Biological Resources Report for the Hayes Avenue Storm Drain Project (WBS No. S-11002.02.02), City of San Diego, California

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1.0 MANAGEMENT SUMMARY/ABSTRACT

The proposed Hayes Avenue Storm Drain Project (Project) (WBS No. S-11002.02.02) site occupies approximately 2.6 acres in central San Diego County, immediately west of CA-State Route 163 and north of Washington Street within the urban community of Hillcrest (Uptown Community Planning area) in the City of San Diego, California. The Project is within the City's Subarea Plan (City of San Diego 1997). Approximately 1.0 acre of the 2.6-acre study area is located within the Multiple Habitat Preservation Area (MHPA). The MHPA was mapped in the undeveloped canyon extending west from existing single-family and multi-family developments along Hayes Avenue, 10th Avenue, and Johnson Avenue.

A biological survey of the Project study area was conducted by Dudek biologists in November 2013. The survey included vegetation mapping, a jurisdictional delineation, and a habitat assessment for special-status plant and wildlife species. The purpose of the biological resource letter report is to provide the existing vegetation and jurisdictional resources and identify those plant and animal species recognized as sensitive by local, state, or federal wildlife agencies and/or environmental organizations that a have a moderate to high potential to occur in the study area based on habitats present.

Based on species composition and general physiognomy, three vegetation communities (or habitat types) were identified within the Project study area: disturbed coastal sage scrub/chaparral, maritime succulent scrub, and eucalyptus woodland. In addition, three land covers are located on site: urban/developed, disturbed land, and ornamental.

The Project study does not support suitable habitat or substrate for special-status plant species. Thus, rare plant surveys are not recommended. While not detected during the biological resource survey, three special-status wildlife species have a moderate to high potential to occur in the study area based on habitats present and known geographic range: Cooper's hawk (*Accipiter cooperii*), a Watch List and MSCP Covered species; western bluebird (*Sialia mexicana*), an MSCP Covered species; and silver-haired bat (*Lasiurus noctivagans*).

The results of the biological survey and wetland delineation concluded that there are no areas on site that meet the definition of a waters of the United States and/or State, including wetlands, subject to review by the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW).

Implementation of the Project would result in temporary impacts to 0.01 acre disturbed coastal sage scrub/chaparral (Tier II), 0.09 acre of urban/developed (Tier IV), 0.05 acre disturbed (Tier IV), and 0.008 acre ornamental plantings (Tier IV). While impacts to Tier II vegetation

communities typically require mitigation, the impacts to Tier II habitat, e.g. disturbed coastal sage scrub/chaparral, are less than 0.1 acre; thus, impacts to this vegetation community are not considered significant because they do not exceed the minimum 0.1-acre threshold established in the City's Biology Guidelines (City of San Diego 2012a). No mitigation is required for these impacts. Project impacts to urban/developed, disturbed land, and ornamental plantings would not be significant and thus would not require mitigation because these land covers provide little native habitat value and foraging opportunities for wildlife, particularly when they occur in densely urban environments such as the Project. No permanent landform alteration is proposed. While trenching is a direct impact, the disturbance associated with the work is temporary because the landform/drainage will remain the same following construction. Once construction is completed, all areas temporarily disturbed by the Project will be restored to pre-construction contours and conditions, including revegetation of native plant communities. Additional measures to reduce impacts to sensitive biological resources include phasing construction to avoid the bird breeding season, where feasible, and performing pre-construction nesting bird surveys if construction is to occur during the bird breeding season.

2.0 INTRODUCTION

This letter report provides an analysis of potential biological resource impacts associated with the proposed Hayes Avenue Storm Drain Project (Project) (WBS No. S-11002.02.02) in the City of San Diego, California.

In accordance with the current San Diego Land Development Code Biology Guidelines (City of San Diego 2012a), this survey letter report provides an introduction, a summary of the pertinent biological resource regulations, a project description, the survey methods, existing biological resources, special-status biological resources, project impacts, and project mitigation. The project impacts, avoidance, and mitigation measures (MMs) are discussed in accordance with the California Environmental Quality Act (CEQA), Clean Water Act (CWA), Migratory Bird Treaty Act (MBTA), California Fish and Game Code, the *City of San Diego Final Multiple Species Conservation Program (MSCP) Subarea Plan* (City Subarea Plan; City of San Diego 1997), and the City of San Diego's (City's) Environmentally Sensitive Lands (ESLs) regulations.

The City Project is intended to replace and install a new storm drain pipe along Hayes Avenue and within undeveloped portions of an existing canyon in the urban community of Hillcrest. The biological survey discussed in this letter report concentrated on identifying biological resources that may be subject to regulation under the City MSCP Subarea Plan (City Subarea Plan), Section 404 of the CWA as administered by the ACOE, Section 401 of the CWA and the Porter Cologne Act as administered by RWQCB, Sections 1600–1603 of the Fish and Game Code as administered by the CDFW, and other potential special-status biological resources.

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3.0 PROJECT LOCATION

The Project is located in central San Diego County (Figure 1), immediately west of CA-State Route 163, north of Washington Street, and within a residential area within the urban community of Hillcrest (Uptown Community Planning area) (Figure 2). The approximate centroid of the Project is 32°45'12" north latitude, 117°09'22" west longitude on the U.S. Geological Service (USGS) 7.5-minute series topographic La Jolla quadrangle map Section 26, Range 3 West, Township 16 South (Figure 2). The northern region of the Project is located within City-owned Assessor's Parcel Number (APN) 444-351-0700; the southern region of the Project is located along Hayes Avenue.

The proposed storm drain line is approximately 439 feet long and will replace existing storm drain facilities located along Hayes Avenue and north into an undeveloped canyon composed of disturbed coastal sage scrub-chaparral, maritime succulent scrub, and disturbed lands with pockets of ornamental landscaping and eucalyptus.

Topography and Land Uses

Within the Project study area (defined in Section 3.0, Methods), the topography is relatively flat on Hayes Avenue, moderately sloping in the north-facing canyon. The elevations in the study area range from 285 feet above mean sea level (AMSL) near the southern extent of the alignment to 250 AMSL near the northern terminus within the canyon bottom. The Project abuts a residential area supporting single-family and multifamily uses within the community of Hillcrest.

The Project study area is within the City's Subarea Plan (City of San Diego 1997). A large portion of the Project, particularly within the undeveloped canyon, is within the Multiple Habitat Preservation Area (MHPA). The Project is not within the City Coastal Zone Map No. C-908, as shown in Chapter 13, Article 2, Division 4 (City of San Diego 2008).

Soils

According to the San Diego County Soil Survey, one soil type (Terrace Escarpment) is mapped within the Project study area (Bowman 1973).

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4.0 METHODS

Data regarding biological and jurisdictional resources present within the study area were obtained through a review of pertinent literature and field reconnaissance; both are described in detail below.

Literature Review

The following data sources were reviewed to assist with the biological and jurisdiction efforts:

- Natural Resource Conservation Service (NRCS) Websoil Survey (U.S. Department of Agriculture (USDA 2013a)),
- CDFW California Natural Diversity Database (CNDDB; CDFW 2013a),
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2013),
- MSCP (City of San Diego 1997),
- U.S. Fish and Wildlife Service (USFWS) Species Occurrence Data (USFWS 2013), and
- San Diego Geographic Information Source (SanGIS) database (SanGIS 2013).

Field Reconnaissance

The field survey was performed by Dudek biologist Tricia Wotipka on November 21, 2013 (Table 1). The biological survey was conducted in accordance with the City's Guidelines for Conducting Biological Surveys (Appendix II, City of San Diego 2012a) and included the mapping of vegetation communities and land covers present within the Project study area, an evaluation of jurisdictional wetlands or waters, and an evaluation of the potential for special-status species to occur in the study area. A 200-foot buffer was used for mapping and analysis based on a preliminary alignment, but the final alignment is such that the buffer consists of 85 feet on the east side and 115 feet on the west site. The Project study area is a study corridor centered on each of the Project features that may result in disturbance (i.e., trenching areas, new facilities, staging areas) and is defined as an approximately 2.6-acre site.

Table 1
Survey Conditions

Date	Time	Personnel	Survey Conditions
11/21/2013	1330–1530	Tricia Wotipka	Overcast; 2–3 mph winds; 68˚ Fahrenheit

Resource Mapping

The survey was conducted on foot to visually cover 100% of the Project study area and a 200-scale (i.e., 200 feet = 1 inch) aerial photograph map (Bing Maps 2013) with an overlay of the Project boundary was utilized to map the vegetation communities and record any special-status biological resources directly in the field. Observable biological resources—including perennial plants and conspicuous wildlife (i.e., birds and some reptiles) commonly accepted as regionally special status by the California Native Plant Society (CNPS), CDFW, and USFWS—were recorded on the field map, where applicable. Additionally, an assessment and determination of potential for locally recognized special-status species (i.e., Narrow Endemic and Covered Species listed in the City's Subarea Plan) to occur on site was conducted. The information recorded onto the field map (e.g., vegetation communities and plant/animal species locations) was subsequently digitized into a Geographic Information System (GIS) format.

The vegetation community and land cover mapping follows the classifications described by Holland (1986), as adopted in the City Land Development Code, Biology Guidelines (City of San Diego 2012a). In some cases, Oberbauer et al. (2008) was also utilized as a reference, especially with regards to land cover types. Areas on site supporting less than 20% native plant species cover were mapped as disturbed land, and areas supporting at least 20% native plant species, but fewer than 50% native cover, were mapped as a disturbed native vegetation community (e.g., disturbed coastal sage scrub-chaparral). Vegetation community and land cover mapping was conducted for the entire Project study area.

Following completion of the field work, Dudek GIS Specialist Spenser Lucarelli digitized the mapped findings using ArcGIS and calculated coverage acreages using ArcCAD.

Flora and Fauna

The plant species encountered during the field survey were identified and recorded directly into a field notebook. Those species that could not be identified immediately were brought into the laboratory for further investigation. A compiled list of plant species observed in the study area is presented in Appendix A.

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly onto a field notebook. Binoculars (8.5x42 magnifications) were used to aid in the identification of wildlife. In addition to species actually detected during the surveys, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. A list of wildlife species observed in the study area is presented in Appendix B.

Latin and common names of animals follow Crother (2008) for reptiles and amphibians, American Ornithologists' Union (AOU 2012) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (NABA 2001), and San Diego Natural History Museum (SDNHM 2012) for butterflies.

Latin and common names for plant species with a California Rare Plant Rank (CRPR) (formerly CNPS List) follow the CNPS Online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2013). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2013) and common names follow the USDA NRCS Plants Database (USDA 2013b).

Wetlands Delineation

A jurisdictional delineation of "waters of the United States," including wetlands, under the jurisdiction of the ACOE, CDFW, and RWQCB was conducted in accordance with the 1987 ACOE Wetland Delineation Manual (ACOE 1987) and the Interim Regional Supplement to the ACOE Wetland Delineation Manual: Arid West Region (ACOE 2008). The site was evaluated for evidence of an ordinary high water mark (OHWM), soil saturation, surface water, and hydrophytic vegetation. A predominance of hydrophytic vegetation, where associated with a stream channel, would define CDFW-regulated wetlands. The limits of areas under the jurisdiction of the RWQCB generally match those areas delineated as ACOE-jurisdictional. However, stream channels with evidence of an OHWM that lack connectivity to waters of the United States may be considered to be under the jurisdiction of RWQCB and CDFW but not under the jurisdiction of ACOE.

Special-Status Biological Resources

Special-status biological resources are those defined as follows: (1) species that have been given special recognition by federal, state, or local conservation agencies and organizations due to limited, declining, or threatened population sizes; (2) species and habitat types recognized by local and regional resource agencies as special status; (3) habitat areas or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; (4) wildlife corridors and habitat linkages; or (5) biological resources that may or may not be considered special status, but are regulated under local, state, and/or federal laws.

Searches through the CNPS online inventory database (CNPS 2013) and CNDDB online inventory were conducted to assist in the determination of special-status plant and animal species potentially present on site (CDFG 2011; CDFW 2013b; CDFW 2014). Specifically,

both a one-quad search and a nine-quad search were conducted. In addition to these state database searches, species covered under the City's Subarea Plan, including Narrow Endemic Species, were evaluated in relation to the Project site to assist in determining the level of potential to occur on site.

5.0 RESULTS

The quantification of biological resources described herein pertains to the Project study area, totaling approximately 2.6 acres.

Vegetation Communities/Land Cover Types

Three vegetation communities and three land cover types were identified within the Project boundary, including maritime succulent scrub, disturbed coastal sage scrub/chaparral, urban/developed land, disturbed land, eucalyptus, and ornamental. The vegetation communities and land cover types on site are described in detail below, their acreages are presented in Table 2, and their spatial distributions are presented on the Biological Resources Map (Figure 3). Also included in Table 2 is the designation of vegetation community sensitivity, based on rarity and ecological importance, as identified by the City's Subarea Plan tiers (City of San Diego 1997).

Table 2
Vegetation Communities and Land Cover Types in the Project Study Area

Vegetation Community/Land Cover Type	Subarea Plan Tier[1]	Acreage
Vegetation Community		
Maritime Succulent Scrub (MSS)	I	0.16
Disturbed Coastal Sage Scrub/Chaparral (dCSS-CHAP)	II	0.13
Non-Native Uplands and Land Covers		
Urban/Developed (DEV)	IV	1.4
Disturbed (DIS)	IV	0.56
Eucalyptus (EUC)	IV	0.12
Ornamental Plantings (ORN)	IV	0.22
	Total	**2.6[2]**

1 City Subarea Plan tiers from City Biology Guidelines (City of San Diego 2012a).
2 Totals may not sum due to rounding.

Maritime Succulent Scrub habitat is found on thin rocky or sandy soils, often on steep slopes, where there is a small amount of summer rainfall (Holland 1986). It integrates with coastal sage scrub on better-developed soils away from the immediate coast. Maritime succulent scrub is a low, open (25% to 75% cover), scrub-dominated plant community consisting of drought-deciduous shrubs and succulents (Holland 1986). Maritime succulent scrub is ranked as Tier I and is considered special status under the City's Subarea Plan.

On site, maritime succulent scrub is dominated by jojoba (*Simmondsia chinensis*) and coastal prickly-pear (*Opuntia littoralis*) with lemonadeberry (*Rhus integrifolia*), California buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*) as conspicuous subdominant

species. Other species associated with the maritime succulent scrub on site include Mojave yucca (*Yucca schidigera*) and century plant (*Agave americana*). Although the on-site occurrence of this vegetation type does not contain many of the coastal species generally associated with it—such as Shaw's agave (*Agave shawii*), copper leaf (*Acalypha californica*), cliff spurge (*Euphorbia misera*), California bush sunflower (*Encelia californica*), and California box-thorn (*Lycium californicum*)—it does support native species in a relatively undisturbed state and, therefore, retains habitat function.

Disturbed Coastal Sage Scrub/Chaparral is a combination between two native vegetation communities, coastal sage scrub and chaparral. According to Holland (1986), coastal sage scrub is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as California sagebrush (*Artemisia californica*), California buckwheat, and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonade sumac and laurel sumac. Chaparral is a drought- and fire-adapted community of woody shrubs, 1.5–3.0 meters tall, frequently forming dense, impenetrable stands. It develops primarily on mesic north-facing slopes and in canyons and is characterized by crown-sprouting or stump-sprouting species that regenerate following burns or other ecological catastrophes. This vegetation community is typically a mixture of chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), ceanothus (*Ceanothus* spp.), interior scrub oak (*Quercus berberidifolia*), laurel sumac, and black sage *(Salvia mellifera*). Within the Project study area, these two vegetation communities intergrade and occur both as native and disturbed forms. Disturbance is likely attributed to anthropogenic influences including illegal dumping and transient use. This is evident through the presence of fill, trash, exotic species, and noted signs of transient encampments scattered throughout the canyon slopes and bottom.

Figure 3 Biological Resources Map

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Disturbed coastal sage scrub/chaparral is characterized by many native species—including California sagebrush, California buckwheat, lemonade sumac, laurel sumac, black sage, hollyleaf redberry (*Rhamnus ilicifolia*), woolyleaf ceanothus (*Ceanothus tomentosus*), and toyon (*Heteromeles arbutifolia*)—although there is at least 20% non-native cover, which includes bromes (*Bromus diandrus, B. madritensis*), cultivated radish (*Raphanus sativus*), bull thistle (*Cirsium vulgare*), and crowndaisy (*Glebionis coronaria*). Disturbed coastal sage scrub/chaparral occupies 0.13 acre on the north-facing slope of the canyon (Figure 3). Disturbed coastal sage scrub/chaparral is ranked as Tier II and is considered special status under the City's Subarea Plan.

Urban/Developed Land, according to Oberbauer et al. 2008, represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping. Urban/developed land is not regulated by the environmental resource agencies and is often considered a disturbed category. This land cover is ranked as Tier IV and is not considered special status under the City's Subarea Plan.

Within the study area, urban/developed land includes the homes, existing paved parking areas, paved City streets/sidewalks, existing developed structures, and commercial greenbelts/landscaping. Urban/developed land is the predominant land cover observed and occupies 1.4 acres throughout the study area (Figure 3).

Disturbed Land is a land cover type characterized by a predominance of non-native species, often introduced and established through human action. Oberbauer et al. (2008) describes disturbed land as areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continues to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species (i.e., weeds). This land cover is ranked as Tier IV and is not considered special status under the City's Subarea Plan.

Approximately 0.56 acre of disturbed land is within the study area and is located primarily on the south-facing slopes of the canyon extending north toward the canyon bottom (Figure 3). On site, disturbed land is composed of bare ground, cultivated radish, tree of heaven (*Ailanthus altissima*), hottentot fig (*Carpobrotus edulis*), and other non-native forbs and herbs that have recruited from adjacent yards and properties.

Eucalyptus Woodland, although not recognized by Holland (1986) as a native plant community, is a distinct "naturalized" vegetation type that is fairly widespread throughout Southern

California and is considered a woodland habitat. It typically consists of monotypic stands of introduced Australian eucalyptus trees (*Eucalyptus* spp.). The understory is either depauperate or absent owing to shade and the possible allelopathic (i.e., toxic) properties of the eucalyptus leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species. Within the Project study area, this 0.12-acre monotypic vegetation community is characterized by river redgum (*Eucalyptus camaldulensis*). Eucalyptus woodland is ranked as Tier IV and is not considered special status under the City's Subarea Plan. Impacts to these areas do not require mitigation.

Ornamental Plantings are a land cover type that refers to areas where non-native ornamental species and landscaping schemes have been installed and maintained. Ornamental plantings are not regulated by the environmental resource agencies and are included within the disturbed category according to the City's Biology Guidelines (City of San Diego 2012a). This land cover is ranked as Tier IV and is not considered special status under the City's Subarea Plan. Impacts to these areas do not require mitigation.

A total of 0.22 acre of ornamental plantings associated with the landscaped yards of single-family residences is mapped in several locations throughout the study area. This habitat type supports myriad ornamental species, including, not limited to, hottentot fig, jade plant (*Crassula argentea*), Peruvian pepper tree (*Schinus molle*), Brazilian pepper tree (*Schinus terebinthifolius*), and red apple iceplant (*Aptenia cordifolia*).

Wetlands Delineation

Hydrology and vegetation were examined throughout the Project study area but, because no potential wetland sites or non-wetland waters (e.g., drainages and channels) were identified, no data station pits were dug, and no formal wetland determination data forms were recorded. No jurisdictional wetlands or non-wetland waters of the United States (based on definitions of the City, state, and federal agencies) occur within the study area.

Plants and Animals

A total of 29 species of vascular plants, 13 native and 16 non-native, were recorded during the biological reconnaissance survey (Appendix A). The diversity of native plant species is low due to the existing development and urban setting of the study area.

A total of seven wildlife species were recorded in the study area during the survey (Appendix B). The wildlife species observed are common, disturbance-adapted species typically found in urban and suburban settings, such as house finch (*Carpodacus mexicanus*), American crow (*Corvus brachyrhynchos*), and mourning dove (*Zenaida macroura*). Sign of one mammal species, Botta's

pocket gopher (*Thomomys bottae*), was observed within the study area. No reptiles or amphibians were observed during the survey. There is minimal suitable habitat for small wildlife species (e.g., reptiles, amphibians, and small mammals) within the study area due to the proximity to residential development, the steep slopes, and disturbed nature of the surrounding habitat. Overall, the diversity of wildlife species in the study area is low due to the extent of existing development and urban setting of the study area.

Special-Status Plants and Animals

No federally or state-listed species or other special-status species were observed during the survey. Due to the limited amount of suitable habitat for these species, the generally disturbed nature of the site, and proximity of urban development, the site conditions limit the potential for special-status plants and other special-status animal species to occur on site.

A search of CNPS and CNDDB records was utilized to develop matrices of special-status plant and wildlife species that may have potential to occur on site due to the presence of suitable habitat (taking into consideration vegetation communities, soils, elevation, and geographic range, life form/blooming period, etc.). These two matrices of special-status plant and wildlife species (i.e., federally, state, or locally listed species), their favorable habitat conditions, and their potential to occur on site based on the findings of the field investigations are presented in Appendices C and D, respectively. Species considered special status under the City's Subarea Plan, including Narrow Endemic Species, are also included in these appendices.

None of the plant species presented in Appendix C were detected during the field survey, and given the lack of native soils and extent of developed/disturbed land covers, special-status plants are not expected to occur in the study area.

None of the wildlife species presented in Appendix D were detected during the field survey; however, there were three species determined to have a moderate potential to occur on site. Cooper's hawk (*Accipiter cooperii*), a Watch List and MSCP Covered species, is a resident of San Diego County and has become more adaptive and more frequently observed in urban areas (Unitt 2004). This species may roost on site in the eucalyptus, although there are likely limited foraging opportunities for this species within the Project study area. Western bluebird (*Sialia mexicana*), an MSCP Covered species, has moderate potential to occur within the Project study area as this species has also been expanding into coastal San Diego neighborhoods in recent years and may potentially forage or nest on site.

One mammal species, silver-haired bat (*Lasiurus noctivagans*), was also determined to have moderate potential to forage and roost within the eucalyptus trees found within the Project study area. This species is found in woodland and riparian habitats in coastal California (Zeiner et al. 1990).

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6.0 RELATIONSHIP TO MSCP

The MSCP is a long-term regional conservation plan established to protect special-status species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another. The entire Project site is within the City Subarea Plan. This subarea encompasses 206,124 acres and is generally characterized by urban land use. The City Multi-Habitat Planning Area (MHPA) is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997). In addition, the City has worked in conjunction with the State and Federal wildlife agencies (CDFW and USFWS) and SANDAG to develop a GIS mapping system within the MSCP in order to track the status of habitat within the plan area and ensure that the appropriate information is collected for the MSCP's required annual reporting. This mapping system is known as HabiTrak and, along with MHPA lands, there are lands within the project area that are identified as HabiTrak gains areas (HGA).

The Project site lies within the south–central portion of the City's MSCP boundary. Figure 3 depicts the MHPA as occurring over half of the entire Project study area and HGA occur over approximately 15% of the project area, including the portion of the proposed pipeline alignment that extends into the undeveloped canyon.

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7.0 PROJECT DESCRIPTION

The City's Public Works Department is planning to replace approximately 26 linear feet of existing storm drain pipe on Hayes Avenue; abandon approximately 150 linear feet of existing storm drain pipe at 820 Hayes Avenue; install approximately 250 linear feet of storm drain pipe at the alley between 906 Hayes Avenue and 930 Hayes Avenue and down the canyon; install 100 linear feet of storm drain pipe on Hayes Avenue; and install an energy dissipater (9' x 11') at the bottom of the canyon, a box culvert at the end of Hayes Avenue (24"x12"), and a clean out (3.5' in diameter) at the end of the alleyway north of Hayes Avenue; Figure 3). A 3-foot-wide trench on Hayes Avenue will need to be excavated to install the new 18-inch reinforced concrete pipe (RCP) storm drain next to an existing 160-linear feet storm drain main. The trench will be 3–10 feet deep.

Construction access paths and staging areas will be sited on Hayes Avenue. Work will be confined to a 15-foot-wide temporary construction easement where ground-disturbing activities and temporary construction staging will occur. As illustrated on Figure 3, much of the work will occur within Hayes Avenue, although some of the work will be conducted on the north-facing slope of an undeveloped canyon in the MHPA, which supports native vegetation.

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8.0 IMPACTS ANALYSIS

This section addresses direct impacts and indirect impacts that will result from implementation of the Project.

Direct Impacts include both the permanent loss of on-site habitat and the plant and wildlife species that it contains and the temporary loss of on-site habitat. Direct impacts were quantified by overlaying the proposed temporary construction easement and impact alignment onto the biological resources map. Direct impacts include utility trenching and any other impacts that might result in ground disturbance. For purposes of this assessment, the biological resources within these limits are considered to be temporarily directly affected because the direct impact areas will be recontoured and revegetated with native species following Project completion. No permanent landform alteration is proposed as part of the Project. While trenching is a direct impact, the disturbance associated is temporary because the landform/drainage will remain the same. Thus, no direct permanent impacts are anticipated.

Indirect Impacts refer to off-site and on-site effects that are short-term impacts (i.e., temporary) due to the Project construction or long-term (i.e., permanent) design of the Project and the effects it may have to adjacent resources. For this Project, it is assumed that the potential indirect impacts resulting from construction activities may include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality and construction-related soil erosion and runoff. With respect to these latter factors, however, Project grading will be subject to the typical restrictions (e.g., best management practices (BMPs)) and requirements that address erosion and runoff, including the federal CWA, National Pollution Discharge Elimination System (NPDES), and preparation of a Water Pollution Control Plan (WPCP).

Cumulative Impacts refer to incremental individual environmental effects of two or more projects when considered together. These impacts taken individually may be minor, but collectively significant as they occur over a period of time.

8.1 Direct Impacts

Vegetation Communities and Land Covers

The Project results in approximately 0.16 acre of total direct temporary impacts to one vegetation community and three land cover types (Figure 3; Table 3).

Table 3Direct Temporary Impacts of the Project

Vegetation Community/Land Cover Type	Subarea Plan Tier*	Within MHPA (acres)	Outside MHPA (acres)	Total Acreage
Vegetation Community				
Maritime Succulent Scrub (MSS)	II	0.002	0	0.002
Disturbed Coastal Sage Scrub/Chaparral (dCSS-CHAP)	II	0.01	0	0.01
Non-Native Uplands and Land Covers				
Urban/Developed (DEV)	IV	0	0.09	0.09
Disturbed (DIS)	IV	0.04	0.01	0.05
Ornamental Plantings (ORN)	IV	0	0.008	0.008
	Total			**0.16**
It should be noted that Total acreage shown in this table is the total acreage of the listed vegetation / land cover type impacted and not a sum of the acreages listed as Habitrak and MHPA impacts since those acreages have some overlap as shown on Figures 3 & 4.				

* Vegetation Tiers are defined by the City Biology Guidelines (City of San Diego 2012a).

The Project will directly temporarily impact 0.009 acre of disturbed coastal sage scrub-chaparral. The impacts to Tier II habitat are less than 0.1 acre and are therefore not considered significant because they do not exceed the minimum 0.1-acre threshold established in the City's Biology Guidelines (City of San Diego 2012a). No mitigation is required for these impacts.

Additionally, because urban/developed lands, disturbed land, and ornamental plantings provide little native habitat value and foraging opportunities for wildlife, particularly when they occur in densely urban environments such as the Project, impacts to these vegetation communities/land covers would not be considered significant.

The Project does not include work in areas within or adjacent to the boundaries of waters of the United States or wetlands. Thus, impacts to waters of the United States or wetlands would not occur.

Special-Status Plants

No special-status plants were detected in the study area during the 2013 general biological reconnaissance survey. There are no special-status plant species with a moderate or high potential to occur within the study area, and given the lack of native habitats and suitable substrate, special-status plant species are not expected to occur (Appendix C). Therefore, no significant impacts to special-status plants are anticipated.

Special-Status Wildlife

No special-status wildlife species were detected during the 2013 field assessments on site; however, there is moderate potential for Cooper's hawk (state-listed watch list species and MSCP Covered species), western bluebird (MSCP Covered species), and silver-haired bat (Western Bat Working Group medium priority species). Although these species are found in San Diego County

and there is suitable habitat on site, these species are not expected to occur within the Project boundary due to the proximity of the site to urban development and the limited suitable foraging, nesting, or roosting habitat found within the Project study area. Based on this information, significant direct impacts to these and other special-status wildlife species are not expected to occur (Appendix D). Therefore, no significant impacts to special-status wildlife are anticipated.

8.2 Indirect Impacts

Potential short-term indirect impacts to biological resources as a result of the current Project are related to overall project construction activities and may include dust, noise, general human presence, and construction-related soil erosion and runoff. Potential long-term indirect impacts to biological resources may also occur as a result of the proposed Project through introduction of non-native species, increased human presence, and construction-related noise.

In accordance with the City's Subarea Plan and pursuant to the San Diego RWQCB Municipal Permit and the City's Stormwater Standards Manual (SWSM; City of San Diego 2012b), projects are required to implement site design, source control, and treatment control BMPs. Development projects will be required to meet NPDES regulations and incorporate BMPs during construction and permanent BMPs as defined by the City's SWSM as part of the Project development.

Vegetation Communities

One native vegetation community, disturbed coastal sage scrub/chaparral, was mapped within the Project impact footprint. Maritime succulent scrub was mapped outside of the Project impact footprint but is within the larger study area. There are currently two storm drains at the west end of Hayes Avenue, which drain north and downslope of the Project study area. Runoff from this area flows toward the San Diego River, which supports a corridor of riparian vegetation and ultimately flows north of Ocean Beach to the Pacific Ocean. Implementation of stormwater regulations are expected to substantially control adverse edge effects (e.g., erosion, sedimentation, habitat conversion) during and following construction both adjacent and downstream from the site. Therefore, indirect impacts to off-site vegetation communities, including potential jurisdictional riparian areas within the San Diego River, are not expected to be significant.

Special-Status Plants

There are no vegetation communities that have the potential to support special-status plant species adjacent to the Project site, and therefore, indirect impacts to off-site special-status plant species are not expected to occur.

Special-Status Wildlife

Most of the indirect impacts to vegetation communities and special-status plants previously described can also affect special-status wildlife. Wildlife may also be indirectly affected in the short-term and long-term by construction-related noise—which can disrupt normal activities and subject wildlife to higher predation risks—and adverse edge effects can cause degradation of habitat quality through the invasion of pest species. Breeding birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities. Although the areas within the Project boundary support limited suitable vegetation for bird nesting, trees associated with the street and property landscaping, particularly the eucalyptus, may support nesting habitat for raptors and songbirds protected by the MBTA. Indirect impacts from construction-related noise may occur to breeding wildlife if construction occurs during the breeding season (i.e., February 1 through September 15). This impact would be considered a significant impact, absent mitigation (BIO-2).

No direct impacts to jurisdictional waters of the U.S./State, including wetlands, would occur as a result of project implementation.

8.3 Cumulative Impacts

The MSCP is a long-term regional conservation plan established to protect sensitive species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another. The Project site is within the City of San Diego subarea plan and inside the MSCP Preserve area (i.e., the MHPA).

In an effort to eliminate cumulative impacts to sensitive biological resources throughout San Diego, the City is participating in a regional conservation planning effort, San Diego MSCP. This planning effort is designed to address cumulative impacts through development of a regional plan that addresses impacts to covered species and habitats in a manner that assures their conservation despite impacts of cumulative project over the long term. The ultimate goal of this plan is the establishment of biological reserve areas in conformance with the State of California NCCP Act.

As previously discussed, the Project site lies within the south–central portion of the City's MSCP boundary. Approximately 1.0 acre of the 2.6-acre study area is located within the MHPA. The MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas (BRCAs) and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

Preservation of habitat, planning in accordance with the biological resource conservation goals of the MSCP and limitation of impacts in accordance with the MSCP is intended to mitigate cumulative biological resource impacts. A portion of the alignment is located within designated MHPA. Mitigation for impacts to this area would comply with the City's Biology Guidelines (City of San Diego 2012a). Therefore, the proposed project is consistent with the MSCP and cumulative impacts to uplands, sensitive plants, and sensitive wildlife will be mitigated through implementation of the plan.

8.4 Consistency with the MSCP

The Project is a compatible land use within the MHPA and follows the siting criteria outlined in Subsection 1.4.2 of the MSCP. Because a portion of the Project occurs within the MHPA, the Project is required to document compliance with the MSCP Land Use Adjacency Guidelines. A matrix has been prepared documenting the Project's compliance with the MSCP (Table 4).

Table 4
Project Consistency Determination with MSCP Land Use Adjacency Guidelines

MHPA Adjacency Guidelines Section 1.4.3 of the MSCP Subarea Plan	Applicability	Implementation
Drainage: *All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.*	Ground disturbance for the project will largely consist of utility trenching, which will create no runoff potential. Consistent with the City Storm Water Standards, existing previously legal drainage which flows toward the MHPA shall be minimized.	The MHPA boundary and the limits of ground disturbance shall be clearly delineated on the construction documents and surveyed by the contractor. At the conclusion of the project, the existing grade will be restored and the current drainage patterns will be unchanged.
Toxics: *Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.*	No hazardous construction materials storage would be allowed which could impact the adjacent MHPA (including fuel or sediment) and any drainage from the construction site must be clear of such materials. Consistent with the City Storm Water Standards, existing previously legal drainage which flows toward the MHPA shall be minimized.	The contractor shall ensure all areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction related activities are within the limits of the project Area of Potential Effect (APE).
Lighting: *Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive*	No additional permanent lighting or night work is proposed for this project.	N/A

Table 4
Project Consistency Determination with MSCP Land Use Adjacency Guidelines

MHPA Adjacency Guidelines Section 1.4.3 of the MSCP Subarea Plan	Applicability	Implementation
species from night lighting.		
Noise: *Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.*	Direct impacts to nesting water birds are not anticipated from the project description as no trees would be removed or existing shore bird nesting areas disturbed; however, covered species have a moderate to high potential to forage, roost, and nest in the area and adjacent to the project vicinity.	Protocol surveys may be required for potential impacts to certain avian species during their breeding season: California Gnatcatcher (3/1-8/15): N/A Least Bell's vireo (3/15-9/15): N/A Southwestern Willow Flycatcher (5/1-8/30): N/A Cooper's hawk (1/15 – 8/31)
Barriers: *New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.*	The proposed project involves the extension of a new utility pipeline in developed and undeveloped areas. However, the pipeline will be installed below ground and all areas temporarily disturbed by construction will be restored to pre-construction contours and conditions. No permanent barriers are required or proposed.	N/A
Invasives: *No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.*	Plant species within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC142.0400 and per table 142-04F, Revegetation and Irrigation Requirements) and be non- invasive.	The contractor shall permanently revegetate all graded, disturbed, or eroded areas that will not be permanently paved or covered by structures.
Brush Management: *New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA.*	The project is not a structural development and would not create any new brush management zones.	N/A
Grading/Land Development: *Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.*	No manufactures slopes are associated with the proposed project.	N/A

Current citywide storm drain design involves area-wide drainage analysis with the intent of routing pipelines in developed or non-sensitive areas and reducing the number of outfalls where possible. Storm drain replacement projects are intended to upgrade the efficiency of a

deteriorated facility to serve an existing service areas. As such, no introduction or increase in urban runoff, invasive species, or toxic substances would result with project implementation.

The proposed alignment has been selected because it addresses erosion caused by the failed storm drain and associated unprotected outfall. The slope has eroded over the years since appropriate energy dissipation no longer exists at the outfall and the failed storm drain has increased the rate of the erosion. This erosion is undermining existing habitat within the MHPA and HGA, as well as causing unwanted sediment to be discharged downstream into the MHPA and HGA. As shown on Figure 3, the alignment would intersect and temporarily impact 0.05 acre of MHPA lands (as shown in Table 3) and 0.04 acre of HGA. The construction of the proposed storm drain alignment would allow for the repair and stabilization of the eroded slope, would contribute to successful restoration and protection of native habitat and reduce sediment prior to release into the MHPA and HGA. These project features would enhance the water quality tributary to the MHPA and HGA. The slope repair would reduce possible slope and storm drain failures in the future; therefore, prolonging the life of the proposed storm drain and preventing potential damage to adjacent homes. Because impacts associated with the Project are temporary in nature and all lands disturbed during construction will be improved from pre-construction contours and conditions, the Project will not impact the goals and objectives of the City's Subarea Plan. Thus, the Project is consistent with the guidelines and policies of the MSCP. Temporary runoff related to construction activities may have the potential to indirectly impact the MHPA (BIO-3).

8.5 Essential Public Project Alternatives Analysis

The Hayes Avenue storm drain replacement project is considered an Essential Public Project (EPP) according to the City's Biological Guidelines since it will maintain existing public infrastructure through the replacement existing corrugated steel pipe with reinforced concrete pipe as well as installation of new RCP and associated cleanouts, dissipater, etc..... Based on the Biological Guidelines, the proposed project impacts to the MHPA outside of the Coastal Overlay Zone may be considered only if the project alignment is shown to be "located on the least sensitive portion of the site." No wetland impacts are anticipated to result from the proposed project.

Alternatives to the proposed project are described below to demonstrate that the proposed project and alignment are "located on the least sensitive portion of the site", as described above. These alternatives address: 1) No project alternative; 2) Reroute the alignment to the next closest existing storm drain outfall; 3) Utilize the proposed replacement alignment, but do not extend features into the dCSS CHAP.

No Project Alternative

Under this alternative, there would be no storm drain replacement and the existing storm drain and curb inlet would be left in place. This would result in no cost and no impacts to wetlands. However, this alternative would result in additional erosion and sediment deposition within MHPA and HGA lands, resulting in negative impacts to these sensitive areas.

Reroute the alignment to the next closest existing storm drain outfall

The Hayes Avenue storm drain inlet is at a low point, so routing the storm drainpipe to the next closest existing storm drain system would result in digging a much longer and deeper trench than required by the chosen alignment. Routing the drainage to the next nearest storm drain would require a trench over 30 feet deep, and over 600 feet long, as compared with the chosen alignment which requires 436-foot long trench at a depth of up to 19 feet. This 30-foot depth would require the very costly lowering of the entire adjacent storm water system, including inlets and cleanouts, and require the lengthening of that system's outfall drainpipe, which would likely lead to impacts to sensitive bio resources. While keeping the alignment under the street would avoid easement issues, the changes described above would amount to over-engineering at a great expense to replace two storm drain systems with one, when it is much more efficient and affordable to maintain each independently. Therefore, this option would not be feasible.

Utilize the proposed replacement alignment, but do not extend features into the dCSS-CHAP

Keeping the alignment under the street and alley would avoid easement issues, but it would risk undermining the hillside because water emanating from the outfall would erode the hillside quicker and result in larger impacts to sensitive habitats in the long term, and would require an eventual replacement sooner than with the chosen alignment. Therefore, this would not be an acceptable option.

Conclusion

As mentioned previously, the City's Biological Guidelines state that development within the MHPA (outside of the Coastal Overlay Zone) may be considered only if the project alignment is shown to be "located on the least sensitive portion of the site." The proposed project alignment keeps the storm drain replacement activities in the public right of way and in city owned property, so no easements are necessary. By running the outfall to a low point, the proposed design avoids the erosion issues caused by allowing the drain to outfall partway down the hill

that would risk undermining the hillside and impacting adjacent sensitive habitat as well as the new storm drain. The discussion above demonstrates that this is the best option in this scenario.

9.0 MITIGATION

This section describes the MMs required to avoid indirect impacts to breeding birds and to limit potential runoff into the MHPA. These MMs will reduce identified and potential significant impacts to a level that is less than significant pursuant to CEQA.

BIO-1 Construction may result in the recruitment of non-native plant species within the temporary disturbance areas and the removal of native plant species.

MM-1 Temporary disturbance areas will be restored to pre-construction topographic contours and conditions including the revegetation of native plant communities, where appropriate. Habitat restoration and erosion control treatments will be installed within temporary disturbance areas, in accordance with the City's Biology Guidelines and Landscape Regulations (City of San Diego 2012a). Habitat restoration will feature native species that are typical of the area, and erosion control features will include silt fence and straw fiber rolls.

BIO-2 Construction-related noise direct and indirect impacts may occur to breeding wildlife, including the federally threatened California gnatcatcher and the MSCP covered species Cooper's hawk, if construction occurs during the breeding season (i.e., March 1 through August 15 for California gnatcatcher, January 15 through August 31 for Cooper's hawk, and February 1 through September 15 for other breeding species).

MM-2 (a) To avoid any direct impacts to raptors, including Cooper's hawk, and/or any native/migratory birds, removal of habitat that supports active nests in the proposed Project area should occur outside of the breeding season for these species (January 15 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds in the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the preconstruction survey to the City's Development Services Department (DSD) for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that

take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City DSD for review and approval and implemented to the satisfaction of the City. The Biologist in concert with the City shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction. If Cooper's hawk nesting is detected, then a 300-foot impact avoidance area shall be included in the mitigation plan and this buffer shall be established around the active nest using orange fencing or other clear demarcation method. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.

MM-2(b) Prior to the preconstruction meeting, the City Project Manager (or appointed designee) shall verify that the Habitrak Gains and MHPA boundaries and the project requirements regarding the California gnatcatcher, as specified below, are shown on the construction plans.

No clearing, grubbing, grading, or other construction activities shall occur during the California gnatcatcher breeding season (March 1 to August 15), until the following requirements have been met to the satisfaction of the City Manager:

1. A Qualified Biologist (possessing a valid ESA Section 10(a)(1)(a) Recovery Permit) shall survey those habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 decibels [db(a)] hourly average for the presence of the California gnatcatcher. Surveys for California gnatcatcher shall be conducted pursuant to the protocol survey guidelines established by the USFWS within the breeding season prior to the commencement of any construction. If California gnatcatchers are present, then the following conditions must be met:

    a. Between March 1 and August 15, no clearing, grubbing, or grading of occupied California gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

    b. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 db (a) hourly average at the edge of occupied California gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 db (a) hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or

registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or

c. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 db(a) hourly average at the edge of habitat occupied by the California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 db (a) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB (A) hourly average or to the ambient noise level if it already exceeds 60 dB (A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If California gnatcatchers are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 and August 15 as follows:

   a. If this evidence indicates that the potential is high for California gnatcatcher to be present based on historical records or site conditions,

then Condition 1(a) shall be adhered to as specified above.

b. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

BIO-3 Project-related runoff may enter the MHPA, which surrounds much of the Project disturbance area.

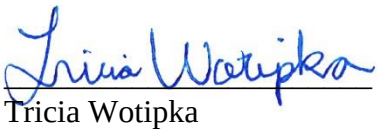
MM-3 The Project will incorporate methods to control runoff, including site design, source control, and treatment control BMPs. Development projects will be required to meet NPDES regulations and incorporate BMPs during construction and permanent BMPs as defined by the City's SWSM as part of the Project development. This MM is in accordance with the City's Subarea Plan and pursuant to the San Diego RWQCB Municipal Permit and the City's Stormwater Standards Manual (City of San Diego 2012b).

10.0 ACKNOWLEDGMENTS

This report was prepared by Dudek senior biologist Tricia Wotipka with review by Dudek senior biologist and project manager, Vipul Joshi. Ms. Wotipka has over 13 years of experience in the field of terrestrial biology and wetland ecology throughout southern California, with a focus in San Diego County. She currently holds a Section 10(a)(1)(A) Recovery Permit from the USFWS to perform surveys for the federal threatened California gnatcatcher (*Polioptila californica californica*) and federal endangered quino checkerspot butterfly (*Euphydryas editha quino*). Graphics were provided by Spenser Lucarelli; Steve Taffola and Corinne Price provided word processing.

If you have any questions regarding this report, please contact me via telephone at 760.479.4295 or via email at twotipka@dudek.com.

Very truly yours,



Tricia Wotipka
Senior Biologist

cc: Vipul Joshi, Dudek
Carrie Purcell, City of San Diego Public Works Department

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11.0 REFERENCES CITED

16 U.S.C. 703–712. 1918. Migratory Bird Treaty Act, as amended.

ACOE. 1987. *Corps of Engineers Wetlands Delineation Manual.* Wetlands Research Program Technical Report Y-87- 1.

ACOE (United States Army Corps of Engineers). 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*Version 2.0*). September.

AOU. 2012. *Check-List of North American Birds: List of the 2,078 Bird Species Known From the AOU Check-list Area*. Accessed from http://www.aou.org/checklist/north/full.php.

Bing Maps. 2013. Accessed online: www.bing.com/maps/.

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1*. United States Department of the Agriculture. 104 pp. + appendices.

CDFG. California Natural Diversity Data Base. 2011. Special Animals. Biannual publication, mimeo. January. 60 pp.

CDFW (California Department of Fish and Wildlife). 2013a. California Natural Diversity Database. Rarefind Version 4. On-line database.

CDFW. 2013b. California Natural Diversity Database. State and Federally Listed Endangered and Threatened Animals of California. Biannual publication, mimeo. October. 14 pp.

CDFW. 2014. California Natural Diversity Database. 2014. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication, mimeo. January. 87 pp.

City of San Diego. 1997. City of San Diego Final MSCP Subarea Plan. Prepared by the City of San Diego Community and Economic Development Department. March 1997.

City of San Diego. 2008. City Coastal Zone Map No. C-908. City Development Code Chapter 13, Article 2, Division 4.

City of San Diego. 2012a. San Diego Land Development Code Biology Guidelines. Amended April 23, 2012 by Resolution No. R-307376.

City of San Diego. 2012b. *Storm Water Standards Manual*. January.

CNPS (California Native Plant Society). 2013. Inventory of Rare and Endangered Plants (online edition, v8-01a). Sacramento, California: California Native Plant Society. Accessed September 2013. http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi.

Crother, B.I. 2008. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding*. 6th ed. Herpetological Circular no. 37. Society for the Study of Amphibians and Reptiles.

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game.* 156 pp.

Jepson Flora Project. 2013. Jepson eFlora. Berkeley, California: University of California. Accessed September 18, 2013. http://ucjeps.berkeley.edu/cgi-bin/get_JM_name_data.pl.

NABA (North American Butterfly Association). 2001. "Checklist of North American Butterflies Occurring North of Mexico." Adapted from North American Butterfly Association (NABA) Checklist and English Names of North American Butterflies, eds. B. Cassie, J. Glassberg, A. Swengel, and G. Tudor. 2nd ed. Morristown, New Jersey: NABA. Accessed May 2012. http://www.naba.org/pubs/enames2.html.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* March 2008. Accessed September 12, 2012. http://www.sdcanyonlands.org/canyon-groups/canyon-group-resources/canyon-enhancement-guide/189-canyon-enhancement-planning-guide-materials.

SDNHM (San Diego Natural History Museum). 2002. "Butterflies of San Diego County. Revised September 2002." Accessed May 2012 at http://www.sdnhm.org/archive/research/entomology/sdbutterflies.html.

SanGIS (San Diego Geographic Information Source). 2013. San Diego Geographic Information Source. Accessed October 2013. http://www.sangis.org/

Unitt, P. 2004. San Diego County Bird Atlas.

USDA (U.S. Department of Agriculture). 2013a. Natural Resources Conservation Service (NRCS). *Web Soil Survey* [web application]. http://websoilsurvey.nrcs.usda.gov/app/.

USDA. 2013b. "California." State PLANTS Checklist. Accessed September 18, 2013. http://plants.usda.gov/dl_state.html.

USFWS (U.S. Fish and Wildlife Service). 2013. "Critical Habitat and Occurrence Data" [map]. Accessed October 2013. http://www.fws.gov/data.

Wilson, D.E., and D.M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*. 3rd ed. Baltimore, Maryland: Johns Hopkins University Press.

Zeiner, D.C. W.F. Laudenslayer Jr., K.E. Mayer, and M. White. 1990. *California's Wildlife*, Vol. 3. *Mammals*. California Statewide Wildlife Habitat Relationships System. Sacramento, California: State of California Department of Fish and Game. April 1990.

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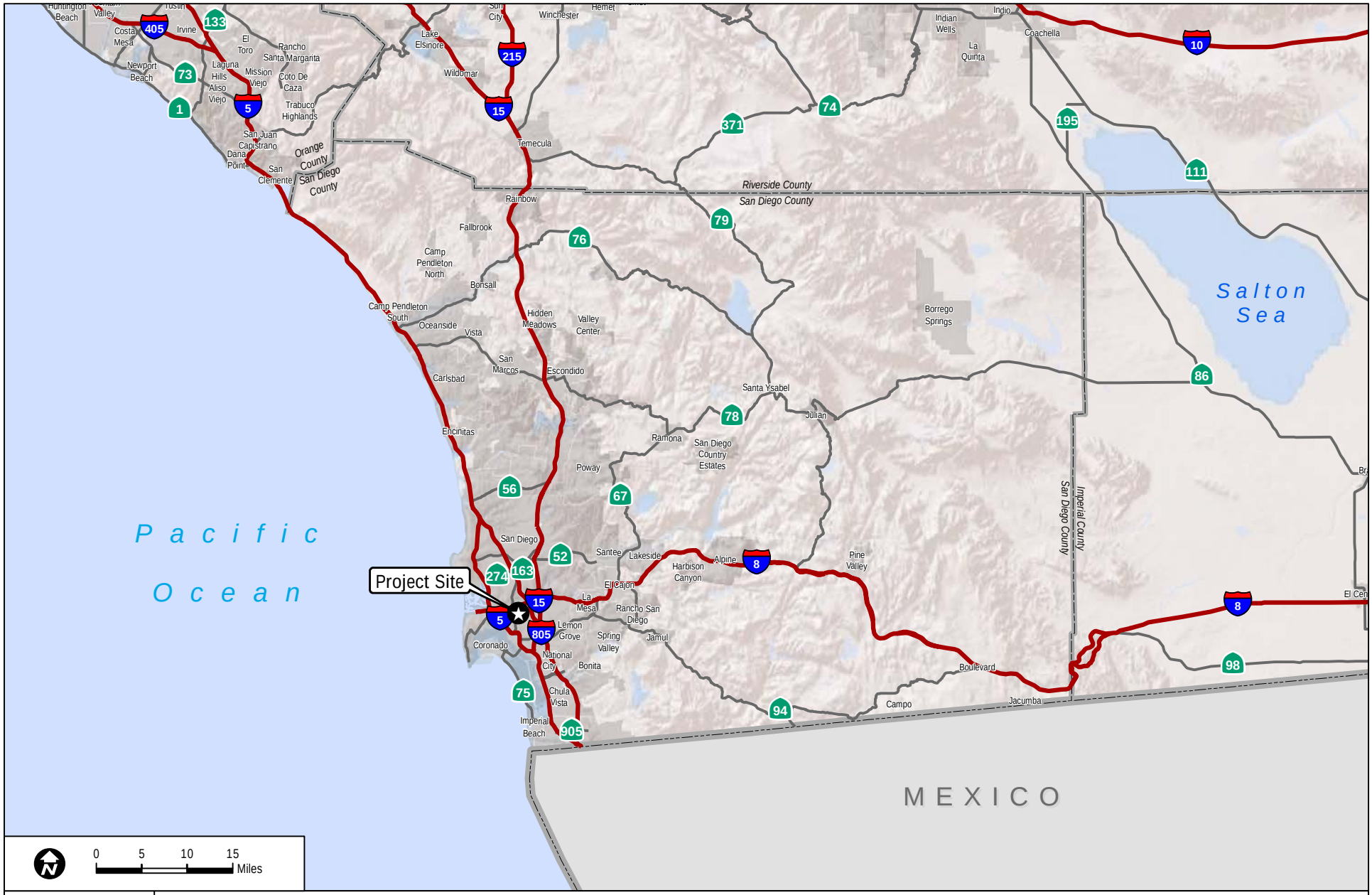

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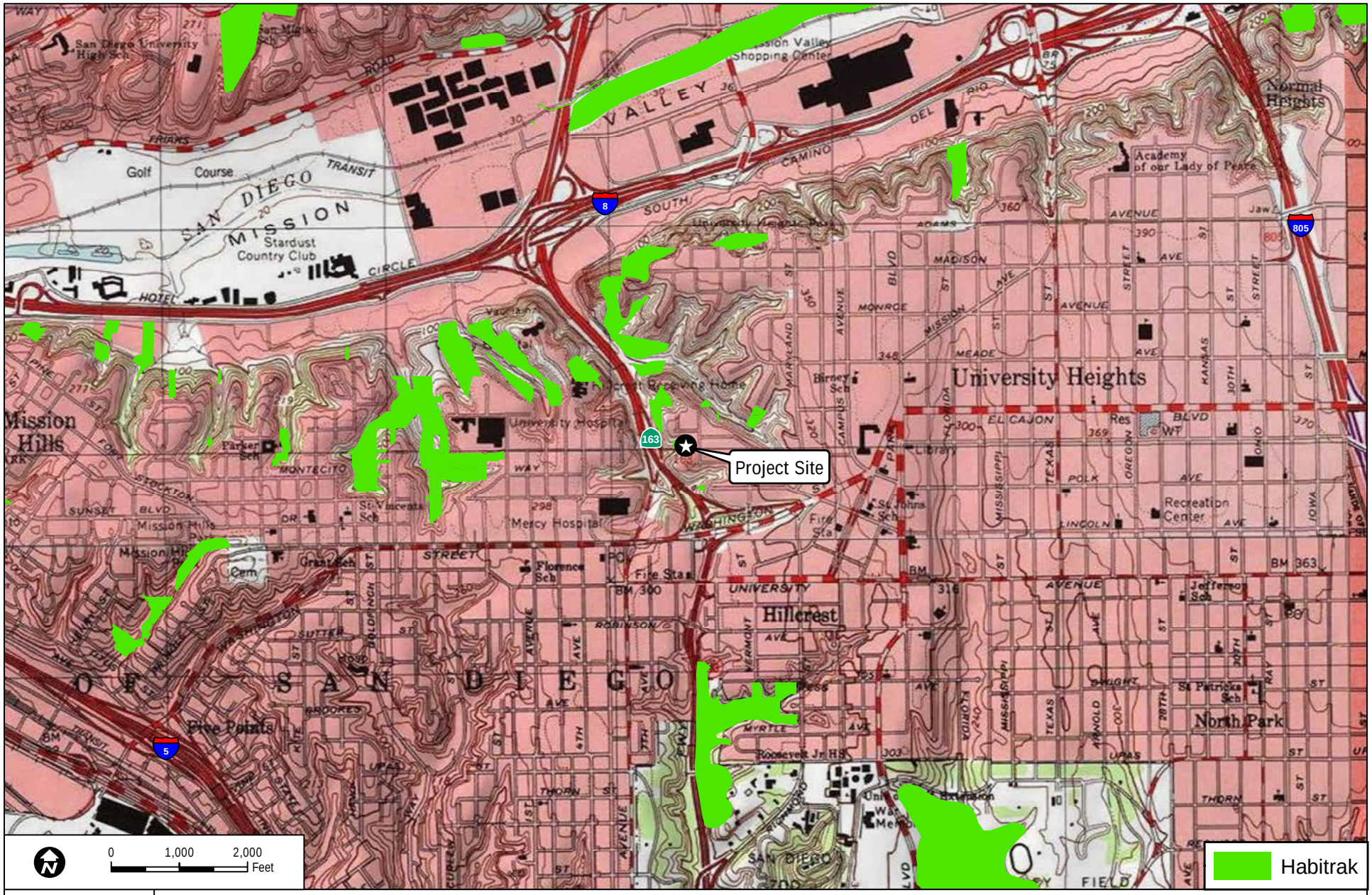
FIGURE 1

Regional Map

City of San Diego As-Needed: Phase 1 Hayes Ave Storm Drain



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SOURCE: USGS 7.5-Minute Series La Jolla Quadrangle.

FIGURE 2

Vicinity Map

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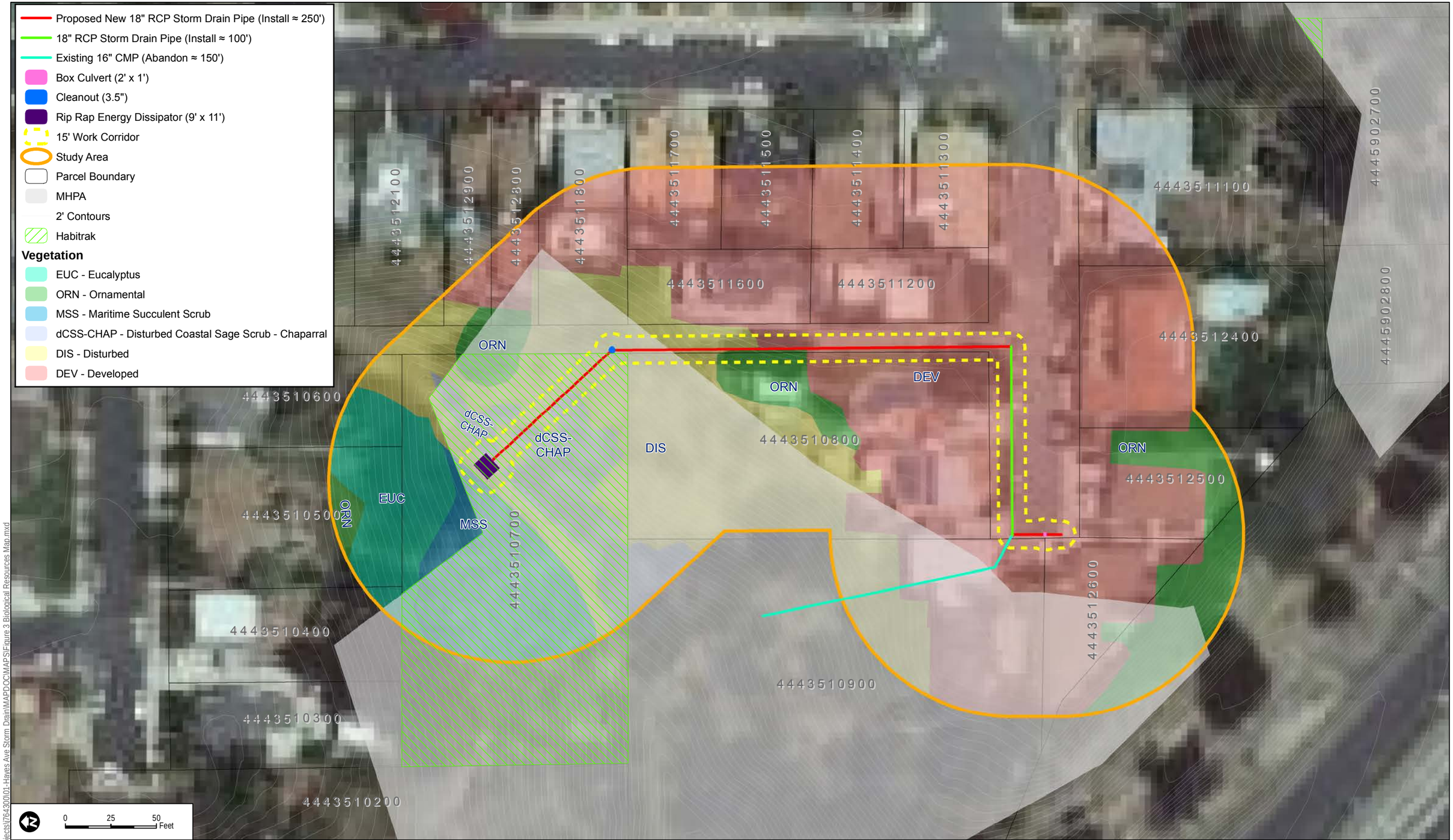
City of San Diego As-Needed: Phase 1 Hayes Ave Storm Drain



Document Path: Z:\Projects\7643\01-Hayes Ave Storm Drain\MAPDOC\MAPS\Figure 3 Biological Resources Map.mxd

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SOURCE: ArcGIS Online Imagery; Sewer Line from City of San Diego; Veg (Dudek 2013); San Diego County Parcels (2013)

7643-01

FIGURE 3

Biological Resources Map

City of San Diego As-Needed: Phase 1 Hayes Ave Storm Drain

APPENDIX A

List of Vascular Plant Species Observed within the Project Study Area

Appendix A
List of Vascular Plant Species Observed within the Project Study Area

VASCULAR SPECIES

DICOTS

***AIZOACEAE* – FIG-MARIGOLD FAMILY**

* *Aptenia cordifolia* – heartleaf iceplant

* *Carpobrotus edulis* – hottentot fig

***ANACARDIACEAE* – SUMAC OR CASHEW FAMILY**

Malosma laurina – laurel sumac

Rhus integrifolia – lemonade sumac

* *Schinus molle* – Peruvian peppertree

* *Schinus terebinthifolius* – Brazilian peppertree

***APOCYNACEAE* – DOGBANE FAMILY**

* *Nerium* oleander – oleander

***ASTERACEAE* – SUNFLOWER FAMILY**

* *Cirsium vulgare* – bull thistle

* *Glebionis coronaria* – crowndaisy

Artemisia californica – California sagebrush

***BRASSICACEAE* – MUSTARD FAMILY**

* *Raphanus sativus* – cultivated radish

***CACTACEAE* – CACTUS FAMILY**

Opuntia littoralis – coastal pricklypear

***CRASSULACEAE* – STONECROP FAMILY**

Crassula ovata – common jade plant

***LAMIACEAE* – MINT FAMILY**

* *Marrubium vulgare* – horehound

Salvia mellifera – black sage

***MYRTACEAE* – MYRTLE FAMILY**

* *Eucalyptus camaldulensis* – river redgum

***OXALIDACEAE* – OXALIS FAMILY**

* *Oxalis pes-caprae* – Bermuda buttercup

***POLYGONACEAE* – BUCKWHEAT FAMILY**

Eriogonum fasciculatum – California buckwheat

***RHAMNACEAE* – BUCKTHORN FAMILY**

Ceanothus tomentosus – woolyleaf ceanothus
Rhamnus ilicifolia – hollyleaf redberry

***ROSACEAE* – ROSE FAMILY**

Adenostoma fasciculatum – chamise
Heteromeles arbutifolia – toyon

***SIMAROUBACEAE* – QUASSIA OR SIMAROUBA FAMILY**

* *Ailanthus altissima* – tree of heaven

***SIMMONDSIACEAE* – JOJOBA FAMILY**

Simmondsia chinensis – jojoba

***TROPAEOLACEAE* – NASTURTIUM FAMILY**

* *Tropaeolum majus* – nasturtium

MONOCOTS

AGAVACEAE – AGAVE FAMILY

* Agave americana – American aloe
Yucca schidigera – Mojave yucca

***POACEAE* – GRASS FAMILY**

* *Bromus diandrus* – ripgut brome
* *Bromus madritensis* – compact brome

* signifies introduced (non-native) species

APPENDIX B

List of Wildlife Species Observed within the Project Study Area

Appendix B
List of Wildlife Species Observed within the Project Study Area

BIRD

EMBERIZINES

***EMBERIZIDAE* – EMBERIZIDS**

Melospiza melodia – Song sparrow

***FRINGILLIDAE* – FRINGILLINE AND CARDUELINE FINCHES AND ALLIES**

Carpodacus mexicanus – House finch

***TYRANNIDAE* – TYRANT FLYCATCHERS**

Sayornis nigricans – Black phoebe

***TROCHILIDAE* – HUMMINGBIRDS**

Calypte anna – Anna's hummingbird

***CORVIDAE* – CROWS AND JAYS**

Corvus brachyrhynchos – American crow

***COLUMBIDAE* – PIGEONS AND DOVES**

Zenaida macroura – Mourning dove

MAMMAL

***GEOMYIDAE* – POCKET GOPHERS**

Thomomys bottae – Botta's pocket gopher

APPENDIX C

Plant Species Potentially Occurring within the Project Study Area

Appendix C
Plant Species Potentially Occurring within the Project Study Area

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Abronia maritima	Red sand-verbena	None/None/None/4.2	Coastal dunes/Perennial herb/February–November/0–328 feet	Not expected to occur. The site is within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is no suitable vegetation present. This perennial species, if present, would have been observed during survey.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/MSCP NE/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay, openings/Annual herb/April–June/33–3,150 feet	Low potential to occur. The site is located within the species' known elevation range, the species is recorded in the vicinity[2] and within 0.5-mile buffer of the project area; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the site lacks suitable vernal pools and clay soils.
Acmispon prostratus	Nuttall's lotus	None/None/None/1B.1	Coastal dunes, coastal scrub; sandy soils/Annual herb/March–July/0–33 feet	Low potential to occur. There are suitable sandy soils present and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the site is located above the species' known elevation range.
Adolphia californica	California adolphia	None/None/None/2.1	Chaparral, coastal scrub, valley and foothill grassland; clay soils/Deciduous shrub/December–May/148–2,428 feet	Not expected to occur. The site is located within the species' known elevation range and the species is recorded in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the site lacks suitable clay soils. This perennial species, if present, would have been observed during survey.
Agave shawii var. *shawii*	Shaw's agave	None/None/MSCP NE/2.1	Coastal bluff scrub, Coastal scrub/perennial leaf and succulent/September–May/33–246 feet	Not expected to occur. The site is located slightly below the species' known elevation range, there is only disturbed coastal scrub/chaparral present within the project disturbance area and this species is only known to occur at three locations: Torrey Pines State Reserve, Point Loma, and east of Border Field Naval Reservation (CDFW 2013a). This perennial species, if present, would have been observed during survey.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/None/2.1	Coastal scrub/perennial shrub/April–June/180–509 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur in the vicinity[2]. This perennial species, if present, would have been observed during survey.
Ambrosia monogyra	Singlewhorl burrobush	None/None/None/2.2	Chaparral, Sonoran desert scrub/sandy/perennial shrub/August–November/33–1,640 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Ambrosia pumila	San Diego ambrosia	FE/None/MSCP NE/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/Rhizomatous herb/ April–October/66–1,362 feet	Low potential to occur. Suitable sandy loam soils are present, the site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and there are only 12 known occurrences within San Diego that are all located further inland (CDFW 2013).
Aphanisma blitoides	Aphanisma	None/None/MSCP/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub/sandy/annual herb/March–June/3–1,001 feet	Low potential to occur. The site is located within the species' known elevation range, suitable sandy soils are present and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/MSCP/ 1B.1	Chaparral; maritime, sandy soils/Evergreen shrub/ December–June/0–1,198 feet	Not expected to occur. There are suitable sandy soils present, the site is within the species' known elevation range, and there is moderately suitable habitat present; however, this species would have been observed if present and this species is not recorded in the vicinity[2].
Arctostaphylos otayensis	Otay manzanita	None/None/MSCP/1B.2	Chaparral, cismontane woodland; metavolcanic soils/evergreen shrub/January–April/902–5,577 feet	Not expected to occur. There is suitable habitat present, but there are no suitable soils, the site is located outside the species' known elevation range and the species is not known to occur in the vicinity[2]. This perennial species, if present, would have been observed during survey.
Artemisia palmeri	San Diego sagewort	None/None/None/4.2	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/Deciduous shrub/May–September/49–3,002 feet	Low potential to occur. The site is located within the species' known elevation range, there are suitable soils present, and this species is known to occur within the vicinity[2]; however, the site lacks suitable mesic conditions, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and this species would have been observed if present.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Asplenium vespertinum	Western spleenwort	None/None/None/4.2	Chaparral, cismontane woodland, coastal scrub; rocky soils/Rhizomatous herb/February–June/591–3,281 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area, the site is outside of the species' known elevation range and lacks suitable rocky soils.
Astragalus deanei	Dean's milk-vetch	None/None/None/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/perennial herb/February–May/246–2,280 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur in the vicnity[2].
Astragalus tener var. *titi*	Coastal dunes milk-vetch	FE/SE/MSCP/1B.1	Coastal bluff scrub, costal dunes, coastal prairie; often vernally mesic areas/Annual herb/March–May/3–164 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation present, the site lacks mesic conditions and the species is not known to occur within the vicinity[2].
Atriplex coulteri	Coulter's saltbush	None/None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay soils/Perennial herb/March–October/10–1,509 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks suitable soils. This perennial species, if present, would have been observed during survey.
Atriplex pacifica	South Coast saltscale	None/None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas/Annual herb/March–October/0–459 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area
Baccharis vanessae	Encinitas baccharis	FT/SE/MSCP NE/1B.1	Chaparral, cismontane woodland; and stone/Deciduous shrub/August–November/197–2,362 feet	Not expected to occur. The site is within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not recorded in the vicinity[2].
Berberis nevinii	Nevin's barberry	FE/SE/MSCP NE/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub/sandy or gravelly/perennial evergreen shrub/March–June/899–2,707 feet	Not expected to occur. There are suitable sandy soils present; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is outside of the species' known elevation range. This perennial species, if present, would have been observed during survey.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Bergerocactus emoryi	golden-spined cereus	None/None/None/2.2	Closed-cone coniferous forest, Chaparral, Coastal scrub/sandy/perennial stem; succulent/May–June/ 10–1,296 feet	Not expected to occur. The site is located within the species' known elevation range and there are suitable sandy soils present; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and this species is not recorded in the vicinity[2]. This perennial species, if present, would have been observed during survey.
Bloomeria clevelandii	San Diego goldenstar	None/None/MSCP/ 1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay soils/Bulbiferous herb/April–May/164–1,526 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur in the vicinity[2]; however, the site lacks suitable soils and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Brodiaea filifolia	Thread-leaved brodiaea	FT/SE/MSCP NE/1B.1	Chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools; often clay soils/Bulbiferous herb/March–June/82–3,675 feet	Not expected to occur. The site is located within the species' known elevation range; however, the site lacks suitable soils, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the species is not known to occur within the vicinity[2].
Brodiaea orcuttii	Orcutt's brodiaea	None/None/MSCP/1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay, sometimes serpentine soils/Bulbiferous herb/May–July/98–5,551 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks vernal pools and clay soils.
Calamagrostis koelerioides	Fire redgrass	None/None/MSCP/None	Meadows, slopes, dry hills, ridges/perennial herb/June–August/0–7,545 feet	Not expected to occur. The site is located within the species' known elevation range; however, the site lacks suitable meadow habitat and is commonly found at higher elevations in San Diego County and is not known to occur within the vicinity[2].
Calandrinia breweri	Brewer's calandrinia	None/None/None/4.2	Chaparral, Coastal scrub/sandy or loamy, disturbed sites and burns/annual herb/March–June/33–4,003 feet	Low potential to occur. The site is located within the species' known elevation range, there are suitable soils present and there is a limited patch of disturbed coastal scrub present; however, the species' is not known to occur within the vicinity[2].
California macrophylla	Round-leaved filaree	None/None/None/1B.1	Cismontane woodland, Valley and foothill grassland/clay/annual herb/March–May/49–3,937 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation present and the species is not known to occur within the vicnity[2].

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/None/3	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay soils/Annual herb/ March–May/0–984 feet	Low potential to occur. There is very a limited patch of disturbed coastal scrub, there are suitable sandy soils present and the site is located within the species' known elevation range; however, this species typically occurs along the immediate coast.
Caulanthus heterophylles	California mustard	None/None/MSCP/None	Dry, open scrub, chaparral, generally after fire disturbance/annual/March–May/0-4,593 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Ceanothus cyaneus	Lakeside ceanothus	None/None/MSCP NE/1B.2	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/April–June/771–2,477 feet	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. This perennial species, if present, would have been observed during survey.
Ceanothus verrucosus	Wart-stemmed ceanothus	None/None/MSCP/2.2	Chaparral/Evergreen shrub/December–May/3–1,247 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicnity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This species would have been observed if present.
Centromadia parryi ssp. *australis*	Southern tarplant	None/None/None/1B.1	Marshes and swamps, valley and foothill grassland, vernal pools/Annual herb/May–November/0–1,394 feet	Not expected to occur. The site is located within the species' known elevation range; however, suitable vernal pools and vegetation are absent and the species is not known to occur in the vicinity[2].
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/None/1B.1	Coastal bluff scrub, coastal dunes; sandy soils/Annual herb/January–August/0–328 feet	Not expected to occur. The site is located within the species' known elevation range and suitable sandy soils are present; however, there is no suitable vegetation present.
Chamaebatia australis	southern mountain misery	None/None/None/4.2	Chaparral(gabbroic or metavolcanic)/perennial evergreen shrub/November–May/984–3,346 feet	Not expected to occur. The site is outside of the species' known elevation range, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2]. This perennial species, if present, would have been observed during survey.
Chloropyron maritimum ssp. *maritimum*	Salt marsh bird's-beak	FE/SE/MSCP/1B.2	Coastal dunes, Marshes and swamps(coastal salt)/annual herb hemiparasitic/May–October/0–98 feet	Not expected to occur. The site is located outside the species' known elevation range and there is no suitable habitat present.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/None/1B.1	Closed-cone coniferous forest, chaparral, coastal scrub; sandy openings/Annual herb/March–May/10–410 feet	Low potential to occur. Suitable sandy soils are present, the site is located within the species' known elevation range and this species is recorded in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Chorizanthe polygonoides var. *longispina*	Long-spined spineflower	None/None/ None/1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay soils/Annual herb/April–July/98–5,020 feet	Low potential to occur. The site is located within the species' known elevation range and the species is recorded in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks suitable vernal pools and clay soils.
Cistanthe maritima	Seaside cistanthe	None/None/None/4.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy soils/Annual herb/March–June/16–984 feet	Low potential to occur. Suitable sandy soils are present, the site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Clarkia delicata	Delicate clarkia	None/None/None/1B.2	Chaparral, cismontane woodland; often gabbroic soils/Annual herb/April–June/771–3,281 feet	Not expected to occur. The site is outside of the species' known elevation range, gabbroic soils are absent and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Comarostaphylis diversifolia ssp. *diversifolia*	Summer holly	None/None/None/1B.2	Chaparral, cismontane woodland/Evergreen shrub/April–June/98–2,592 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Convolvulus simulans	Small-flowered morning-glory	None/None/None/4.2	Chaparral, coastal scrub, valley and foothill grassland; serpentinite seeps/Annual herb/March–July/ 98–2,297 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinty[2]; however, suitable serpentinite seeps are absent, and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/None/1B.1	Coastal bluff scrub, chaparral, coastal scrub/Perennial herb/June–September/10–377 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	None/None/MSCP/1B.1	Coastal bluff scrub, chaparral (maritime, openings), coastal scrub; sandy soils/Perennial herb/May–September/49–492 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Cylindropuntia californica var. *californica*	snake cholla	None/None/MSCP NE/1B.1	Chaparral, Coastal scrub/perennial stem and succulent/April–May/98–492 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2]. This perennial species, if present, would have been observed during survey.
Deinandra conjugens	Otay tarplant	FT/SE/MSCP NE/1B.1	Coastal scrub, Valley and foothill grassland/clay/annual herb/May–June/82–984 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area, the site lacks suitable clay soils and the species is not known to occur within the vicinity[2].
Deinandra paniculata	Paniculate tarplant	None/None/None/4.2	Coastal scrub, valley and foothill grassland, vernal pools; usually vernally mesic/Annual herb/April–November/82–3,084 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks vernally mesic areas.
Dichondra occidentalis	Western dichondra	None/None/None/4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/Annual herb/March–July/164–1,640 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is a limited patch of coastal scrub present and the species is not known to occur within the vicinity[2].
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/MSCP/2.1	Coastal scrub/annual herb hemiparasitic/(March),April-July(September)/33-1,148 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2].
Dudleya brevifolia	Short-leaved dudleya	None/SE/MSCP NE/1B.1	Chaparral, coastal scrub; Torrey sandstone/Perennial herb/April–May/98–1,148 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2], however, suitable Torrey sandstone is absent and there is only disturbed coastal scrub/chaparral present within the project disturbance area.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Dudleya variegata	Variegated dudleya	None/None/MSCP NE/1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay soils/Perennial herb/April–June/10–1,903 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, clay soils that are absent, and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Dudleya viscida	Sticky dudleya	None/None/MSCP/1B.2	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/Perennial herb/May–June/33–1,804 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/MSCP NE/1B.1	Chaparral, Coastal scrub/mesic/ perennial evergreen shrub/(July),September-November/98-1,969 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks mesic conditions. This perennial species, if present, would have been observed during survey.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/MSCP/1B.1	Coastal scrub, valley and foothill grassland, vernal pools; mesic soils/Annual and perennial herb/April–June/66–2,034 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks mesic conditions.
Erysimum ammophilum	Sand-loving wallsflower	None/None/MSCP/1B.2	Chaparral, coastal dunes, coastal scrub; sandy openings/perennial herb/February–June/0–196 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area, the site is located outside the species' known elevation range and the species is not known to occur within the vicinity[2].
Euphorbia misera	Cliff spurge	None/None/None/2.2	Coastal bluff scrub, coastal scrub, Mojavean desert scrub; rocky/Shrub/December–August/33–1,640 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Ferocactus viridescens	San Diego barrel cactus	None/None/MSCP/2.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/Stem succulent/May–June/10–1,476 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks vernal pools. This perennial species, if present, would have been observed during survey.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Frankenia palmeri	Palmer's frankenia	None/None/None/2.1	Coastal dunes, Marshes and swamps(coastal salt), Playas/perennial herb/May–July/0–33 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, the site lacks suitable habitat. This perennial species, if present, would have been observed during survey.
Fremontodendron mexicanum	Mexican flannelbush	FE/SR/None/1B.1	Closed-cone coniferous forest, Chaparral, Cismontane woodland/gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/33–2,349 feet	Not expected to occur. The site is located within the species' known elevation range; however, lacks suitable habitat and the species is not known to occur in the vicinity[2]. This perennial species, if present, would have been observed during survey.
Geothallus tuberosus	Campbell's liverwort	None/None/None/1B.1	Coastal scrub(mesic), Vernal pools/soil/ephemeral liverwort/N/A/33–1,969 feet	Not expected to occur. The site is located within the species' known elevation range; however, it lacks suitable mesic coastal scrub and vernal pools.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/None/3.1	Chaparral(mesic, disturbed areas)/annual herb/April–June/1,476–2,297 feet	Not expected to occur. The site is outside of the species' known elevation range and lacks suitable mesic chaparral.
Grindelia hallii	San Diego gumplant	None/None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/July–October/607–5,725 feet	Not expected to occur. The site is outside of the species' known elevation range and there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Harpagonella palmeri	Palmer's grapplinghook	None/None/None/4.2	Chaparral, coastal scrub, valley and foothill grassland; clay soils/Annual herb/March–May/66–3,133 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicnity[2]; however, clay soils are absent and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Heterotheca sessiliflora ssp. *sessiliflora*	Beach goldenaster	None/None/None/1B.1	Chaparral, coastal dunes, coastal scrub/Perennial herb/March–December/0–4,019 feet	Not expected to occur. The site is located within the species' known elevation range; however, San Diego County populations of beach goldenaster are almost extirpated and are typically found within beach bluffs. This species is recorded within 0.5-mile of the site (CDFW 2013). This perennial species, if present, would have been observed during survey.
Holocarpha virgata ssp. *elongata*	Graceful tarplant	None/None/None/4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/Annual herb/May–November/197–3,609 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicnity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Isocoma menziesii var. *decumbens*	Decumbent goldenbush	None/None/None/1B.2	Chaparral, coastal scrub; sandy, often disturbed areas/Shrub/April–November/33–443 feet	Not expected to occur. Suitable sandy soils are present, the site is located within the species' known elevation range and this species is recorded within 0.5-mile of the site (CDFW 2013); however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Iva hayesiana	San Diego marsh-elder	None/None/None/2.2	Marshes and swamps, playas/Perennial herb/April–October/33–1,640 feet	Not expected to occur. The site is located within the species' known elevation range; however, it lacks suitable habitat and the species is not known to occur within the vicinity[2]. This perennial species, if present, would have been observed during survey.
Juncus acutus var. *leopoldii*	Southwestern spiny rush	None/None/None/4.2	Coastal dunes (mesic), meadows and seeps (alkaline seeps), coastal saltwater marsh/Rhizomatous herb/May– June/10–2,953 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, it lacks suitable habitat. This perennial species, if present, would have been observed during survey.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/None/1B.1	Marshes and swamps (coastal salt), playas, vernal pools/Annual herb/February–June/3–4,003 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, it lacks suitable habitat.
Lepechinia cardiophylla	Heart-leaved pitcher sage	None/None/MSCP NE/1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland/shrub/April–July/1,706–4,494 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Lepechinia ganderi	Gander's pitcher sage	None/None/MSCP NE/1B.3	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic soils/shrub/June–July/1,000–3,297 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area, there are no suitable soils, and the site is located outside the species' known range. This perennial species, if present, would have been observed during survey.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Lepidium virginicum var. *robinsonii*	Robinson pepper-grass	None/None/None/1B.2	Chaparral, coastal scrub/Annual herb/January–July/3–2,904 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Leptosyne maritima	Sea dahlia	None/None/None/2.2	Coastal bluff scrub, coastal scrub/Perennial herb/March–May/16–492 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Lycium californicum	California box-thorn	None/None/None/4.2	Coastal bluff scrub, coastal scrub/Shrub/March–August/16–492 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Microseris douglasii ssp. *platycarpha*	Small-flowered microseris	None/None/None/4.2	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool; clay soils/Annual herb/March–May/49–3,510 feet	Not expected to occur. The site is located within the species' known elevation range; however, clay soils are absent, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the species is not known to occur within the vicinity[2].
Mimulus aurantiacus var. *aridus*	Low bush monkeyflower	None/None/None/4.3	Chaparral(rocky), Sonoran desert scrub/perennial evergreen shrub/April–July/2,461–3,937 feet	Not expected to occur. The species is known to occur in the vicinity[2]; however, site lacks suitable vegetation and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Monardella hypoleuca ssp. *lanata*	Felt-leaved monardella	None/None/MSCP/1B.2	Chaparral, cismontane woodland/rhizomatous herb/June–August/984–5,167 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is located outside the species' known elevation range.
Monardella viminea	willowy monardella	FE/SE/MSCP NE/1B.1	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland/alluvial ephemeral washes/perennial herb/June–August/164–738 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and site lacks ephemeral washes.
Mucronea californica	California spineflower	None/None/None/4.2	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland/sandy/annual herb/March–July(August)/0–4,593 feet	Low potential to occur. The site is located within the species' known elevation range and there are suitable soils; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2].

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Myosurus minimus ssp. *apus*	Little mousetail	None/None/None/3.1	Valley and foothill grassland, vernal pools/Annual herb/ March–June/66–2,100 feet	Not expected to occur. The site is located within the species' known elevation range; however, it lacks suitable vernal pools and habitat and the species is not known to occur within the vicinity[2].
Nama stenocarpum	Mud nama	None/None/None/2.2	Marshes and swamps; lake margins, riverbanks/Annual and perennial herb/January–July/16–1,640 feet	Not expected to occur. The site is located within the species' known elevation range; however, it lacks suitable habitat and the species is not known to occur within the vicinity[2].
Navarretia fossalis	Spreading navarretia	FT/None/MSCP/ 1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/Annual herb/ April–June/98–2,149 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, it lacks suitable habitat.
Navarretia prostrata	Prostrate vernal pool navarretia	None/None/None/1B.1	Coastal scrub, Meadows and seeps, Valley and foothill grassland(alkaline), Vernal pools/Mesic/annual herb/April–July/49–3,970 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, it lacks suitable mesic conditions and vernal pool and there is only disturbed coastal scrub/chaparral present within the project disturbance area.
Nemacaulis denudata var. *denudata*	Coast woolly-heads	None/None/None/1B.2	Coastal dunes/Annual herb/ April–September/0–328 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is no suitable vegetation present.
Nemacaulis denudata var. *gracilis*	Slender cottonheads	None/None/None/2.2	Coastal dunes, desert dunes, Sonoran desert scrub/Annual herb/April–May/– 164–1,312 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation present and the species is not known to occur within the vicinity[2].
Nolina interrata	Dehesa nolina	None/SE/MSCP NE/1B.1	Chaparral; gabbroic, metavolcanic or serpentinite soils/perennial herb/June–July/606–2,805 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Ophioglossum californicum	California adder's-tongue	None/None/None/4.2	Chaparral, Valley and foothill grassland, Vernal pools(margins)/mesic/perennial rhizomatous herb/(Dec),January–June/ 197–1,722 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicnity[2].
Orcuttia californica	California Orcutt grass	FE/SE/MSCP/1B.1	Vernal pools/Annual herb/ April–August/49–2,165 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there are no vernal pools present.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Orobanche parishii ssp. *brachyloba*	Short-lobed broomrape	None/None/None/4.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy soils/Perennial herb parasitic/April–October/10–1,001 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2].
Packera gander	Gander's ragwort	None/SR/MSCP/1B.2	Chaparral; burns, gabbroic outcrops/perennial herb/April–June/1,312–-3,937 feet	Not expected to occur. There is no suitable habitat present and the site is located outside the species' known elevation range.
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/March–July/262–6,070 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2].
Phacelia ramosissima var. *austrolitoralis*	South coast branching phacelia	None/None/None/3.2	Chaparral, coastal dunes, coastal scrub, marshes and swamps (coastal salt); sandy, sometimes rocky soils/perennial herb/March–August/16–984 feet	Low potential to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur within the vicinity[2].
Phacelia stellaris	Brand's star phacelia	FC/None/None/ 1B.1	Coastal dunes, coastal scrub/Annual herb/March–June/3–1,312 feet	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/MSCP/1B.2	Closed-cone coniferous forest, chaparral; sandstone/Evergreen tree/246–525 feet	Not expected to occur. The site is within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This species would have been detected if present.
Piperia cooperi	Chaparral rein orchid	None/None/None/4.2	Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/March–June/49–5,200 feet	Not expected to occur. The site is located within the species' known elevation range; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the species is not known to occur in the vicinity[2].
Pogogyne abramsii	San Diego mesa mint	FE/SE/MSCP/1B.1	Vernal pools/annual herb/March–July/295–656 feet	Not expected to occur. The site is outside of the species' known elevation range and there are no suitable vernal pools present.
Pogogyne nudiscula	Otay Mesa mint	FE/SE/MSCP/1B.1	Vernal pools/annual herb/May–July/295–820 feet	Not expected to occur. The site is outside of the species' known elevation range and there are no suitable vernal pools present.
Quercus dumosa	Nuttall's scrub oak	None/None/None/1B.1	Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/Evergreen shrub/49–1,312 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and site lacks suitable clay soils. This perennial species, if present, would have been observed during survey.
Rosa minutifolia	Small-leaved rose	None/SE/MSCP/ 2B.1	Chaparral, coastal scrub/deciduous shrub/January–June/492–524 feet	Not expected to occur. There is limited disturbed coastal scrub present and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Salvia munzii	Munz's sage	None/None/None/2.2	Chaparral, Coastal scrub/perennial evergreen shrub/February–April/394–3,494	Not expected to occur. The species is known to occur in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Satureja chandleri	San Miguel savory	None/None/MSCP/1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic or metavolcanic/shrub/March–July/400–3,550 feet	Not expected to occur. The site is located outside the species' known elevation range, the species is not known to occur within the vicinity[2] and there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Selaginella cinerascens	Ashy spike-moss	None/None/None/4.1	Chaparral, coastal scrub/Rhizomatous herb/66–2,100 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Senecio aphanactis	chaparral ragwort	None/None/None/2.2	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline/annual herb/January–April/49–2,625 feet	Low potential to occur. The site is located within the species' known elevation range; however, site lacks suitable alkaline soils and there is only disturbed coastal scrub/chaparral present within the project disturbance area. This species is recorded within 0.5-mile of the site (CDFW 2013).
Sphaerocarpos drewei	bottle liverwort	None/None/None/1B.1	Chaparral, Coastal scrub/openings, soil/ephemoral liverwort/N/A/295–1,969 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is outside of the species' known elevation range.
Solanum xanti	Purple nightshade	None/None/MSCP/None	Shrublands, oak and pine woodland, coniferous forest/perennial herb/February–June/0–8,858 feet	Not expected to occur. The site is located within the species' known elevation range and there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Stemodia durantifolia	Purple stemodia	None/None/None/2.1	Sonoran desert scrub; often mesic, sandy soils/Perennial herb/January–December/ 591–984 feet	Not expected to occur. There are suitable sandy soils present; however, the site is outside of the species' known elevation range and there is no suitable vegetation present. This perennial species, if present, would have been observed during survey.
Stipa diegoensis	San Diego County needle grass	None/None/None/4.2	Chaparral, Coastal scrub/rocky, often mesic/perennial herb/February-June/33–2,625 feet	Not expected to occur. The site is located within the species' known elevation range and the species is known to occur within the vicniity[2]; however, it lacks suitable mesic conditions and there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Streptanthus bernardinus	Laguna Mountains jewel-flower	None/None/None/4.3	Chaparral, Lower montane coniferous forest/perennial herb/May–August/2,198–8,202	Not expected to occur. The site is outside of the species' known elevation range and there is only disturbed coastal scrub/chaparral present within the project disturbance area.

Scientific Name	Common Name	Status: Federal/State/ MSCP/CRPR[1]	Habitat Requirements/ Life Form/Blooming Period/ Elevation Range	Status on Site or Potential to Occur
Stylocline citroleum	Oil neststraw	None/None/None/1B.1	Chenopod scrub, Coastal scrub, Valley and foothill grassland/clay/annual herb/March–April/164–1,312	Low potential to occur. The site is located within the species' known elevation range and the species is known to occur in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area and the site lacks suitable clay soils. This species is recorded within 0.5-mile of the site (CDFW 2013).
Suaeda esteroa	Estuary seablite	None/None/None/1B.2	Marshes and swamps (coastal salt)/Perennial herb/May–October/0–16 feet	Not expected to occur. The species is recorded in the vicinity[2]; however, there is no suitable habitat present and the site is located outside the species' known elevation range. This perennial species, if present, would have been observed during survey.
Suaeda taxifolia	Woolly seablite	None/None/None/4.2	Coastal bluff scrub, Coastal dunes, Marshes and swamps(margins of coastal salt)/perennial evergreen shrub/January–December/0–164 feet	Not expected to occur. The site is located outside the species' known elevation range, the site lacks suitable habitat and species is not known to occur in the vicinity[2]. This perennial species, if present, would have been observed during survey.
Tetracoccus dioicus	Parry's tetracoccus	None/None/MSCP/1B.2	Chaparral, coastal sage scrub/Deciduous shrub/ April–May/541–3,281 feet	Not expected to occur. There is only disturbed coastal scrub/chaparral present within the project disturbance area and the site is outside of the species' known elevation range. This perennial species, if present, would have been observed during survey.
Viguiera laciniata	San Diego County viguiera	None/None/None/4.2	Chaparral, Coastal scrub/perennial shrub/February–June(August)/197–2,461 feet	Not expected to occur. The site is within the species' known elevation range and the species is recorded in the vicinity[2]; however, there is only disturbed coastal scrub/chaparral present within the project disturbance area. This perennial species, if present, would have been observed during survey.
Xanthisma junceum	Rush-like bristleweed	None/None/None/4.3	Chaparral, Coastal scrub/perennial herb/June–January/787–3,281 feet	Not expected to occur. The site is outside of the species' known elevation range, there is only disturbed coastal scrub/chaparral present within the project disturbance area, and the species is not known to occur within the vicinity[2]. This perennial species, if present, would have been observed during survey.

[1] Regulatory Status (CDFW 2013b; CNPS 2013).
[2] "Vicinity" refers to species recorded in the USGS 7.5-minute La Jolla quadrangle (CDFW 2013).

Federal Designations:
FE: Species listed as endangered by USFWS
FT: Species listed as threatened by USFWS

State Designations:
ST: State threatened
SE: State endangered
San Diego Multiple Species Conservation Program:
MSCP MSCP species
MSCP NE Narrow Endemic Species
CRPR:
California Rare Plant Rank (CRPR)
1A: Plants presumed extinct in California
1B: Plants rare, threatened, or endangered in California and elsewhere
2: Plants rare, threatened, or endangered in California, but more common elsewhere
3: Plants about which we need more information–a review list
4: Plants of limited distribution–a watch list
Threat Ranks:
0.1: Seriously threatened in California (high degree/immediacy of threat)
0.2: Fairly threatened in California (moderate degree/immediacy of threat)
0.3: Not very threatened in California (low degree/immediacy of threats or no current threats known)

APPENDIX D

Special-Status Wildlife Species Potentially Occurring within the Project Study Area

Appendix D
Special-Status Wildlife Species Potentially Occurring within the Project Study Area

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Amphibians				
Spea [=*Scaphiopus*] *hammondi*	Western spadefoot	None/SSC/None/None	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitats	Not expected to occur. There is no suitable slow-moving water or ponded areas and with adjacent upland habitat on site. This species was recorded within the vicinity.
Reptiles				
Aspidoscelis hyperythra	Orange-throated whiptail	None/SSC/MSCP/None	Coastal sage scrub, chaparral, grassland, juniper, and oak woodland	Low potential to occur. The coastal sage scrub is very limited and disturbed on site and the site lacks juniper and oak woodlands. This species is recorded in the vicinity, but this location experiences significant human activity.
Aspidoscelis tigris stejnegeri	Coastal western whiptail	None/None/None/None	Coastal sage scrub, chaparral	Low potential to occur. The coastal sage scrub is very limited and disturbed on site. This species was recorded within the region, but this location experiences significant human activity.
Charina [=*Lichanura*] *trivirgata*	Rosy boa	None/None/None/None	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub	Not expected to occur. The coastal sage scrub is very limited and disturbed on site and there is no rocky chaparral on site. This species was recorded within the vicinity, but this location experiences significant human activity.
Crotalus ruber	Red-diamond rattlesnake	None/SSC/None/None	Variety of shrub habitats where there is heavy brush, large rocks, or boulders	Not expected to occur. No rocky habitats occur on site. This species is recorded in the vicinity, but site is too close to urban development and effectively isolated.
Diadophis punctatus similis	San Diego ringneck snake	None/None/None/None	Open, rocky areas in moist habitats near intermittent streams: marsh, riparian woodland, sage scrub	Low potential to occur. There are no suitable rocky, and marginally moist habitats on site. This species was recorded within the region, but site is very close to urban development and effectively isolated.
Phrynosoma blainvillii	Blainville's (coast) horned lizard	None/SSC/MSCP/None	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest	Not expected to occur. The coastal sage scrub is very limited and disturbed on site. This species is recorded in the vicinity, but site is too close to urban development and effectively isolated.
Plestiodon skiltonianus interparietalis	Coronado skink	None/SSC/None/None	Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones	Low potential to occur. There is marginally suitable leaf litter, and this site lacks rocks and other habitat requirements. This species was recorded within the region.

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Salvadora hexalepis virgultea	Coast patch-nosed snake	None/SSC/None/None	Chaparral, washes, sandy flats, rocky areas	Not expected. No suitable vegetation or habitat features present. This species is recorded in the region, but site is too close to urban development and effectively isolated.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/MSCP/None	Riparian and oak woodlands, montane canyons	Moderate potential to nest on site. No riparian or oak woodlands are present, but there is potential for nesting on site within the Eucalyptus. This species is recorded in the region.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/MSCP/None	Grass-MSCP hillsides, coastal sage scrub, chaparral with boulders and outcrops	Low potential to occur. The coastal sage scrub is very limited and disturbed on site. This species is recorded in the vicinity.
Aquila chrysaetos (nesting and nonbreeding/wintering)	Golden eagle	BCC/FP, WL/MSCP NE/None	Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest	Not expected to nest or forage on site. There is no suitable open habitat as the site is located in a highly urbanized area. This species was not recorded in the vicinity or region.
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/None/None	Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys	Not expected to occur. There is limited coastal sage scrub habitat and the project is in a highly urbanized environment. This species was recorded within the region.
Athene cunicularia (burrow sites and some wintering sites)	Burrowing owl	BCC/SSC/MSCP NE/None	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas	Not expected to occur. Few suitable open areas on site, and site generally includes too much topography. This species was recorded within the vicinity.
Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)	Coastal cactus wren	BCC/SSC/MSCP NE/None	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub	Not expected to occur. Only ornamental cactus present onsite; no suitable cactus or succulent scrub habitat. This species is recorded in the vicinity.
Circus cyaneus hudsonius (nesting)	Northern harrier	None/SSC/MSCP/None	Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub	Not expected to nest on site. There are no suitable wetlands suitable for nesting on site. This species was not recorded within the vicinity or region.

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Elanus leucurus (nesting)	White-tailed kite	None/P/None/None	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian	Low potential to nest on site. Nesting opportunities are present within the Eucalyptus trees on site, although this species prefers woodlands or oak groves. Suitable foraging habitat is limited due to the isolated context of the site. This species is recorded in the region.
Eremophila alpestris actia	California horned lark	None/WL/None/None	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields	Not expected to occur. There is no suitable grassland and limited open habitat on site. This species is recorded in the region.
Falco mexicanus (nesting)	Prairie falcon	None/WL/None/None	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Low potential to nest onsite. Limited foraging habitat and no cliffs for nesting. This species is recorded in the region.
Falco peregrinus anatum (nesting)	American peregrine falcon	BCC, (FD)/(SD), P/ MSCP NE/None	Nests on cliffs, buildings, bridges. Forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present.	Not expected to nest onsite. No suitable foraging habitat and no cliffs for nesting. This species is recorded in the region.
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC/MSCP/None	Coastal sage scrub, coastal sage scrub–chaparral mix, coastal sage scrub–grassland ecotone, riparian in late summer	Low potential to occur. The coastal sage scrub on site is limited in size, disturbed, and is bound by residential homes to the north, east, and south and California State Route 163 to the west. This species is recorded in the vicinity.
Sialia mexicana	Western bluebird	None/None/MSCP/None	Open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland	Moderate potential to occur. This species has been expanding into coastal San Diego neighborhoods in recent years and may potentially forage or nest onsite. The species was not recorded within the vicinity or region.
Mammals				
Antrozous pallidus	Pallid bat	None/SSC/None/WBWG:H	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging	Low potential to forage in the project area. No suitable rocky outcrops, cliffs, and crevices for roosting. This species is recorded in the region.
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None/None	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas	Low potential to occur. Limited coastal sage scrub habitat and there is no suitable riparian-scrub and chaparral onsite. This species is recorded in the region.

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	None/SSC/None/None	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams, and sandy loams	Not expected to occur due to limited coastal sage scrub or rocky substrates on site. This species is recorded in the region.
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/None/WBWG:H	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland. Roosts in caves, mines, and buildings.	Not expected to occur. No suitable vegetation or roosting structures/microhabitat. This species is typically found south of the project area and into Mexico. This species is recorded in the vicinity.
Euderma maculatum	Spotted bat	None/SSC/None/WBWG:H	Arid deserts and grasslands through mixed conifer forests; roosts in cliffs, feeds over water and along washes.	Low potential to forage in the project area. This species is typically found in arid environments. This species was recorded within the vicinity.
Eumops perotis californicus	Western mastiff bat	None/SSC/None/WBWG:H	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures.	Low potential to forage in the project area. The project site is highly urbanized but could find suitable roosting structures/microhabitat. This species was recorded within the vicinity.
Lasionycteris noctivagans	Silver-haired bat	None/None/None/WBWG:M	Coastal & montane forest, roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks.	Moderate potential to forage and roost on site. Potential roosting within Eucalyptus trees present This species was recorded within the vicinity.
Lasiurus blossevillii	Western red bat	None/SSC/None/WBWG: H	Marsh swamp and wetland areas	Not expected to occur. There is no suitable marsh wetland habitat on site. This species was recorded within the region.
Lasiurus cinereus	Hoary bat	None/SSC/None/WBWG:M	Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding.	Low potential to forage in the project area due to highly urbanized environment; however, may utilize trees onsite for cover. No suitable roosting structures/microhabitat. This species was recorded within the region.
Lasiurus xanthinus	Western yellow bat	None/SSC/None/WBWG:H	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland.	Low potential to occur. This species is typically found in more arid habitats. No suitable desert or pinyon–juniper vegetation is present. This species is recorded in the region.

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/None/None	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands	Low potential to occur. Limited suitable open habitats on site and the site is bounded by residential homes and SR 163. This species is recorded in the region. Should have detected if present.
Myotis yumanensis	Yuma myotis	None/ None/None/WBWG:LM	Closely tied to open water which is used for foraging; open forests and woodlands are optimal habitat	Low potential to occur. The site lacks open water and limited suitable woodlands. This species was recorded within the vicinity.
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None/None	Coastal sage scrub, chaparral, pinyon–juniper woodland with rock outcrops, cactus thickets, dense undergrowth	Not expected to occur. No suitable desert habitats with dense undergrowth present. This species was recorded in the region. Should have detected middens if present.
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/SSC/None/WBWG:M	Rocky desert areas with high cliffs or rock outcrops	Low potential to occur. This species is typically found in more arid habitats. No suitable rocky desert habitat. This species was recorded within the vicinity.
Nyctinomops macrotis	Big free-tailed bat	None/SSC/None/WBWG:MH	Rugged, rocky canyons	Not expected to occur. There are no rugged rocky canyons on site. This species was recorded within the vicinity.
Odocoileus hemionus	Mule deer	None/Regulated/MSCP/None	Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover	Low potential to occur. Species is becoming more frequently observed in urbanized settings but likelihood of occupying the site is low due to low mobility through corridors (e.g., SR 163).
Puma concolor	Mountain lion	None/Regulated/MSCP/None	Coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover.	Not expected to occur. The site is isolated in a highly urbanized area bounded by residential homes and SR 163.
Taxidea taxus	American badger	None/SSC/MSCP/None	Dry, open treeless areas, grasslands, coastal sage scrub	Not expected to occur. There is no suitable habitat for this species in the project area. This species was recorded within the vicinity.

Scientific Name	Common Name	Status: Federal/State/ MSCP/Other	Primary Habitat Associations	Status on Site or Potential to Occur*
Invertebrates				
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/MSCP NE/None	Small, shallow vernal pools, occasionally ditches and road ruts	Not expected to occur. No vernal pools occur on site. This species is recorded in the vicinity.
Danaus plexippus (wintering sites)	Monarch butterfly	None/ None/None/None	Overwinters in eucalyptus groves	Low potential to be used as an overwintering site. Eucalyptus groves occur on site, however they are limited is size and are not known to be overwintering sites. This species is recorded in the vicinity and is expected to occur occasionally.
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/MSCP NE/None	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant *Plantago erecta* and nectar plants must be present	Not expected to occur. There is no suitable habitat for this species and no host plant on site. This species was recorded within the region. Site is outside of focused survey area and outside of current range.
Lycaena hermes	Hermes copper butterfly	None/None/None/None	Coastal sage scrub, southern mixed chaparral supporting at least 5% cover of host plant *Rhamnus crocea*	Not expected to occur. Requisite host plants not present. There is limited coastal sage scrub vegetation present and site lacks chaparral. This species was recorded within the region.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/MSCP NE/None	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids	Low potential to occur. No vernal pools occur on site. This species is recorded in the region.

The federal and state status of species is based on the Special Animals List (January 2011) (CDFG 2011).

* "Vicinity" refers to species recorded in the USGS 7.5-minute La Jolla quadrangle (CDFW 2013). "Region" refers to species recorded within the six quadrangles surrounding USGS 7.5-minute La Jolla quadrangle (CDFW 2013).

Federal Designations:

BCC Fish and Wildlife Service: Birds of Conservation Concern
(FD) Federally delisted; monitored for 5 years.
FE Federally listed as Endangered.
FT Federally listed as Threatened.

State Designations (August 2012):

SSC California Species of Special Concern
P California Department of Fish and Game Protected and Fully Protected Species
(SD) State-delisted.
WL California Department of Fish and Game Watch List

San Diego Multiple Species Conservation Program:
MSCP Covered species
MSCP NE Narrow Endemic Species

Other:
WBWG Western Bat Working Group
L: Species is stable globally but there may be localized conservation concerns.
M: Species warrants closer evaluation, research, and conservation actions
H: Species are imperiled or are at high risk of imperilment