>Choeronycteris Mexicana</i>)	CSC SD County Group II	Variety of arid habitats (lower and upper Sonoran life zones) Roosts include mine, caves, tunnels, buildings.	Low	Potential roost habitat (gated flume tunnel) occurs within survey area. May forage in the area.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	CSC SD County Group II	Occurs in a variety of habitats (desert scrub, grasslands, shrub lands, woodlands, and forests). Roosts include rock outcrops, mines, caves, tree hollows, buildings, and bridges.	Low	Species is known from the vicinity but the study area has limited roosting and foraging habitat.
Red-diamond rattlesnake (<i>Crotalus ruber</i>)	CSC SD County Group II	Variety of vegetation types. Commonly along coastal and desert slopes with heavy brush, cactus, rocks or boulders.	High	Suitable habitat present onsite. Species known from the vicinity.
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	FE ST SD County Group I	Open grasslands	Low	Non-native grassland habitat onsite is not appropriate habitat.
White-tailed kite (<i>Elanus leucurus</i>)	CSC SD County Group I	Open grasslands, agricultural areas, wetlands, and oak woodlands.	Low	Suitable roosting and foraging habitat present onsite.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	FE SE SD County Group I	Dense riparian habitats along rivers, streams, or other wetlands.	Not Expected	No suitable riparian habitat present within the study area.
Southwestern pond turtle (<i>Emys marmorata</i>)	CSC SD County Group I	Perennial watercourses	Not Expected	No suitable riparian habitat present within the study area.
Western mastiff bat (<i>Eumops perotis californicus</i>)	CSC SD County Group II	Occurs in a variety of habitat (desert scrub to chaparral and mixed conifer forests). Roost sites include crevices and cracks in cliff faces and boulders.	High	Study area has limited roosting and foraging habitat.
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	FE SD County Group I	Openings in coastal sage scrub and grasslands.	Low	Site is within QCB survey area. Habitat is marginal
Yellow-breasted chat (<i>Icteria virens</i>)	CSC SD County Group I	Dense stands of riparian woodland.	Low	Suitable riparian habitat not present within the survey area.
California mountain kingsnake (San Diego population) (<i>Lampropeltis zonata (pulchra)</i>)	CSC SD County Group II	Secretive snake; found in high-altitude forests.	Not Expected	Montane species: Known from Laguna, Palomar, Vulcan, and Hot Springs Mountains.
Western red bat (<i>Lasiurus blossevillii</i>)	CSC SD County Group II	Occurs in riparian and woodland habitats. Roosts include trees, within foliage.	High	Study area has limited roosting and foraging habitat.
Western yellow bat (<i>Lasiurus xanthinus</i>)	CSC	Occurs in fan palm oases and associated riparian habitats.	Low	Species is known from the vicinity but the study area has limited roosting and foraging habitat
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	CSC SD County Group I	Open habitats in deserts, irrigated croplands, high mountains to 2500 m (8200ft)	Moderate	Appropriate habitat present onsite

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San Diego desert woodrat (<i>Neotoma lepida intermedia</i>)	CSC SD County Group II	Desert and coastal sage scrub with rocky outcrops and succulents. Below 2591m (8500ft)	Present	Middens observed in cactus patches onsite.
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	CSC SD County Group II	Found in the low Colorado Desert and coastal areas of southern California. It is associated with a variety of habitats, including chaparral. Roosts include crevices in cliff faces and boulders, cave, mines, buildings, and bridges.	High	Species has been recorded at Lake Jennings.
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	CSC SD County Group II	Associated with rocky country, habitats include arroyo scrub, desert and woodland habitats.	Low	The study area has limited roosting and foraging habitat
Osprey (<i>Pandion haliaetus</i>)	SD County Group I	Tree-nesting raptor Forages over water.	Present	Observed flying over the site. No suitable nesting or foraging habitat present onsite.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	CSC SD County Group II	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest. Loose, fine soils with high sand content.	High	Suitable habitat is present on site.
Purple Martin (<i>Progne subis</i>)	CSC SD County Group I	Associated with open county, riparian and oak woodlands, savanna, rural areas, near water and open areas for foraging. Nests in tree holes, cliff, niche, or other cavity. Rare summer visitor, restricted almost entirely to the mountains.	Low	No suitable nesting habitat within the study area.
Coronado skink (<i>Plestiodon skiltonianus interparietalis</i>)	CSC SD County Group II	Moist areas of coastal sage, chaparral, oak woodlands, pinon-juniper, riparian woodlands and pine forests.	Low	Limited areas of mesic, shaded areas within the study area.
Coastal California gnatcatcher (<i>Polioptila californica californica</i>)	FT CSC SD County Group I	Sage scrub, coastal sage-chaparral scrub and chamise chaparral.	High	Species has been recorded in the vicinity. Study area is within Critical Habitat.
Coast patch-nosed snake (<i>Salvadora hexalepis virgultea</i>)	CSC SD County Group II	Generalists; thrive in many environments with vegetative cover.	Low	Not expected. Some suitable habitat occurs, but not near the project area.
Western spadefoot (<i>Spea hammondi</i>)	CSC SD County Group II	Vernal pools. Require rain pool persisting for 3 weeks, then soil for digging.	Low	Site lacks suitable habitat.
American badger (<i>Taxidea taxus</i>)	SD County Group II	Widespread species favors friable soils used by fossorial animals.	Low	Uncommon species in San Diego. Site provides suitable foraging habitat.
Two-striped garter snake (<i>Thamnophis hammondi</i>)	CSC SD County Group I	Found near water. Streams, riverbeds with thick riparian vegetation. Below 2438m (8000ft).	Low	No appropriate wetland habitat present within the study area.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE SE SD County Group I	Lowland riparian habitats.	Low	No appropriate riparian habitat present within the study area.

Common Name (<i>Scientific Name</i>)	Sensitivity Code & Status	Habitat Preference/Requirements	Potential to Occur	Rationale
<p>Legend:</p> <p>Status:</p> <p>Federal</p> <p>FE - Listed as endangered under the federal Endangered Species Act. FT - Listed as threatened under the federal Endangered Species Act. FC – Candidate for listing under the federal Endangered Species Act.</p> <p>State</p> <p>SE - Listed as endangered under the California Endangered Species Act. ST – Listed as threatened under California Endangered Species Act. SR – Listed as rare under California Endangered Species Act. SCS – State Species of Concern SFP – Fully Protected species under Fish and Game Code</p> <p>San Diego County Group</p> <p>Group 1 - includes those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirement that must be met. Group 2 - includes those species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.</p> <p>References:</p> <p>Special Status animal information from Shuford and Gardali 2008 and CDFG 2014. Nomenclature and invertebrate descriptions from USFWS 2008. Nomenclature and vertebrate descriptions from AOU 1998 and supplements, Collins and Taggart 2014, Stephenson and Calcarone 1999, Wilson and Reeder 1993, Wilson and Cole 2000, Unitt 2004.</p>				