FINAL

Biological Resources Technical Report for the Hidden Canyon Project, San Diego County, California PDS2016-LDGRMJ-30097

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JANUARY 2020

Printed on 30% post-consumer recycled material.

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ACRONYMS AND ABBREVIATIONS

ACOE	U.S. Army Corps of Engineers
amsl	above mean sea level
APN	Assessor's Parcel Number
BMP	Best Management Practice
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
dBA	A-weighted decibel(s)
GIS	geographic information system
HLP	habitat loss permit
L_{eq}	equivalent continuous sound level
M	Mitigation Measure
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Plan
NCMSCP	North County Multiple Species Conservation Program
OHWM	ordinary high water mark
PAMA	pre-approved mitigation area
RPO	Resource Protection Ordinance
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
USFWS	U.S. Fish and Wildlife Service

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SUMMARY

This biological resources letter report was prepared to evaluate the proposed Hidden Canyon Project (proposed project). The project area occupies 24.88 acres in the Rancho Santa Fe community in northern San Diego County, California. The project area is within the draft North County Multiple Species Conservation Program (MSCP) Plan Area and future pre-approved mitigation area.

The proposed project is a development of three residential development pads, associated driveways, and an access road. Access to the site would be provided by Rancho Summit Drive.

Vegetation mapping was conducted by Dudek was conducted in 2005 and updated in 2016. Dudek conducted a jurisdictional assessment in 2016 and 2018. In 2018, Dudek conducted focused surveys for the special-status coastal California gnatcatcher (*Polioptila californica californica*). Focused rare plant surveys were conducted in spring and summer 2019. This report documents the results of Dudek's fieldwork as well as an analysis of the impacts related to the proposed project.

Based on species composition and general physiognomy, three plant communities (including non-native) were identified on the approximately 24-acre project area. These plant communities can be generalized to include scrub and chaparral (24.32 acres) and disturbed habitat (0.56 acres).

Based on the jurisdictional assessment, there is one potentially jurisdictional 1-foot-wide to 3-foot-wide ephemeral stream channel within the project area. The approximately <0.01-acre (413-linear-foot) ephemeral stream channel would be considered a non-wetland water or streambed potentially under U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdiction.

Three special-status plant species was observed during focused rare plant surveys: wart-stemmed ceanothus (*Ceanothus verrucosus*), golden-rayed pentachaeta (*Pentachaeta aurea* ssp. *aurea*), and ashy spike-moss (*Selaginella cinerascens*). Focused wildlife surveys in 2018 resulted in the detection of six special-status wildlife species: Cooper's hawk (*Accipiter cooperii*), S outhern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), northern harrier (*Circus hudsonius*), red-shouldered hawk (*Buteo lineatus*), coastal California gnatcatcher, and mule deer (*Odocoileus hemionus*).

The proposed project would result in permanent direct impacts to 10.40 acres, including 10.12 acres of impacts to native vegetation. Potential significant impacts include direct and indirect effects to special-status vegetation communities, special-status plants, special-status wildlife species, and wildlife movement. Mitigation to reduce this impact to a level that is less than significant includes on-site preservation of 13.33 acres (including 1.48 acres of mafic southern mixed chaparral and 11.85 acres of Diegan coastal sage scrub) included in the conservation easement and long-term management by the Escondido Creek Conservancy (TECC), biological monitoring, and best management practices (BMPs).

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1 INTRODUCTION

The purpose of this biological resources letter report prepared for the Hidden Canyon Project (proposed project) is to (1) describe the existing conditions of biological resources within the project area, including vegetation communities, jurisdictional resources, potential for special-status plants and wildlife, and wildlife movement; (2) discuss potential impacts to biological resources that would result from development of the property and describe those impacts in terms of biological significance in view of federal, state, and local laws and policies; and (3) recommend mitigation measures for potential impacts to sensitive biological resources, if necessary. Recommendations will follow federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA); the County of San Diego (County) Guidelines for Determining Significance and Report Format and Contents Requirements (County of San Diego 2010); the County Resource Protection Ordinance (County of San Diego 2012); and other planning documents, including the County's draft North County MSCP Plan (County of San Diego 2009) and the San Dieguito Community Plan (County of San Diego 2014a).

1.1 Project Description

The proposed project includes the development of three residential development pads, associated driveways, and an access road. Each of the three Assessor's Parcel Numbers (APNs) will contain one residential pad, while the access road will cross all three parcels and connect the residential development pad to Rancho Summit Drive. The proposed project would include a fire fuel modification zone and there would be no off-site impacts.

1.2 Project Location

The project area, which includes the extent of all three parcels, is approximately 24.88 acres, and is located within northern San Diego County in the northeast corner of the of the former Perkins property, which is now known as the Copper Creek Preserve. The project area is situated east of the City of Encinitas, south of the City of San Marcos, and north of the community of Rancho Santa Fe just east of Rancho Santa Fe Road off Rancho Summit Drive (see Figure 1, Project Location). The approximate center of the project is 33°4′44.835″ north latitude, 117°12′8.008″ west longitude on the U.S. Geological Survey 7.5-minute series topographic Rancho Santa Fe quadrangle map Section 04, 05, and 33, Range 3 West, Township 12 South and 13 South. The proposed project boundary is consistent with the limits of APNs 223-081-50, 223-081-48, and 223-081-49.

1.3 Project Setting

In 1999, HELIX prepared an existing conditions report for the entire 270-acre Perkins Property, which included vegetation mapping, general wildlife surveys, rare plant surveys and Encinitas baccharis (*Baccharis vanessae*) focused rare plant surveys (see Table 1) (HELIX 1999). Dudek

updated the vegetation mapping for the entire Perkins Property in 2005. On June 1, 2016, Dudek conducted a general biological reconnaissance survey within the three APNs (223-081-50, 223-081-48, and 223-081-49) amounting to the 24.88 acres that compose the Hidden Canyon Project (Table 1). Updated focused surveys for coastal California gnatcatcher were conducted by Dudek in 2018 and are also included in Appendix A, 2018 Coastal California Gnatcatcher Survey Report. Updated rare plant surveys were conducted in spring and summer 2019.

A summary of surveys that have been conducted in the project area is provided in Table 1. Surveys were conducted on foot and in accordance with focused survey guidelines or protocols where applicable.

Table 1
Schedule of Surveys

Date	Hours	Company	Personnel	Focus	Conditions
05/18/1999	1200–1600	HELIX	FS, LS	Vegetation mapping, rare plant survey, zoological survey	65°F–75°F, 0% cc
05/21/1999	1345–1710	HELIX	FS	Vegetation mapping, rare plant survey, zoological survey	60°F–68°F, 25%–100% cc
10/18/1999	NR	HELIX	LS, ST	Encinitas baccharis (*Baccharis vanessae*) focused survey	NR
10/21/1999	NR	HELIX	LS, ST	Encinitas baccharis (*Baccharis vanessae*) focused survey	NR
11/12/2005	NR	Dudek	VP, AH	General field reconnaissance	NR
06/01/2016	1030–1130	Dudek	PS, JW	Vegetation mapping, general field reconnaissance, jurisdictional assessment	64°F–64°F, 100% cc, 0–2 mph winds
07/23/2018	0720–1030	Dudek	PL	Coastal California gnatcatcher	71°F–84°F, 0% cc,0–5 mph winds
08/01/2018	0600–0920	Dudek	PL	Coastal California gnatcatcher	70°F–82°F, 0%–10% cc, 0–3 mph winds
08/08/2018	0700–0940	Dudek	PL	Coastal California gnatcatcher	70°F–75°F, 0%–30% cc, 1–6 mph winds
08/28/2018	0900–1100	Dudek	CF	Jurisdictional assessment	86°F, 0% cc, 0–1 mph winds
04/08/2019	0719–1544	Dudek	KD	Focused rare plant survey	56°F–83°F, 30%–40% cc, 2–3 mph winds
08/20/2019	0736–1256	Dudek	KD	Focused rare plant survey	64°F–81°F, 0%–100% cc, 2–9 mph winds

Personnel: FS = Fred Sproul; LS = Larry Sward; ST = Sally Trnka; VP = Vipul Joshi; AH = Anita Hayworth; PS = Patricia Schuyler; JW = Janice Wondolleck; PL = Paul Lemons; CF = Callie Ford; KD = Katie Dayton.
Notes: cc = cloud cover; NR = not recorded; mph = miles per hour.

Special-status plant and wildlife species present or potentially present within the proposed project footprint were identified through an extensive literature search using the following sources: U.S. Fish and Wildlife Service (USFWS) Critical Habitat and Occurrence Data (USFWS 2018a), CDFW's

California Natural Diversity Database (CDFW 2018a), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants (CNPS 2018), the San Diego Plant Atlas (SDNHM 2018), the San Diego Mammal Atlas (SDNHM 2017), the San Diego Bird Atlas (Unitt 2004), the U.S. Geological Survey National Hydrography Dataset (USGS 2018), the USFWS National Wetlands Inventory (USFWS 2018b), and the U.S. Department of Agriculture Web Soil Survey (USDA 2017). The literature review also included review of the list of plant and wildlife species proposed for coverage under the draft North County MSCP Plan (County of San Diego 2014b) and species considered sensitive by the County of San Diego (County of San Diego 2010). The Soil Survey, San Diego Area, California Part 1 (Bowman 1973) also was reviewed to identify potentially occurring special-status plants based on known soil associations. Native plant community classifications used in this report follow Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008).

The Hidden Canyon project area is located within the boundaries of the draft North County MSCP Plan and the San Dieguito Community Planning Area. These documents were reviewed to ensure that the proposed project is consistent with relevant conservation goals and policies. Since the project area is located within the County of San Diego, the County Resource Protection Ordinance (RPO; County of San Diego 2012), Significance Guidelines and Format and Content Requirements (County of San Diego 2010), and the Planning Agreement between the County and the Agencies (County of San Diego 2014b) are applicable to the proposed project.

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2 REGIONAL CONTEXT

2.1 Draft North County MSCP Subarea Plan

The County is currently working on a draft North County MSCP (NCMSCP) for the northern part of the unincorporated area that extends from the area around the incorporated cities of Oceanside, Encinitas, San Marcos, Vista, and Escondido, east to Cleveland National Forest and north to Riverside County. The draft NCMSCP encompasses approximately 489 square miles, including Bonsall, De Luz, Fallbrook, Harmony Grove, Lilac, Pala, Pauma Valley, Rainbow, Ramona, Rincon Springs, Twin Oaks Valley, and Valley Center. The draft NCMSCP is being prepared as a multiple species habitat conservation plan as well as a Natural Community Conservation Plan (NCCP). The draft NCMSCP's goals are to develop a preserve system that designates certain areas as draft future pre-approved mitigation areas (PAMAs), provide a regulatory process that allows for efficient permitting of developments and other projects, and to maintain the scenic beauty and diversity of natural and cultural resources for the community. The draft NCMSCP would provide coverage for 62 species, including 28 plant and 34 wildlife species (County of San Diego 2014b).

The entire project area is located within draft NCMSCP PAMA-designated lands (see Figure 2, Regional Context). As described in the draft NCMSCP, "[t]he PAMA represents areas that the County and the Wildlife Agencies recognize as important to preserve in order to meet the Plan's conservation goals." The PAMA area has been "pre-approved for mitigation because [it] had (1) high composite habitat value, (2) critical core and linkages, or (3) helped meet the conservation goals." An area designated as a PAMA contains high biological value in which conservation will be encouraged. Development in an area designated as a PAMA is possible; however, mitigation may be required.

Until the NCMSCP is approved, the Planning Agreement between the County and the Agencies (County of San Diego 2014b) remains in place and applies to the proposed project. The Planning Agreement outlines Preliminary Conservation Objectives for the NCMSCP (County of San Diego 2014b). In addition to the preliminary conservation objectives, the Planning Agreement for the draft NCMSCP Plan identifies an interim project review process, including a set of preserve design principles that interim projects would be evaluated against during the period when the NCMSCP Plan is in preparation.

In order for the proposed project to obtain approval for the loss of coastal sage scrub and any associated incidental take of coastal California gnatcatcher through the County's Section 4(d) habitat loss permit (HLP) process, the proposed project must demonstrate conformance with overall programmatic goals and policies established for the San Diego County NCCP subregion and make the specific findings applicable to issuance an HLP. The proposed project may also obtain take authorization through Section 7 consultation with USFWS.

2.2 County Resource Protection Ordinance

The RPO, which is administered by the County, regulates biological and other natural resources within the County. These resources include wetlands, wetland buffers, floodways, floodplain fringe, steep slope lands, sensitive habitat lands, and lands containing significant prehistoric or historic sites. Generally, the ordinance stipulates that no impacts may occur to wetlands except for aquaculture, scientific research, removal of diseased or invasive exotic plant species, wetland creation and habitat restoration, revegetation and management projects, and crossings of wetlands for roads, driveways, or trails/pathways when certain conditions are met. The same exemptions apply to impacts to wetland buffer areas and improvements necessary to protect adjacent wetlands. Sensitive habitat lands are unique vegetation communities, or the habitats of rare or endangered species as defined by CEQA, including the area which is necessary to support a viable population of rare and endangered species in perpetuity, or lands essential to the healthy functioning of a balanced natural ecosystem, or lands functioning as wildlife corridors. Impacts to sensitive habitat lands are permitted when impacts have been reduced as much as possible and mitigation provides at least an equal benefit to the affected species (County of San Diego 2012).

2.3 Local

The project area is located within the County of San Diego's San Dieguito Community Planning Area and has been designated as semi-rural residential.

The project area is located within the Escondido Creek hydrologic area of the Carlsbad watershed, within the Escondido hydrologic subarea (RWQCB 1994).

3 SURVEY LIMITATIONS

Direct observations of special-status plants and wildlife species were recorded during vegetation mapping, jurisdictional assessments, rare plant surveys, focused wildlife surveys, and habitat assessments. In addition to direct observations of wildlife species, signs such as tracks and scat were also recorded. Special-status species observed during these surveys were recorded and/or mapped.

Focused wildlife surveys for coastal California gnatcatcher were conducted per the appropriate protocols, which resulted in wildlife surveys being conducted during the day. Birds represent the largest component of the vertebrate fauna. Since birds are active in the day, diurnal surveys maximized the number of observations of this portion of the fauna. Daytime surveys, however, may result in fewer observations of animals that are more active at night, such as mammals, including bats. Similarly, many species of reptiles and amphibians are nocturnal or cryptic in their habits and may be difficult to observe using standard meandering transects.

To account for survey limitations, special-status wildlife species that could occur, based on pertinent distribution and habitat preference literature and recorded off-site observations, were analyzed based on their potential to occur (Appendices B and C), and adequate measures to avoid and minimize impacts to these species are provided in this report.

With specific regard to small mammal trapping, there is no indication that such an effort may be necessary. There are two federally listed endangered mammal species that occur within the region, Pacific pocket mouse (*Perognathus longimembris pacificus*) and Stephens' kangaroo rat (*Dipodomys stephensi*). Both of these species only have low potential to occur within the project area due to lack of suitable habitat. The project area is located outside of the USFWS Recommended Quino Survey Area (USFWS 2014); therefore, focused surveys for this federally endangered species were not conducted.

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4 HABITATS/VEGETATION COMMUNITIES

Dudek conducted a general biological reconnaissance survey of the 24.88-acre project area to create a baseline biological resources map with updated vegetation mapping. Vegetation communities and land uses were mapped in the field directly onto a 100-foot-scale (1 inch = 100 feet) aerial-photograph-based field map of the project area. Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS and a geographic information system (GIS) coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present on site was determined. Vegetation communities were mapped per the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), in accordance with the County's Guidelines for Determining Significance and Report Format and Content (County of San Diego 2010).

The majority of the site burned in the 1996 Elfin Forest fire (HELIX 1999); however, the site appears to have completely recovered from this fire. A total of three vegetation communities/ land cover types were identified within the project boundary, including Diegan coastal sage scrub, mafic southern mixed chaparral, and disturbed habitat. 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 Figure 3, Biological Resources.

Table 2
Vegetation Communities and Land Cover Types within the Project Area

Vegetation Community or Land Cover Type	Code[a]	Acres
Diegan coastal sage scrub[b]	32500	21.43
Mafic southern mixed chaparral[b]	37122	2.89
Disturbed habitat	11300	0.56
	Total	**24.88**

Notes:
[a] Holland (1986) as modified by Oberbauer et al. (2008).
[b] Considered special status by the County of San Diego (2010).

Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub is the widespread coastal sage scrub in coastal Southern California from Los Angeles into Baja California (Oberbauer et al. 2008). Diegan coastal sage scrub is a native plant community composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species. Diegan coastal sage scrub is characterized by subshrubs with relatively shallow root systems and open canopies. On site, the Diegan coastal sage scrub is composed primarily of four shrub species: black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*). Approximately 21.43 acres of Diegan coastal sage scrub occurs on

site. This vegetation community requires mitigation per the County Report Format and Content Requirements for Biological Resources (County of San Diego 2010).

Mafic Southern Mixed Chaparral (37122)

Mafic southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that grow to about 6 to 10 feet tall and form dense often nearly impenetrable stands. The plants of this association are typically deep rooted. This habitat occurs on dry, rocky, often steep north-facing slopes with little soil. As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by such representative species as chamise (*Adenostoma fasciculatum*) and mission manzanita (*Xylococcus bicolor*). Mafic southern mixed chaparral occurs on mafic or metavolcanic soils. The chaparral on site was dominated by wart-stemmed ceanothus (CRPR 2B.2 and County List B),[1] laurel sumac, and California buckwheat. Approximately 2.89 acres of mafic southern mixed chaparral occur on site. This vegetation community requires mitigation per the County Report Format and Content Requirements for Biological Resources (County of San Diego 2010).

Disturbed Habitat (11300)

Disturbed habitats are areas that have been physically disturbed and no longer recognizable as native or naturalized vegetation association (Oberbauer et al. 2008). These areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species. Examples of these areas may include graded landscapes or areas, graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, areas repeatedly cleared for fuel management, or repeatedly used areas that prevent revegetation (e.g., parking lots, trails that have persisted for years). The disturbed habitat mapped within the project area consists of an existing dirt trail/road. Approximately 0.56 acres of disturbed habitat occur on site.

Disturbed habitat is not considered special status by CDFW (2018b), and no mitigation is required per the County of San Diego (2010).

Diversity

A total of 133 vascular plant species, consisting of 97 native species (73%) and 36 non-native species (27%), were recorded within the project area during the 2019 rare plant surveys. Of the total number of plant species observed, three species that are considered special status according

[1] California Rare Plant Rank (CRPR; formally CNPS list) as listed in California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2018). Plants categorized as County List B are rare, threatened, or endangered in California, but more common elsewhere (County of San Diego 2010).

to the County guidelines occur on site and are discussed in further detail in Section 5.1, Special-Status Plants. Appendix D includes a cumulative list of plant species observed within the Hidden Canyon project area.

The project area supports habitat for common upland wildlife species. Chaparral and coastal scrub habitats within the project area provide foraging and nesting habitat for migratory and resident birds and other wildlife species. There were 49 species observed in the project area during the 2005 and 2018 focused surveys. Of the total species observed, 47 native species (96%) and 2 non-native species (4%) were recorded, 6 of which are considered special status according to the County guidelines and are discussed further in Section 5.2, Special-Status Wildlife Species. Appendix E includes a full list of wildlife species observed, including special-status species observed within the Hidden Canyon project area and surrounding Perkins property area. Wildlife species observed during 2005 surveys of the entire Perkins property were likely located outside the proposed project boundary but are expected to use the habitat within the current Hidden Canyon project area. Species observed in 2005 but occurring outside the project area are included in the compendium and the potential to occur tables because they may occur within the project area. Expected wildlife use of the project area was determined based on known habitat preferences of local species and knowledge of their relative distributions in the area, as well as current and previous surveys conducted for the project area.

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5 SPECIAL-STATUS SPECIES

Special-status, or sensitive, biological resources are those defined by the County or other regulatory agency as (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 sensitive; (3) habitat areas or plant communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; or (4) wildlife corridors and habitat linkages.

HELIX and Dudek biologists and/or other qualified biologists conducted focused surveys for the following sensitive biological resources: special-status plant species, focused surveys for Encinitas baccharis and focused protocol surveys for coastal California gnatcatcher.

5.1 Special-Status Plants

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of California Endangered Species Act and federal Endangered Species Act (CDFW 2018a), (2) plant species with a CRPR 1 through 4 (CDFW 2018c; CNPS 2018), and (3) plant species considered "sensitive" by the County of San Diego (Table 2 in County of San Diego 2010).

Rare plant surveys were conducted by HELIX on May 18 and 21, 1999, in the project area, as well as areas outside the project area, to determine the presence or absence of special-status plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 (14 CCR 15000 et seq.). Focused rare plant surveys for Encinitas baccharis were conducted on October 18 and 21, 1999. Focused surveys for special-status plants within the project area were conducted in spring and summer 2019. Special-status plant species directly observed during the updated focused surveys or with a potential to occur in the project area are discussed in Appendix F, Special-Status Plant Species Detected or with Moderate Potential to Occur within the Project Area, which describes their known occurrences or potential to occur within the project area based on their general biology (primary habitat associations, life form, blooming period, and known elevation range).

Encinitas baccharis is a federally threatened and state endangered perennial deciduous shrub. Focused surveys for this species were conducted in October 1999 by HELIX biologists Larry Sward and Sally Trnka for the entire Perkins Property, which includes the Hidden Canyon project area (see Table 1). HELIX noted that this species is most discernible when flowering (from September to November), although it is unknown whether reference sites were visited to determine bloom status at this time (HELIX 1999). HELIX biologists Fred Sproul, Larry Sward, and Sally Trnka also conducted general rare plant surveys in May 1999 to determine presence of additional

special-status plant species within the Perkins Property, encompassing the Hidden Canyon project area (Table 1). This species was not observed within the Hidden Canyon project area during the 2019 summer survey pass.

Plant species encountered during the field surveys were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR; formerly CNPS List) follow the CNPS On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2018). 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 2018), and common names follow the U.S. Department of Agriculture's PLANTS Database (USDA 2018).

Three special-status plant species were directly observed within the project area: 5.67 acres (approximately 343 individuals) of wart-stemmed ceanothus (List B); <0.01 acres (26 individuals) of golden-rayed pentachaeta (List D); and 0.47 acres of ashy spike-moss (List D).

Plant species that were observed during surveys are included in Appendix F. Plants that are not expected to occur or have low potential to occur are included in Appendix G, Special-Status Plant Species with Low Potential or Not Expected to Occur within the Project Area. These appendices include all County Lists A–D species (County of San Diego 2010), as well as species recorded in the Rancho Santa Fe quadrangle and the surrounding eight quadrangles (CDFW 2018a; CNPS 2018; SDNHM 2017; USFWS 2018a). The potential-to-occur determination is based on elevation, habitat, and soils present within the project area and on Dudek biologists' knowledge of biological resources in the area and the regional distribution of each species.

5.2 Special-Status Wildlife Species

The County of San Diego divides sensitive wildlife species into County Group 1 and County Group 2 based on the species' rarity and known threats (County of San Diego 2010). County Group 1 species include those that have a high level of sensitivity, are listed as threatened or endangered, or have a natural history requirement that increases their sensitivity. County Group 2 species include those that are becoming less common, although not so rare that extinction is imminent without immediate action. CDFW assigns Species of Special Concern (SSC) status to species whose population levels are declining, have limited ranges, and/or are vulnerable to extinction due to continuing threats (CDFW 2018d). In addition, fully protected species are protected by CDFW, and Watch List species are candidates for higher sensitive status. USFWS provides the Birds of Conservation Concern status to migratory and non-migratory bird species that adhere to the 1988 amendment to the Fish and Wildlife Conservation Act that mandates USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973"

(USFWS 2008). County Group 1 and/or SSC species, as well as County Group 2 species that have been observed in the project area, or those that have a moderate to high potential to occur, are discussed in this section and included in Appendix B, Special-Status Wildlife Species with Moderate to High Potential to Occur within the Project Area. Species that have been observed or have potential to occur, but not during the life history phase that is considered "special status" (e.g., nesting), are described in Appendix C, Special-Status Wildlife Species with Low Potential or Not Expected to Occur within the Project Area.

Incidental detections of wildlife species, either through sight, calls, tracks, scat, or other signs, were also recorded. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, the American Ornithologists' Union for birds (AOU 2018), the North American Butterfly Association for butterflies (NABA 2016), and Wilson and Reeder (2005) for mammals.

The following special-status species were observed within and in the direct vicinity of the project area: Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow, northern harrier, red-shouldered hawk, coastal California gnatcatcher, and mule deer. Although Cooper's hawk, northern harrier, and red-shouldered hawk were observed foraging adjacent or within the project area, these species are not expected to nest in the project area due to the lack of suitable nesting habitat. In addition, there is suitable foraging and nesting habitat for migratory birds; however, there is no suitable nesting habitat for raptors, although there is suitable foraging habitat for raptors adjacent to and within the project area.

Additional special-status wildlife species with a high potential to occur or forage within the project area include San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Blainville's horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), Bell's sage sparrow (*Artemisiospiza belli belli*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) (see Appendix B). Special-status wildlife species with a moderate potential to occur or forage within the project area include red diamondback rattlesnake (*Crotalus ruber*), white-tailed kite (*Elanus leucurus*), loggerhead shrike (*Lanius ludovicianus*) (forage), western bluebird (*Sialia Mexicana*), barn owl (*Tyto alba*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), western mastiff bat (*Eumops perotis californicus*), San Diego desert woodrat (*Neotoma lepida intermedia*), and Peninsular metalmark (*Apodemia virgulti peninsularis*) (see Appendix B). The only species that have a high potential to nest within the project area include Southern California rufous-crowned sparrow, Bell's sage sparrow, coastal California gnatcatcher, and loggerhead shrike (see Appendix B). Due to the lack of forested habitats or large drainages, which provide adequate cover for larger wildlife species (i.e., bobcat [*Lynx rufus*] or cougar [*Puma concolor*]), large mammals are unlikely to occur within the project area.

Coastal California gnatcatcher is a federally listed threatened species, a County Group 1 species, and a proposed Covered Species under the draft NCMSCP Plan. Dudek biologist Paul Lemons

conducted protocol-level surveys for coastal California gnatcatcher within the project area in July and August 2018 (Table 1). Paul Lemons holds a federal permit (Recovery Permit No. TE051248) to conduct coastal California gnatcatcher surveys pursuant to USFWS's coastal California gnatcatcher presence/absence survey protocol (USFWS 1997). The survey included three visits at a minimum of 7-day intervals. Survey routes completely covered areas of coastal scrub habitat within the proposed project area. Survey conditions (time of day and weather conditions) (see Table 1) were within protocol limits specified in the survey protocol. The permitted biologist played a tape of recorded vocalizations approximately every 50 to 100 feet to elicit a response from any gnatcatcher present within the vicinity. Other avian and additional wildlife species incidentally detected during surveys were recorded.

The entire project area is within USFWS-designated Critical Habitat for coastal California gnatcatcher, as shown on Figure 3 (65 FR 63680–63743).

One coastal California gnatcatcher pair was observed on site during the 2018 focused surveys (Appendix A). This species occurs in coastal Southern California and Baja California year-round, where it depends on a variety of arid scrub habitats. California gnatcatcher occurs mainly on cismontane slopes (coastal side of the mountains) in Southern California, ranging from Ventura and northern Los Angeles Counties south through the Palos Verdes Peninsula to Orange, Riverside, San Bernardino, and San Diego Counties. The species' range continues south to El Rosario, Mexico. Initially it was reported that 99% of all coastal California gnatcatcher locality records occurred at or below an elevation of 984 feet above mean sea level (amsl) (Atwood 1993; Atwood and Bolsinger 1992). Since that time, data collected at higher elevations show that the species may occur as high as 3,000 feet amsl, but that more than 99% of the known coastal California gnatcatcher locations occur below 2,500 feet amsl (65 FR 63680–63743). Because of the natural topography of the Southern California hills and mountain ranges, most of the higher-elevation locations are more inland, where population densities tend to be much lower than coastal populations.

Coastal California gnatcatcher typically occurs in or near coastal scrub vegetation that is composed of relatively low-growing, dry-season deciduous and succulent plants. Characteristic plants of this community include coastal sagebrush, various species of sage, California buckwheat, lemonade sumac (*Rhus integrifolia*), California brittle bush (*Encelia californica*), and cactus (e.g., *Opuntia* spp.). Coastal California gnatcatcher also occurs in chaparral, grassland, and riparian vegetation communities where the coastal scrub community is close (Bontrager 1991). Use of these vegetation communities appears to be most frequent during late summer, autumn, and winter, with smaller numbers of birds using such areas during the nesting season. Coastal California gnatcatcher tends to occur most frequently in the coastal sagebrush–dominated stands on mesas, gently sloping areas, and along the lower slopes of the Coast Ranges (Atwood 1990). Coastal California gnatcatcher occurs in high frequencies and densities in coastal scrub communities with

an open or broken canopy, but it is absent from coastal scrub dominated by tall shrubs, and occurs in low frequencies and densities in low coastal scrub with a closed canopy (Weaver 1998).

Coastal California gnatcatcher gleans insects and spiders from foliage of shrubs, primarily California buckwheat and coastal sagebrush (Atwood 1993). Its diet is primarily composed of spiders, but is also composed of wasps, bees, and ants (Burger et al. 1999). Coastal California gnatcatcher habitat use has been positively associated with insect abundance and diversity (Redak et al. 1996, as cited in Diffendorfer et al. 2002).

Coastal California gnatcatcher nests usually are located in a small shrub or cactus 1 to 3 feet above the ground. Territory size varies and is influenced by season and locale (Preston et al. 1998), but is unrelated to vegetation structure (Braden et al. 1997). During the breeding/nesting season, territories in coastal areas are often smaller—averaging 5.7 acres (Atwood et al. 1998)—than those in more inland regions, which average 8.4 acres (Braden et al. 1997).

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6 JURISDICTIONAL WETLANDS AND WATERWAYS

Dudek biologists conducted a jurisdictional assessment in June 2016 for the proposed project area. The project area does not support riparian/wetland vegetation therefore a full jurisdictional delineation was not conducted. Instead the focus was on determining the presence of non-wetland waters/streambed. The project area was reviewed again in August 2018 to confirm the extent of the non-wetland waters identified in the June 2016 site visit. The project area was reviewed in accordance with the methods prescribed in the 1987 Wetland Delineation Manual (ACOE 1987), the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (ACOE 2008a), and A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (ACOE 2008b). Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

Features that convey or hold water are regulated by multiple agencies. Federal, state, and local agencies have different definitions and terminology for these types of features. Water-dependent resources regulated by ACOE, RWQCB, and CDFW are collectively referred to as jurisdictional aquatic resources herein. Terminology used in this document to distinguish each jurisdictional aquatic resource according to the agency that regulates the resource is as follows:

- **ACOE and RWQCB:** "Wetland" and "non-wetland waters." Wetland waters of the United States and non-wetland waters of the United States are subject to regulation by ACOE and RWQCB, pursuant to the Clean Water Act. Within the project area, ACOE waters of the United States and wetlands, and RWQCB waters of the United States and wetlands overlap. Therefore, the terms "non-wetland waters" or "wetlands" refer to both ACOE and RWQCB jurisdictional areas.
- **CDFW:** "Riparian areas" and "streambeds." Lakes, rivers, and streambeds, including any associated riparian habitat, are subject to regulation by CDFW pursuant to the California Fish and Game Code. Within the project area, CDFW streambeds are synonymous with ACOE and RWQCB non-wetland waters, and CDFW riparian areas are synonymous with ACOE and RWQCB wetlands.

The County's RPO (County of San Diego 2012) identifies environmental resources, including wetlands, present within the County, and provides measures to preserve these resources. The RPO defines wetlands as lands that have one or more of the following attributes: (1) lands that at least periodically support a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) lands in which the substratum is predominantly undrained hydric soil; or (3) lands where an ephemeral or perennial stream is present and whose substratum is predominately non-

soil, and where such lands contribute substantially to the biological functions or values of wetlands in the drainage system. County-regulated wetlands were identified where a predominance of hydrophytic vegetation was associated with a stream channel or where an area supported at least one of the three wetlands indicators (i.e., hydrology, hydric soils, or hydrophytic vegetation).

The results of the jurisdictional assessment conducted by Dudek biologists in 2016 and 2018 show that there is one potentially jurisdictional 1-foot-wide to 3-foot-wide ephemeral stream channel within the project area (Figure 3). Although this ephemeral stream channel appears to be erosional (i.e., the OHWM features are not consistent throughout) and does not have an overlapping National Hydrography Dataset flowline, the ephemeral stream channel does convey flows into a larger channel downstream that would provide connectivity to a jurisdictional resource. Therefore, the approximately <0.01-acre (413-linear-foot) ephemeral stream channel would be considered a non-wetland water or streambed potentially under ACOE, RWQCB, and CDFW jurisdiction. There are no jurisdictional wetland or riparian areas within the project area. Based on the lack of hydric soils and hydrophytic vegetation in the ephemeral channel and the presence of well-drained soils, the ephemeral channel does not have the biological functions of a wetland nor does it have populations of wetland dependent species; therefore, it is not considered an RPO wetland.

7 OTHER UNIQUE FEATURES/RESOURCES

According to an existing conditions report previously prepared for the site, the majority of the site burned in the 1996 Elfin Forest fire (HELIX 1999). The site appears to have been completely recovered from this fire. The entire project area is undeveloped and located within draft NCMSCP PAMA-designated lands (see Figure 2). The on-site elevation ranges between 586 and 813 feet amsl. The project area is consists of a gently sloping hilltop. Most of the project area's southern, western, and northern boundaries abut existing open space, with the remainder of the eastern and northern boundaries adjacent to a small subdivision currently under development by Shea Homes. The project area is located approximately 1,000 feet to the east of the Rancho La Costa Preserve, which contains a portion of San Marcos Creek.

The predominant soil type within the project area is Exchequer rocky silt loam, 30% to 70% slopes with a small amount of San Miguel–Exchequer rocky silt loam, 9% to 70% slopes. These are metavolcanic soils that tend to support sensitive plant species.

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Wildlife corridors contribute to population viability by ensuring the continual exchange of genes between populations, which helps maintain genetic diversity; providing access to adjacent habitat areas, representing additional territory for foraging and mating; allowing for a greater carrying capacity; and providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (e.g., fires).

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. The linkage represents a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat islands that function as steppingstones for dispersal.

The project area is entirely within draft NCMSCP PAMA-designated lands and is connected to open space and existing preserves along the northern and western boundaries, which could allow for wildlife movement. Due to the surrounding open space, the project area would be considered part of a larger habitat block but not a wildlife corridor or linkage. The project area has high habitat value according to Figure 3-1 in the draft NCMSCP Habitat Evaluation Model (County of San Diego 2009) given that it supports coastal California gnatcatcher and other smaller to mid-size wildlife species (e.g., birds, reptiles, rabbits, mule deer, or coyote [*Canis latrans*]). These wildlife species would be expected to use the habitat that is located within the adjacent open space preserves for both year-round habitat as well as dispersal corridors during migration or dispersal to new territories. The project area does not include any forested habitats or large drainages, which provide adequate cover for larger wildlife species (i.e., bobcat or cougar), so it is unlikely that these species would occur.

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8 SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

This section addresses direct, indirect, and cumulative impacts to biological resources that would result from implementation of the proposed project. A number of mitigation measures are included as part of the proposed project to avoid, minimize, and/or mitigate potential impacts to less-than-significant levels.

Direct impacts were quantified by overlaying the anticipated limits of grading and fuel modification over the mapped biological resources and quantifying impacts (Figure 4, Biological Resources Impacts). Impacts related to development of the proposed project would occur on approximately 10.40 acres and the remainder of the project area would be designated as open space.

Indirect impacts result from adverse "edge effects," either short-term indirect impacts related to construction including dust, noise, changes in hydrology and construction-related chemical pollutants, or long-term, chronic indirect impacts associated with the location of urban development in proximity to biological resources within natural open space. Long-term indirect impacts to adjacent open space may include generation of fugitive dust, intrusions by humans and domestic pets, noise, lighting, invasion by exotic plant and wildlife species, effects of toxic chemicals (fertilizers, pesticides, herbicides, and other hazardous materials), urban runoff from developed areas, litter, habitat fragmentation, and hydrologic changes. As required by the County of San Diego, the proposed project would include a 100-foot limited building zone easement that provides a buffer between the proposed preserve and development, and is located immediately adjacent to, but outside of, the proposed preserve. The 100-foot limited building zone easement is intended to reduce the edge effects of development on preserve areas. The purpose of this easement is to preclude the need to clear or modify vegetation for fire protection purposes within the adjacent biological open space easement and prohibit the construction or placement of any structure that would require vegetation clearing within the protected biological open space for fuel management purposes. The only exceptions to this prohibition are structures that do not require fuel modification/vegetation management. For this project, the limited building zone and fuel modification zone overlap.

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

8.1 Sensitive Vegetation Communities

8.1.1 Direct Impacts to Sensitive Vegetation Communities

The proposed project includes three residential development pads, associated driveways, and an access road, which will result in a total of 10.40 acres of impacts to coastal sage scrub, mafic southern mixed chaparral, and disturbed habitat. The Project will permanently impact 10.12 acres of sensitive habitat (i.e. coastal sage scrub and mafic southern mixed chaparral) (**Impact V-1**) (see Table 3 and Figure 4). Per the County guidelines, mitigation will be required for impacts to native vegetation (both coastal sage scrub and mafic southern mixed chaparral) within the project area (County of San Diego 2010). Mitigation to reduce this impact to a level of less than significant includes on-site preservation of 13.33 acres (including 1.48 acres of mafic southern mixed chaparral and 11.85 acres of Diegan coastal sage scrub) included in a conservation easement and long-term management by the Escondido Creek Conservancy (TECC).

Table 3
Impacts and Mitigation for the Hidden Canyon Project (Acres)

Vegetation Community/ Land Cover Type	Project Area	Permanent Impacts[a]	FMZ[a]	Total Impacts	On-Site Preservation[b]
Diegan coastal sage scrub[c]	21.43	7.48	1.24	8.72	11.85
Mafic southern mixed chaparral[c]	2.89	0.90	0.51	1.40	1.48
Disturbed habitat	0.56	0.19	0.09	0.28	N/A
Total[d]	**24.88**	**8.58**	**1.84**	**10.40**	**13.33**

Notes: FMZ = fuel modification zone; N/A = not applicable.

[a] A total of 3.90 acres impacted by grading is also designated as fuel modification zone.

[b] The Project would avoid 12.71 acres of Diegan coastal sage scrub and 1.49 acres of mafic southern mixed chaparral; however, 0.88 acres would be located in patches too small to offer biological value. Therefore, the total on-site preservation would be 13.33 acres.

[c] Considered special status by the County of San Diego (2010).

[d] Totals may not sum due to rounding.

Consistent with the County's Section 4(d) HLP process, the project will include mitigation for impacts to 8.72 acres of Diegan coastal sage scrub through on-site preservation of 11.85 acres of Diegan coastal sage scrub, which will be managed in-perpetuity by the TECC. The on-site preserve is located adjacent to an existing preserve, also managed by TECC, and will provide connectivity to areas of high habitat value within the project area vicinity for use by coastal California gnatcatcher.

Under the County's Guidelines for Determining Significance for Biological Resources, the project will include mitigation for impacts to 1.40 acres of mafic southern mixed chaparral through on-site preservation of 1.48 acres of mafic southern mixed chaparral, which will receive a high level of in-perpetuity management by the TECC.

8.1.2 Indirect Impacts to Sensitive Vegetation Communities

Potential short-term indirect impacts to sensitive vegetation communities in the project area at the development/open space interface would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants, including herbicides (**Impact V-2**). Long-term indirect impacts to sensitive vegetation communities would be those occurring after construction and would include non-native invasive species, and increased human activity (**Impact V-2**). These potential impacts are described below.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the construction area. Hydrologic alterations include changes in flow rates and patterns in streams, which may affect adjacent and downstream vegetation communities. Water-quality impacts include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials), erosion, increased turbidity, and excessive sedimentation. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect special-status vegetation communities. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants. No herbicides will be used during construction.

Non-Native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Development may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species, unique vegetation communities, and subsequently suitable habitat for special-status wildlife species. The introduction of non-native, invasive animal species could negatively affect native species that may be pollinators of or seed dispersal agents for plants within special-status vegetation communities.

Increased Human Activity. Increased human activity could result in the potential for trampling of vegetation outside of the permanently impacted areas, as well as soil compaction, and could affect the

viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing non-native plant species to become established, leading to soil erosion. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion.

8.1.3 Significant Impacts to Sensitive Vegetation

Impact V-1: Direct Impacts to Sensitive Vegetation Communities within the Project Area

Direct impacts to 10.12 acres of sensitive upland vegetation communities (i.e., coastal sage scrub and mafic southern mixed chaparral) within the project area would result from construction activities. Impacts would occur in conjunction with three residential development pads, associated driveways, and an access road within the project area. Consistent with the County's Section 4(d) and the RPO, mitigation will consist of permanent on-site preservation of 13.33 acres of habitat in functional habitat blocks adjacent to existing preserves. Potential direct impacts to sensitive vegetation communities would be significant absent mitigation (**Impact V-1**). However, these long- and short-term direct impacts would be mitigated to less than significant through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), and **M-BI-3** (biological open space easement). These measures are further described in Section 8.7, Mitigation Measures and Design Considerations; with implementation of these measures, potentially significant impacts to sensitive vegetation communities within the project area would be mitigated to **less than significant**.

Impact V-2: Indirect Impacts to Sensitive Vegetation Communities within the Project Area

Potential short-term and long-term indirect impacts to sensitive vegetation communities in the project area would primarily result from construction activities and those occurring after construction, and include impacts related to or resulting from the generation of fugitive dust, altered hydrology, chemical pollutants, increased human activity, introduction of non-native species, and the introduction of chemical pollutants (including herbicides) (**Impact V-2**). Absent mitigation, potential short-term and long-term indirect impacts to special-status vegetation communities that occur within the project area would be significant. These indirect impacts would be mitigated to **less than significant** through implementation of **M-BI-1,** which would prevent work occurring outside the development footprint through biological monitoring; **M-BI-2**, which would prevent trampling during construction by installing temporary construction fencing; **M-BI-3**, which would prevent increases in non-native species and human activity within the open space preserve; and **M-BI-5**, which would prevent fugitive dust, chemical pollutants, and changes in hydrology through implementation of BMPs. The full text of these mitigation measures is presented in Section 8.7.

8.2 Special-Status Plant Species

8.2.1 Direct Impacts to Special-Status Plant Species

The proposed project would result in impacts to 2.45 acres of wart-stemmed ceanothus containing approximately 250 individuals (**Impact SP-1**). The exact number of individuals was difficult to discern given the density of the vegetation. Therefore, impacts are based on acreage and not individuals. Wart-stemmed ceanothus is a San Diego County List B and a draft NCMSCP Covered Species. Direct impacts to special-status plant species would be considered significant absent mitigation. As a County List B species, impacts will be mitigated at a 1:1 ratio. The proposed project will include mitigation for impacts through on-site preservation of 3.15 acres of wart-stemmed ceanothus, which provides a higher mitigation ratio than the required 1:1.

The proposed project would also result in impacts to two San Diego County List D species: <0.01 acres (26 individuals) of golden-rayed pentachaeta and 0.19 acres of ashy spike-moss. Although impacts to these species are not considered significant per the County Guidelines, suitable habitat for these species would be conserved within the on-site preserve.

8.2.2 Indirect Impacts to Special-Status Plant Species

Most of the indirect impacts to vegetation communities described in Section 8.1.2, Indirect Impacts to Sensitive Vegetation Communities, can also affect special-status plant species, including the following (**Impact SP-2**): generation of fugitive dust, changes in hydrology, increased human activity, introduction of non-native species, and introduction of chemical pollutants (including herbicides). Clearing, trampling, or grading impacts to special-status plants outside designated construction zones could occur in the absence of avoidance and mitigation measures. These potential effects could damage individual plants and alter their ecosystem, creating gaps in vegetation that allow non-native plant species to become established, thus increasing soil compaction and leading to soil erosion. Any special-status plant species at the edge of the development/open space interface could be impacted by potential indirect impacts, such as those listed in Section 8.1.2 (**Impact SP-2**). Indirect impacts to special-status plant species would be considered significant, absent mitigation.

8.2.3 Significant Impacts to Special-Status Plant Species

Impact SP-1: Direct Impacts to Special-Status Plant Species

Direct impacts to wart-stemmed ceanothus, golden-rayed pentachaeta, and ashy spike-moss could result from construction activities. Potential direct impacts to special-status plant species would be significant, absent mitigation (**Impact SP-1**). These direct impacts would be mitigated to **less than significant** through implementation of **M-BI-1**, which would prevent work occurring outside the

development footprint through biological monitoring; **M-BI-2**, which would prevent trampling during construction by installing temporary construction fencing; and **M-BI-3**, which would conserve populations within the open space preserve. The full text of these mitigation measures is presented in Section 8.7.

Impact SP-2: Indirect Impacts to Special-Status Plant Species

Most of the indirect impacts to vegetation communities described in Section 8.1.2 can also affect sensitive plants. Additionally, clearing, trampling, or grading impacts to special-status plants outside of designated construction zones could occur in the absence of avoidance and mitigation measures. Potential short-term or long-term indirect impacts to special-status plant species in the project area would primarily result from construction activities and those occurring after construction, and include impacts related to or resulting from the generation of fugitive dust, changes in hydrology, increased human activity, introduction of non-native species, and introduction of chemical pollutants (including herbicides) (**Impact SP-2**). Absent mitigation, these indirect impacts would be significant. These indirect impacts would be mitigated to **less than significant** through implementation of **M-BI-1** (biological monitoring), **M-BI-2** (temporary construction fencing), **M-BI-3** (biological open space easement), and **M-BI-5** (BMPs). The full text of these mitigation measures is presented in Section 8.7.

8.3 Special-Status Wildlife Species

8.3.1 Direct Impacts to Special-Status Wildlife Species

Direct impacts to special-status wildlife species listed in Section 5.2 were quantified by comparing the project footprint with suitable habitat for wildlife species. Implementation of the proposed project would result in the direct loss of habitat, including foraging habitat, for County of San Diego Group 1, Group 2, and SSC wildlife species that have a potential to occur within the project area. Specifically, the proposed project would result in the direct loss of 10.12 acres of habitat for special-status wildlife (**Impact W-1**).

Direct impacts could also occur along the interface between development and non-impacted areas. Clearing, trampling, or grading impacts to vegetation communities outside of designated construction zones could occur in the absence of avoidance and mitigation measures (**Impact W-1)**. These potential impacts could reduce suitable habitat for wildlife species and alter their ecosystem, thus creating gaps in vegetation that allow non-native plant species to become established.

Impacts would occur to 10.40 acres of USFWS-designated Critical Habitat for coastal California gnatcatcher. However, of the 10.40-acre total, only 8.72 acres of suitable habitat for this species (i.e., coastal sage scrub) would be impacted through project implementation (**Impact W-2**).

If any active nests or the young of nesting migratory bird species are impacted through direct grading, these impacts would be considered significant, absent mitigation, based on the Migratory Bird Treaty Act (MBTA; 66 FR 3853–3856) (**Impact W-3**).

8.3.2 Indirect Impacts to Special-Status Wildlife Species

Indirect impacts to avian foraging and wildlife access to foraging and nesting would primarily result from construction activities and those occurring after construction (**Impact W-4**). Species potentially affected by such activities include those described in Section 5.2 and Appendix B. Indirect impacts to sensitive bird species may occur if construction is conducted during the breeding/nesting season for most bird species and raptors (i.e., outside the period of February 1–August 31 and as early as January 1 for some raptor species). These potential impacts include the following: generation of fugitive dust, introduction of chemical pollutants (including herbicides), changes in hydrology, introduction of non-native species, noise, increased human activity, and lighting. The potential impacts are described in detail below.

Generation of Fugitive Dust/Chemical Pollutants/Altered Hydrology. The effects of the indirect impacts listed above on special-status wildlife are similar to what is described in Section 8.1.2 for sensitive vegetation communities.

Non-Native, Invasive Plant and Animal Species. Trash from construction-related activities could attract invasive predators such as common ravens (*Corvus corax*) and coyotes that could impact the wildlife species in the project area.

Noise/Increased Human Activity. Construction-related noise and vibration could occur from equipment used during site preparation and grading, including vegetation clearing, and construction of the proposed project. Construction would occur during the day; no construction is proposed to take place at night. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). Both development- and construction-related noise generators could have an indirect impact on wildlife species.

An increased human population increases the risk for damage to suitable habitat for wildlife species. In addition, increased human activity can deter wildlife from using habitat areas near the development. Increasing the presence of humans adjacent to development could also increase the amount of domestic pets within the preserve easement.

Increased human activity in the project area is expected to result in long-term noise effects in the area. Noise is expected to be greatest during daylight hours and therefore would be more of a disturbance to

those species that are active during the daytime. Nocturnal wildlife would not be significantly impacted while foraging or moving in open space areas, because the noise levels would be lower at night. Noise pollution is not anticipated to decrease breeding of any special-status species.

However, the proposed project is located immediately adjacent to an existing development. These three houses are not anticipated to increase the noise and human activity to a significant level.

Lighting. Some localized security-related lighting may be required during construction and/or operation; lighting would conform to County of San Diego outdoor lighting requirements. These impacts would be short term. Urban development and general human activity (e.g., nighttime light from vehicles, home security systems) would result in light pollution and possibly disrupt dark skies. Long-term lighting may deter nocturnal wildlife from traversing through developed areas and restrict movements to area of open space. However, due to the size of the development, which includes only three residential homes, long-term lighting is not expected to result in significant impacts to wildlife species.

8.3.3 Significant Impacts to Special-Status Wildlife Species

Impact W-1: Direct Impacts to Habitat for Special-Status Wildlife Species

Loss of 10.12 acres of suitable habitat and to special-status wildlife species (County Group 1, Group 2, or SSC), including all those listed in Section 5.2 and Appendix B, from construction-related activities would result in direct impacts that would be significant (**Impact W-1**). The proposed project would include biological monitoring to avoid unintentional impacts to species and habitat (**M-BI-1**), temporary construction fencing (**M-BI-2**), conservation of suitable habitat within the open space preserve (**M-BI-3**), and pre-construction nesting bird surveys (**M-BI-4**). Therefore, with mitigation, direct impacts to County Group 1 or Group 2 or SSC wildlife species would be **less than significant**. The full text of these mitigation measures is presented in Section 8.7.

Impact W-2: Direct Impacts to USFWS-Designated Critical Habitat

Loss of USFWS-designated Critical Habitat for coastal California gnatcatcher (**Impact W-2**) would be mitigated through conservation of suitable habitat within the open space preserve through habitat conveyance and preservation (**M-BI-3**). Therefore, with the mitigation proposed, direct impacts to Critical Habitat for this species would be **less than significant**.

Impact W-3: Permanent Direct Impacts to Birds under the MBTA

If any active nests or the young of nesting bird species are impacted through direct grading, these impacts would be significant, absent mitigation, based on the MBTA (**Impact W-3**). It is recommended that clearing of vegetation occur outside of the typical nesting period for most bird

species and raptors (i.e., outside the period of February 1–August 31 and as early as January 1 for some raptor species) to limit impacts to nesting birds and raptors. If clearing is required within the nesting period, a nesting bird survey would be conducted within 72 hours of proposed project implementation, as described in **M-BI-4** (pre-construction surveys for nesting birds). The proposed project could also result in direct impacts to birds during clearing and grubbing of vegetation in preparation for construction. A biological monitor would be required to be on site to flush wildlife from occupied habitat areas immediately prior to brush-clearing and earth-moving activities, thus reducing the potential for direct impacts (**M-BI-1**). With these mitigation measures, impacts to nesting birds and raptors and other sensitive status species would be less than significant. Therefore, impacts to birds under the MBTA would be **less than significant**.

Impact W-4: Indirect Impacts to Special-Status Wildlife Species

Potential long-term or permanent indirect impacts to special-status wildlife species include generation of generation of fugitive dust, introduction of chemical pollutants (including herbicides), changes in hydrology, introduction of non-native species, noise, increased human activity, and lighting (**Impact W-4**). Absent mitigation, these impacts would be significant. These indirect impacts would be mitigated to **less than significant** through implementation of **M-BI-1**, which would prevent wildlife entrapment and verify that artificial security light fixtures are directed away from open space and are shielded through biological monitoring; **M-BI-2**, which would prevent human activity outside of the work limits during construction by installing temporary construction fencing; **M-BI-3**, which would prevent increases in non-native species and human activity within the open space preserve; **M-BI-5**, which would prevent fugitive dust, limit trash and chemical pollutants during construction and would prevent changes in hydrology through implementation of BMPs; and **M-BI-6**, which would incorporate noise-reduction measures during construction or be curtailed during the breeding/nesting season (i.e., outside the period of January 1–August 31) of migratory bird species (including coastal California gnatcatcher).

8.4 Jurisdictional Aquatic Resources

No impacts would occur within the ephemeral stream channel, which is a potential jurisdictional resource under ACOE, RWQCB, and CDFW. Impacts will be avoided with a prefabricated aluminum span where the road traverses the ephemeral stream channel. For areas within the ephemeral stream channel proposed for fuel modification, no selective thinning would occur. Therefore, all impacts would be avoided within jurisdictional resources.

8.5 Habitat Connectivity and Wildlife Corridors

The project area does not function as a wildlife corridor or provide for habitat connectivity. Since the project area is adjacent to existing development associated with residential development and water tank

along the northern boundary and the residential development along the eastern boundary, connectivity has already been restricted. Habitat connectivity into adjacent open space preserve areas along the western and northern boundaries of the project area would continue to occur after project implementation. Additionally, 13.33 acres of the project area (54%) will be conserved as an open space easement, which would allow for continued use through this area (see Figure 5, Open Space Preserve Design). Perimeter fencing is not planned where the open space preserve abuts other undeveloped land, but fencing would be placed along the edge of grading for each of the three residential development pads (the preliminary fencing locations are shown on Figure 5.) The main entrance would be gated to keep public off the road providing access to the residential area and open space, as shown on Figure 5. In addition, a Resource Management Plan has been prepared according to County guidelines and includes all the requirements for managing the on-site open space; see Appendix H for details.

The loss of 10.12 acres of native habitat resulting from the proposed Project would not preclude connectivity between areas of high habitat value within the project area vicinity. Therefore, no direct or indirect impacts to wildlife corridors or habitat linkages are anticipated with project implementation. Any impacts to wildlife species present within or moving through the project area are discussed in Section 8.3, Special-Status Wildlife Species.

8.6 Impacts to Regional Resource Planning

Although the project area is located within PAMA-designated lands, the draft NCMSCP assumes that a portion of the upland habitat within the PAMA will be used for development (County of San Diego 2009). All impacts will be fully mitigated and the mitigation for impacts will occur through on-site preservation. Therefore, project implementation would not conflict with the Draft NCMSCP or preclude it from being implemented.

In order for the proposed project to obtain approval for the loss of coastal sage scrub and any associated incidental take of coastal California gnatcatcher through the County's Section 4(d) HLP process, the proposed project must demonstrate conformance with overall programmatic goals and policies established for the San Diego County NCCP subregion and make the specific findings applicable to issuance of an HLP. The proposed project may also obtain take authorization through Section 7 consultation with USFWS. Therefore, adherence to the San Diego County NCCP for impacts to coastal sage scrub would be obtained through the Draft HLP.

Because there are no wetland or riparian areas within the project area and impacts to sensitive lands will be mitigated through on-site preservation, providing an equal or greater benefit to coastal California gnatcatcher, implementation of the proposed project would not conflict with the RPO (County of San Diego 2012). Additionally, because the development within the project area is situated adjacent to existing development, the project would not preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Process Guidelines (CDFG and CRA 1993).

8.7 Mitigation Measures and Design Considerations

M-BI-1 **Biological Monitoring.** To prevent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits the proposed project applicant or its designee shall provide written confirmation that a biological monitor approved by the County of San Diego has been retained and shall be present during clearing, grubbing, and/or grading activities within sensitive resources.

Biological monitoring shall include the following:

a. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).

b. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading. Perform weekly inspection of fencing and erosion control measures (daily during rain events) near proposed preservation areas.

c. Discuss procedures/training for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading.

d. Supervise and monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved.

e. Flush species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.

f. Verify that the construction site is implementing best management practices (BMPs). The BMPs are described in further detail in M-BI-5.

g. Periodically monitor the construction site in accordance with the proposed project's fugitive dust control plan. Periodically monitor the construction site to see that dust is minimized according to the fugitive dust control plan and that manufactured slopes are revegetated as soon as possible.

h. Periodically monitor the construction site to verify that artificial security light fixtures are directed away from open space and are shielded.

i. Oversee the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and

excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

M-BI-2 **Temporary Construction Fencing.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the proposed project applicant or its designee shall install prominently colored fencing and signage wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the open space preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of the County of San Diego Planning & Development Services (or his/her designee) and the Director of Parks and Recreation that work was conducted as authorized under the approved land development permit and associated plans.

M-BI-3 **On-Site Biological Open Space Easement.** A total of 13.33 acres of on-site open space shall be preserved and managed through the County of San Diego (County) biological open space easement. This easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. Granting this biological open space shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation. The only exceptions to this prohibition are as follows:

1. A limited building zone has been applied along the open space to protect sensitive resources. The building of structures that would require vegetation clearing for fuel management purposes would be prohibited within this zone. All fire clearing shall be pursuant to the applicable fire code of the fire authority having jurisdiction, and the Memorandum of Understanding dated February 26, 1997, between the wildlife agencies and the fire districts and any subsequent amendments thereto.

2. Activities conducted pursuant to a resource management plan approved by the Director of the County Planning & Development Services.
3. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the County Department of Environmental Health.

A Resource Management Plan has been prepared according to County guidelines and includes all the requirements for managing the on-site open space. A summary of those requirements is as follows:

1. Long-term monthly monitoring: The resource manager, the Escondido Creek Conservancy (TECC), shall visit the open space each month in order to monitor the overall conditions of the open space and determine if any management tasks are required. Twice a year surveys for coastal California gnatcatcher, conducted by a coastal California gnatcatcher permitted biologist, will be combined with the monthly monitoring visits. The remaining 10 monthly visits per year can be conducted by non-biologists and should focus on assessing potential access issues (e.g., verifying fences are in good condition and noting any new trails, areas of cut vegetation, ground disturbance) and trash removal.
2. Weed control measures will be implemented, as necessary, to prevent expansion of existing or establishment of new exotic species in the open space preserve.
3. Because the open space preserve is located adjacent to other undeveloped land, perimeter fencing is not planned. Fencing will be placed along the edge of grading for each of the three residential development pads. The final design and location of the fencing will be given to TECC. The fencing can be any material but glass or other transparent material that would potentially lead to bird-strike issues. The main entrance shall be gated to keep public off the road providing access to the residential area and open space. Open space signage shall be installed along the open space boundaries that interface with other open space and where open space is adjacent to roadways and residential areas and shall be corrosion resistant. The signs must be in good condition and visible at all times, and must be replaced, repaired, and/or cleaned as directed by TECC.
4. An annual monitoring report will be submitted to the County and the resource agencies that will summarize the overall condition of vegetation communities and sensitive species in the open space preserve, outline proposed management tasks for the following year, and provide results of management activities proposed in the previous report.

M-BI-4 **Nesting Bird Survey.** To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act (16 USC 703 et seq.), removal of habitat that supports active nests on the proposed area of disturbance shall occur outside of the nesting season for these species (January 15 through August 31, annually). If, however, removal of habitat on the proposed area of disturbance must occur during the nesting season, the proposed project applicant or its designee shall retain a biologist approved by the County of San Diego (County) to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within 72 hours prior to the start of construction, and the results must be submitted to the Director of County Planning & Development Services for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the County, shall be prepared and include proposed measures to be implemented to ensure that disturbance of nesting activities are avoided. The report or mitigation plan shall be submitted to the County for review and approval and implemented to the satisfaction of the Director of Planning & Development Services (or her/his designee). The County's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

M-BI-5 **Best Management Practices.** Prior to issuance of grading permits, the proposed project applicant or its designee shall outline best management practices (BMPs) that will be implemented during construction. The BMPs shall be developed, approved, and implemented during construction to control stormwater runoff such that erosion, sedimentation, pollution, runoff, and other adverse effects are minimized. The implementation of these requirements shall protect adjacent habitats and special-status species during construction to the maximum extent practicable. At a minimum, the following measures and/or restrictions shall be noted on construction plans, where appropriate, to avoid impacts on special-status species, sensitive vegetation communities, and/or jurisdictional waters during construction.

The project biologist shall verify the implementation of the following design requirements:

1. Fully covered trash receptacles that are animal-proof and weather-proof will be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Prohibit littering and remove trash from construction areas daily. All food-related trash and garbage shall be removed from the construction sites on a daily basis.

2. Pets on or adjacent to construction sites will not be permitted by the operator.
3. Construction activity will not be permitted in jurisdictional waters, except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board.
4. Temporary structures and storage of construction materials will not be located in jurisdictional waters.
5. Staging/storage areas for construction equipment and materials will not be located in jurisdictional waters.
6. Any equipment or vehicles driven and/or operated adjacent to a jurisdictional water will be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse.
7. No stationary equipment, such as motors, pumps, generators, and welders, or fuel storage tanks will be located within or adjacent to jurisdictional waters.
8. No debris, bark, slash sawdust, rubbish, cement, or concrete, or washing thereof, oil, or petroleum products will be stored where it may be washed by rainfall or runoff into jurisdictional waters.
9. When construction operations are completed, any excess materials or debris will be removed from the work area.
10. No equipment maintenance will be performed within or near jurisdictional waters, where petroleum products or other pollutants from the equipment may enter these areas.
11. Sediment shall be retained within the development footprint by a system of sediment basins, traps, or other appropriate measures.
12. Permanent energy dissipaters shall be included for drainage outlets.
13. During construction, the project shall use silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydroseeding as necessary and applicable.

M-BI-6 **Noise.** Construction-related activities that are excessively noisy (e.g., clearing, grading, or grubbing) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

There shall be no construction-related activities allowed during the breeding season of migratory birds or raptors (January 15 through August 31) or coastal California gnatcatcher (February 15 through August 31). The Director of the County of San

Diego (County) Planning & Development Services may waive this condition, through written concurrence from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (i.e., Wildlife Agencies), provided that no nesting or breeding birds are present within 300 feet of the construction activities (500 feet for raptors) based on a preconstruction survey.

If construction-related activities that are excessively noisy (e.g., clearing, grading, or grubbing) occur during the period of February 15 through August 31, a County-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area. If the habitat is suitable for raptors, the survey area shall extend to 500 feet from the impact area, and if the habitat is suitable only for nesting by non-listed and non-raptor avifauna, the survey area shall extend 50 to 300 feet from the impact area, depending on the habitat type. The survey shall begin not more than 3 days prior to the beginning of construction activities. If nesting birds are detected by the biologist, the following buffers shall be established: (1) no work within 50 feet of a non-listed and non-raptor avifauna nest; (2) no work within 300 feet of a federally or state-listed species, such as coastal California gnatcatcher; and (3) no work within 500 feet of a raptor nest. The buffer shall be flagged in the field and mapped on the construction plans. To the extent possible, the non-construction buffer zones shall be avoided until the nesting cycle is complete. However, it may be reasonable for the County to reduce these buffer widths depending on site conditions (e.g., the width and type of screening vegetation) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction-related activities must take place within these buffer widths, the proposed project applicant or its designee shall contact the County to determine how to best minimize impacts to nesting birds.

Specific to coastal California gnatcatcher and nesting raptors, construction-related noise levels in coastal California gnatcatcher-occupied habitat within 500 feet of construction activity shall not exceed 60 A-weighted decibels equivalent continuous sound level (dBA L_{eq}) or preconstruction ambient noise levels, whichever is greater. Proposed project construction within 500 feet of occupied habitat shall occur outside of the breeding season, if possible. If necessary, construction activities during the breeding season shall be managed to limit noise levels in occupied habitat within 500 feet of the site, or noise attenuation measures, such as temporary sound walls, shall be implemented to reduce noise levels below 60 dBA L_{eq} or below existing ambient noise levels, whichever is greater. Protocol surveys shall be conducted by a permitted biologist with a Section 10(a)(1)(A) permit for coastal California gnatcatcher prior to clearing and grubbing of vegetation and/or grading activities, and the results submitted to the County prior to clearing and grubbing of vegetation and/or grading activities.

9 CUMULATIVE IMPACTS

The project would include measures to fully mitigate all impacts according to the County guidelines; therefore, the project meets all the requirements and there are no cumulative impacts.

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10 REFERENCES

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

16 USC 703–712. Migratory Bird Treaty Act, as amended.

65 FR 63680–63743. Final rule: "Final Determination of Critical Habitat for the Coastal California Gnatcatcher." October 24, 2000.

66 FR 3853–3856. Executive Order 13186: "Responsibilities of Federal Agencies to Protect Migratory Birds." January 17, 2001.

ACOE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual.* Wetlands Research Program Technical Report Y-87-1 (online edition). Vicksburg, MS: ACOE, Waterways Experiment Station, Environmental Laboratory. January 1987.

ACOE. 2008a. *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. September 2008. http://el.erdc.usace.army.mil/elpubs/pdf/trel08-28.pdf.

ACOE. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual*. ERDC/CRREL TR-08-12. Prepared by R.W. Lichvar and S.M. McColley, ACOE Research and Development Center, Cold Regions Research and Engineering Laboratory. August 2008. http://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Ordinary_High_Watermark_Manual_Aug_2008.pdf.

AOU (American Ornithologists' Union). 2018. *Check-List of North and Middle American Birds; Incorporated Changes through the 59th Supplement*. Accessed August 2018. http://checklist.aou.org/.

Atwood, J.L. 1990. *Status Review of the California Gnatcatcher (*Polioptila californica*)*. Manomet, Massachusetts: Manomet Bird Observatory. December 1990.

Atwood, J.L. 1993. "California Gnatcatchers and Coastal Sage Scrub: The Biological Basis for Endangered Species Listing." In *Interface between Ecology and Land Development in California,* ed. J.E. Keeley, 149–169. Los Angeles, California: Southern California Academy of Sciences.

Atwood, J.L., and J.S. Bolsinger. 1992. "Elevational Distribution of California Gnatcatchers in the United States." *Journal of Field Ornithology* 63:159–168.

Atwood, J.L, D.R. Bontrager, M.R. Fugagli, R. Hirsch, D. Kamada, M. Madden, C.H. Reynolds, S. Tsai, and P.A. Bowler. 1998. *Population Dynamics, Dispersal, and Demography of California Gnatcatchers and Cactus Wrens in Coastal Southern California*. 1997 Progress Report. Manomet Center for Conservation Science and University of California, Irvine.

Bontrager, D.R. 1991. "Habitat Requirements, Home Range Requirements, and Breeding Biology of the California Gnatcatcher (*Polioptila californica*) in South Orange County, California." Prepared for Santa Margarita Company, Ranch Santa Margarita, California. April 1991.

Bowman, R.H. 1973. *Soil Survey, San Diego Area, California, Part 1*. U.S. Department of Agriculture.

Braden, G.T., R.L. McKernan, and S.M. Powell. 1997. "Association of within Territory Vegetation Characteristics and Fitness Components of California Gnatcatchers." *Auk* 114:601–609.

Burger, J.C., M.A. Patten, J.T. Rotenberry, and R.A. Redak. 1999. "Foraging Ecology of the California Gnatcatcher Deduced from Fecal Samples." *Oecologia* 120:304–310.

CDFG and CRA (California Department of Fish and Game and California Resources Agency). 1993. *Southern California Coastal Sage Scrub NCCP Process Guidelines*. Produced by CDFG and CRA in coordination with the U.S. Fish and Wildlife Service. As amended November 1993.

CDFW (California Department of Fish and Wildlife). 2018a. *RareFind*, Version 5.2.14. California Natural Diversity Database. Accessed August 2018. https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

CDFW. 2018b. *List of California Vegetation Alliances and Associations: Natural Communities List Arranged Alphabetically by Life Form*. January 2018. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline.

CDFW. 2018c. CNDDB. *Special Vascular Plants, Bryophytes, and Lichens List*. California Natural Diversity Database. August 2018. Accessed August 2018. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline.

CDFW. 2018d. "Special Animals List." CDFW, Biogeographic Data Branch. August 2018. Accessed August 2018. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline.

CNPS (California Native Plant Society). 2018. *Inventory of Rare and Endangered Plants* (online edition v8-03 0.45). Sacramento: CNPS, Rare Plant Program. Accessed August 2018. www.rareplants.cnps.org.

County of San Diego. 2009. *Preliminary Public Review Draft: Multiple Species Conservation Program North County Plan.* Volume I. February 19, 2009. Accessed August 2018. https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/MSCPNorthCountyPlan.pdf

County of San Diego. 2010. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources.* Fourth Revision. Land Use and Environment Group, Department of Land Use and Planning & Development Services, Department of Public Works. September 15, 2010. https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Biological_Guidelines.pdf

County of San Diego. 2012. San Diego Code of Regulatory Ordinances. Title 8; Division 6; Chapter 6. Resource Protection Ordinance. Amended by Ord. No. 10224 (N.S.), effective October 25, 2012. http://www.sandiegocounty.gov/pds/docs/res_prot_ord.pdf.

County of San Diego. 2014a. *San Dieguito Community Plan*. Adopted August 3, 2011. Amended June 18, 2014. Accessed August 2018. https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/San_Dieguito_Community_Plan.pdf.

County of San Diego. 2014b. "Planning Agreement by and among the County of San Diego, the California Department of Fish and Game, and the United States Fish and Wildlife Services regarding the North and East County Multiple Species Conservation Program Plans: Natural Community Conservation Program Plans and Habitat Conservation Plan." Revised and Amended May 12, 2014. https://www.sandiegocounty.gov/pds/mscp/docs/P_A_SIGNED.pdf.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* FWS/OBS-79/31. Prepared for U.S. Fish and Wildlife Service. December 1979. Reprinted 1992. http://www.fws.gov/wetlands/documents/classification-of-wetlands-and-deepwater-habitats-of-the-united-states.pdf.

Crother, B.I. 2012. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding,* edited by J.J. Moriarty. 7th ed. Society for the Study of Amphibians and Reptiles (SSAR); Herpetological Circular, no. 39. August 2012. Accessed 2015. http://home.gwu.edu/~rpyron/publications/Crother_et_al_2012.pdf.

Diffendorfer, D.E., R.E. Chapman, J.M. Duggan, G.M. Fleming, M. Mitrovitch, M.E. Rahn, and R. del Rosario. 2002. *Coastal Sage Scrub Response to Disturbance: A Literature Review and Annotated Bibliography*. Prepared for the California Department of Fish and Game. San Diego: San Diego State University, Department of Biology. February 28, 2002.

HELIX. 1999. "Existing Conditions and Constraints for the Perkins Property." November 1999.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California Department of Fish and Game.

Lovich, J.E., and J.R. Ennen. 2011. "Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States." *Bioscience* 61:982–992.

Jepson Flora Project. 2018. *Jepson eFlora*. Berkeley, California: University of California. Accessed August 2018. http://ucjeps.berkeley.edu/eflora/.

NABA (North American Butterfly Association). 2016. "Checklist of North American Butterflies Occurring North of Mexico." Adapted from "North American Butterfly Association (NABA) Checklist and English Names of North American Butterflies," Edition 2.3. Accessed August 2018. http://www.naba.org/pubs/enames2_3.html.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," by R.F. Holland, October 1986. March 2008.

RWQCB (California Regional Water Quality Control Board). 1994. *Water Quality Control Plan for the San Diego Basin*. September 1994; amended May 17, 2016.

SDNHM (San Diego Natural History Museum). 2017. *San Diego County Mammal Atlas*. Edited by S. Tremor, D. Stokes, W. Spencer, J. Diffendorfer, H. Thomas, S. Chivers, and P. Unitt.

SDNHM. 2018. Data retrieved from Herbarium and Plant Atlas databases. San Diego County Plant Atlas Project. Online ed. Accessed August 2018. http://www.sdplantatlas.org/publicsearch.aspx.

Unitt, P. 2004. *San Diego County Bird Atlas*. San Diego, California: San Diego Natural History Museum.

USDA (U.S. Department of Agriculture). 2017. Web Soil Survey. USDA, Natural Resources Conservation Service. Accessed August 2018. https://websoilsurvey.sc.egov.usda.gov/.

USDA. 2018. *The PLANTS Database*. Greensboro, North Carolina: USDA, Natural Resources Conservation Service, National Plant Data Team. http://plants.usda.gov/.

USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Protocol*. Carlsbad, California: USFWS. Revised July 28, 1997. Accessed August 2018. http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/CCalGnatcatcher.1997.protocol.pdf.

USFWS. 2008. *Birds of Conservation Concern*. Arlington, Virginia: USFWS, Division of Migratory Bird Management. December 2008. https://www.fws.gov/migratorybirds/pdf/grants/BirdsofConservationConcern2008.pdf.

USFWS. 2014. *Quino Checkerspot Butterfly Survey Guidelines*. Carlsbad, California: USFWS December 15, 2014.

USFWS. 2018a. "Critical Habitat and Occurrence Data" [map]. Accessed August 2018. http://www.fws.gov/data.

USFWS. 2018b. "NWI Wetlands for California" [Shapefiles]. National Wetlands Inventory. Data last updated March 5, 2013. Accessed August 2018. http://www.fws.gov/wetlands/Data/State-Downloads.html.

USGS (U.S. Geological Survey). 2018. "National Hydrography Dataset" [digital GIS data]. Data last updated April 19, 2018. http://nhd.usgs.gov/.

Wilson, D.E., and D.M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*, 3rd ed. (MSW3 database). Accessed 2015. http://www.departments.bucknell.edu/biology/resources/msw3/browse.asp.

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11 LIST OF PREPARERS

This report was prepared by Dudek biologists Danielle Mullen and Mackenzie Forgey. Review was provided by Patricia Schuyler and Vipul Joshi. Graphics and GIS analyses were provided by Andrew Greis. Publications assistance was provided by Daniela Yurovsky.

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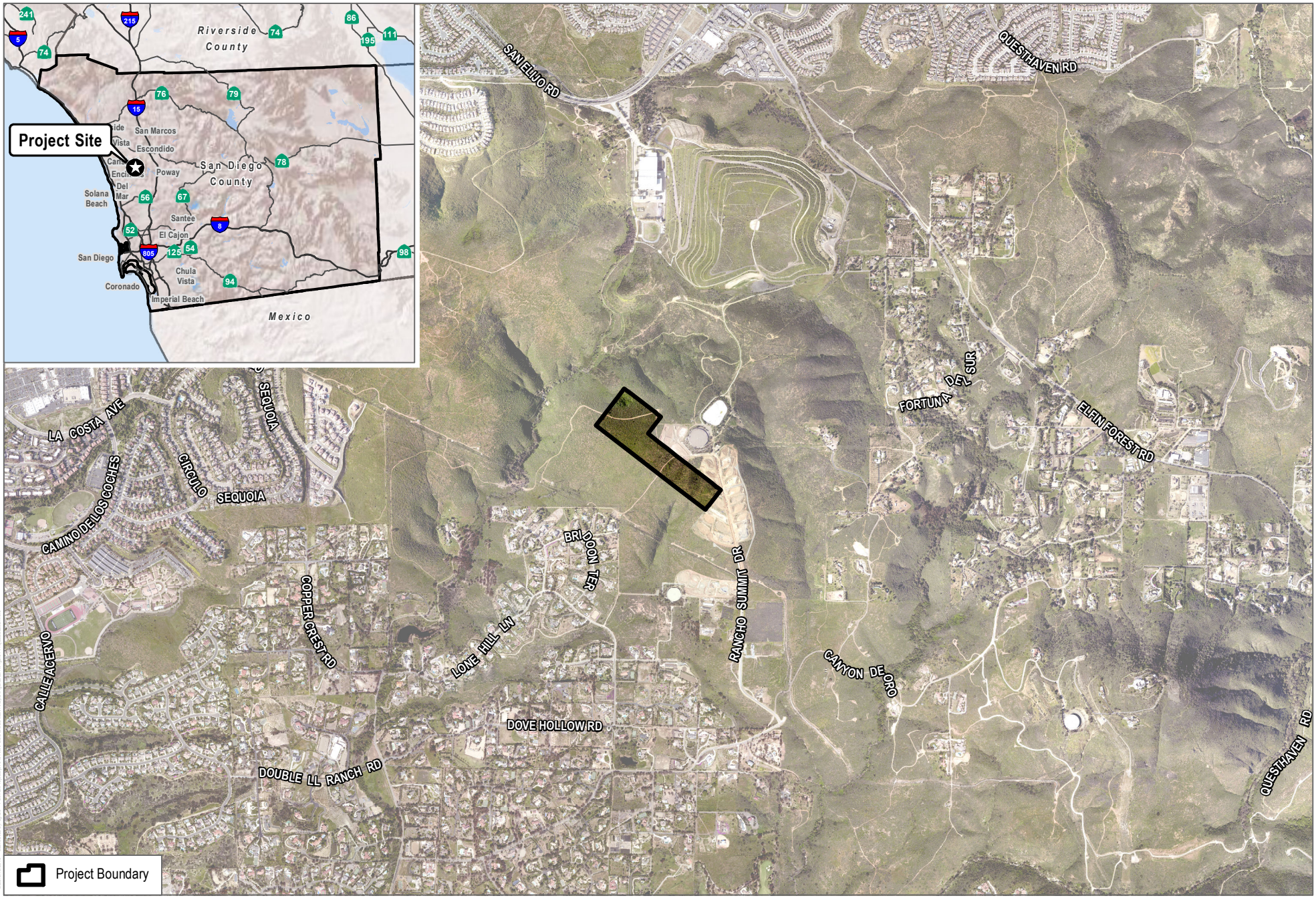

SOURCE: Shapouri 2018; SANGIS 2017, 2018

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Hidden Canyon

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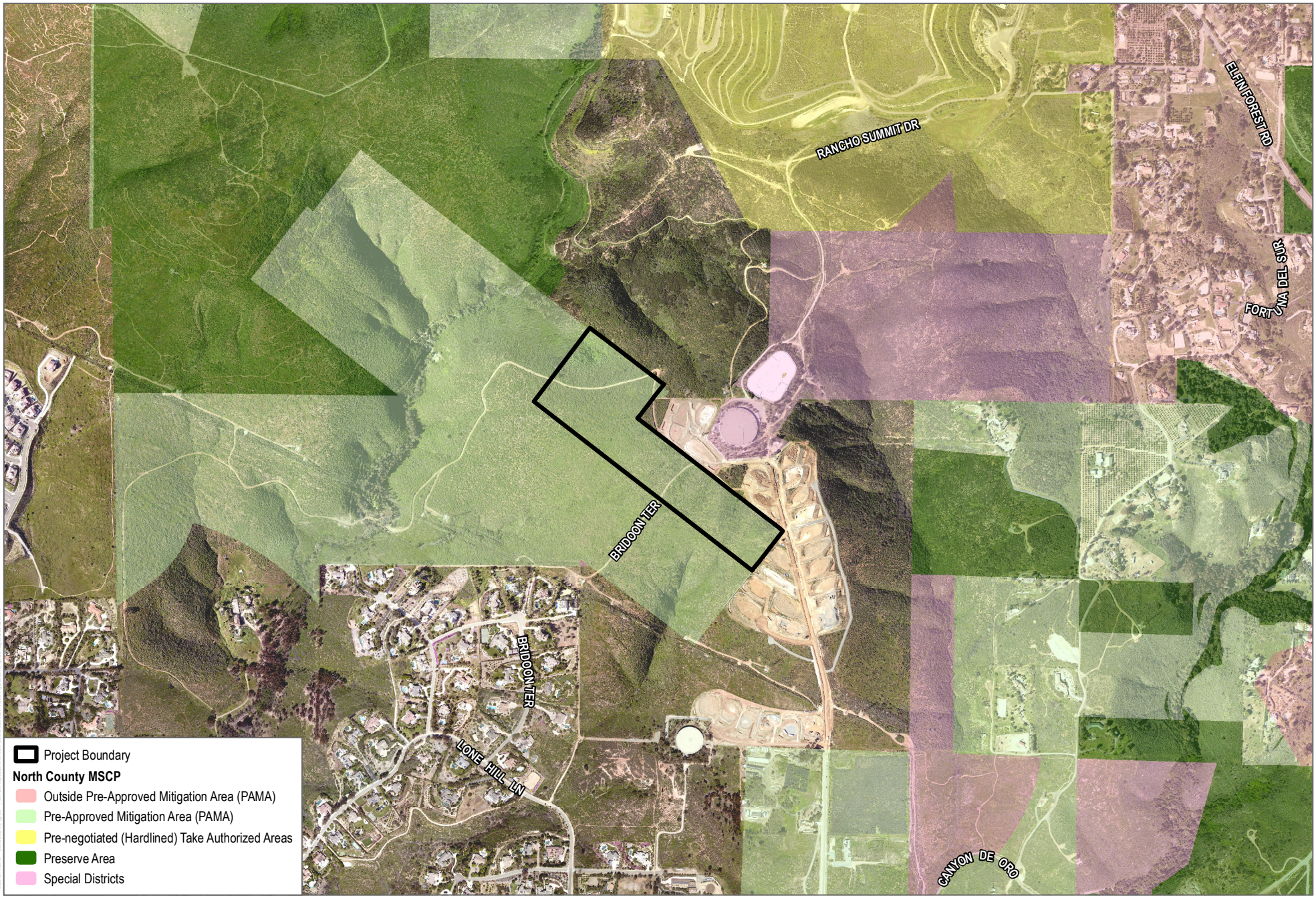

SOURCE: SANGIS 2017, 2018

DUDEK

0 500 1,000 Feet

FIGURE 2

Regional Context

Hidden Canyon

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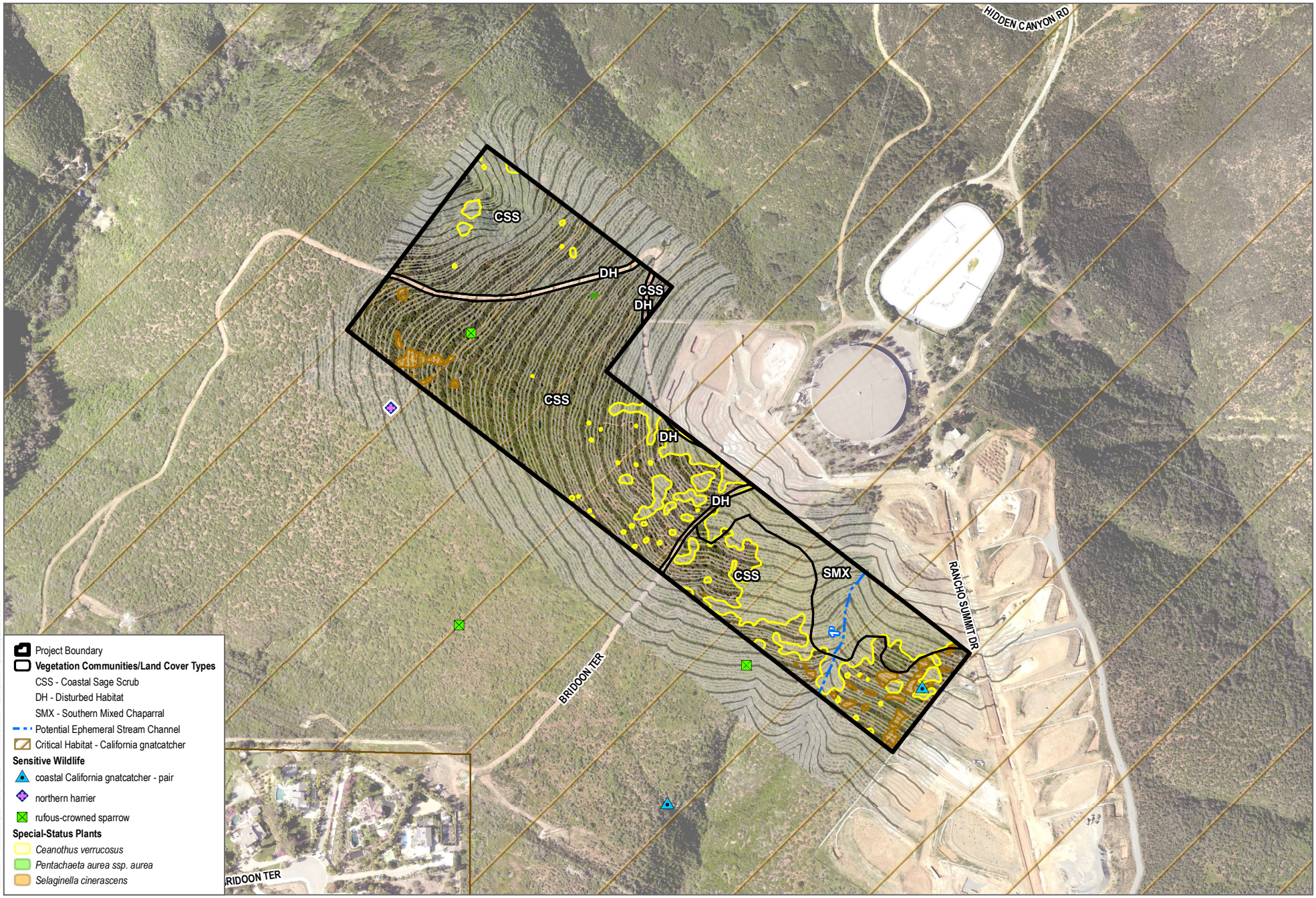

SOURCE: Shapouri, 2018; SANGIS 2017, 2018; USFWS 2018

DUDEK

0 200 400 Feet

FIGURE 3

Biological Resources

Hidden Canyon

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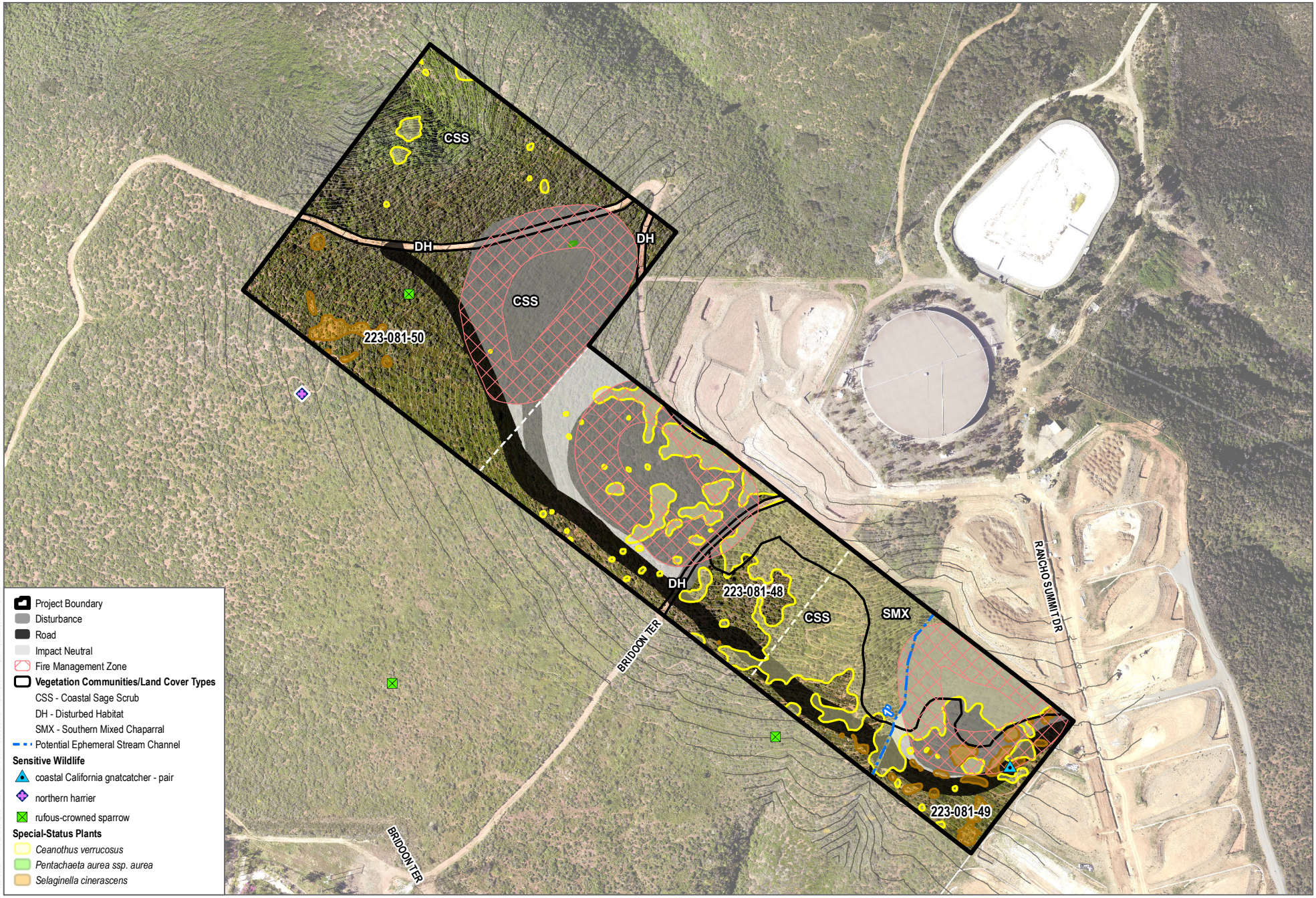

SOURCE: Shapouri, 2018; SANGIS 2017, 2018

DUDEK

0 200 400 Feet

FIGURE 4

Biological Resources Impacts

Hidden Canyon

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SOURCE: Shapouri, 2018; SANGIS 2017, 2019

DUDEK

0 200 400 Feet

FIGURE 5

Open Space Preserve Design

Hidden Canyon

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APPENDIX A

2018 Coastal California Gnatcatcher Survey Report

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

September 11, 2018 9701

U.S. Fish and Wildlife Service
Attn: Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: Focused California Gnatcatcher Survey Report for the Proposed Hidden Canyon Project, San Diego County, California

Dear Recovery Permit Coordinator:

This report documents the results of three breeding season and five non-breeding season protocol-level presence/absence surveys for the federally-listed threatened coastal California gnatcatcher (*Polioptila californica californica,* CAGN). This focused survey effort included approximately 21 acres of suitable CAGN habitat within the approximately 25-acre proposed Hidden Canyon Project site.

The California gnatcatcher is a federally listed threatened species and a California Department of Fish and Game species of Special of Special Concern. It is closely associated with coastal sage scrub habitat, and is thereby threatened primarily by loss, degradation, and fragmentation of this habitat. CAGN typically occurs below 820 feet above mean sea level (amsl) within 22 miles of the coast and 1640 feet amsl for inland regions (Atwood and Bolsinger 1992). In addition, studies have suggested that gnatcatchers avoid nesting on very steep slopes (greater than 40%) (Bontrager 1991). CAGN is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism (Braden et al. 1997).

Location and Existing Conditions

The proposed Hidden Canyon Project site is located within northern San Diego County on a portion of the former Perkins property situated east of the City of Encinitas, south of the City of San Marcos, and north of the community of Rancho Santa Fe (Figures 1 and 2). The approximate center of the project is 33°4' 44.835" north latitude, 117°12' 8.008" west longitude on the U.S. Geological Survey 7.5-minute series topographic Rancho Santa Fe quadrangle map Section 04, 05, and 33, Range 3 West, Township 12 South and 13 South. The proposed project boundary is consistent with the limits of Assessor's Parcel Numbers (APNs) 223-081-50, 223-081-48, and 223-081-49.

The entire Project site is undeveloped land. The on-site elevation ranges between 586 and 813 feet above mean sea level (amsl). The site consists of a gently sloping hillside.

The predominant soil type within the project site is Exchequer rocky silt loam, 30% to 70% slopes with a small amount of San Miguel-Exchequer rock silt loam, 9% to 70% slopes. These are metavolcanic soils that tend to support sensitive plant species.

Vegetation Communities

One vegetation community/land cover was identified within the project site buffer area as potentially suitable habitat for the CAGN: Diegan coastal sage scrub. Diegan coastal sage scrub is described below; its acreage is presented in Table 1, and its spatial distribution is presented on Figure 2. A small area of southern mixed chaparral (2.89 acres) occurs onsite and was also surveyed for CAGN because it occurs immediately adjacent to the CAGN-suitable Diegan coastal sage scrub.

Table 1. Suitable California Gnatcatcher Habitat Occurring within the Hidden Canyon Project Site

Vegetation Community/Land Cover	Acres
Diegan coastal sage scrub	21.43
Total	**21.43**

Diegan Coastal Sage Scrub

Diegan coastal sage scrub is the widespread coastal sage scrub in coastal Southern California from Los Angeles into Baja California (Oberbauer et al. 2008). Diegan coastal sage scrub is a native plant community composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species. Diegan coastal sage scrub is characterized by subshrubs with relatively shallow root systems and open canopies. On site, there is approximately 21.43 acres of Diegan coastal sage scrub which is composed primarily of four shrub species: black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*).

Methods

The survey followed the most current protocol established by the U.S. Fish and Wildlife Service, *Coastal California Gnatcatcher* (*Polioptila californica californica*) *Presence/Absence Survey Protocol* (July 28, 1997).

Suitable habitat within the project boundary was surveyed three times for CAGN and included all Diegan coastal sage scrub and southern mixed chaparral vegetation occurring within the site boundary. An aerial map of the site (scale 1 inch=200 feet) was used for the survey to record CAGN locations. Weather conditions during surveys are provided in Table 1. Binoculars (10x50) were used to aid in detecting and identifying bird species. Taped CAGN vocalizations were played frequently in order to elicit a response from the species. The tape was played approximately every 50–100 feet within suitable habitat. If CAGN were detected, playing of the tape would have ceased in order to avoid harassment.

All focused CAGN surveys were conducted by Dudek biologist Paul Lemons (Recover Permit # TE051248). The survey method consisted of slowly walking a systematic, meandering transect within and adjacent to all suitable habitat (i.e., Diegan coastal sage scrub). This route was arranged to cover all suitable habitat on site. Weather conditions, time of day and season were appropriate for the detection of the species (Table 2).

Table 2. Survey Dates and Conditions: California Gnatcatcher

Date	Hours	Personnel	Conditions
7/23/2018	0720–1030	Paul Lemons	0% cloud cover (cc); 0–5 mile per hour (mph) winds; 71°F–84 Degrees Fahrenheit (°F)
8/1/2018	0600-0920	Paul Lemons	0-10% cc; 0–3 mph winds; 70-82°F
8/8/2018	0700-0940	Paul Lemons	30-0% cc; 1-6 mph winds; 70-75°F

Results

One California gnatcatcher pair was observed on site during the 2018 focused surveys (Figure 2). A total of 30 wildlife species were detected during focused CAGN surveys and are listed in Appendix A.

Please feel free to contact me at 760.479.4238 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,

Paul Lemons
Wildlife Biologist

Att.: Figure 1, Project Location
Figure 2, Biological Resources
Appendix A, Wildlife Species Observed at the Hidden Canyon Site

cc: David Resnick, Jevin Investments, Inc.
Patricia Schuyler, Dudek

References

Atwood, J. L. and J. S. Bolsinger. 1992. Elevational distribution of California gnatcatchers in the United States. J. Field Ornithology 63: 159-168.

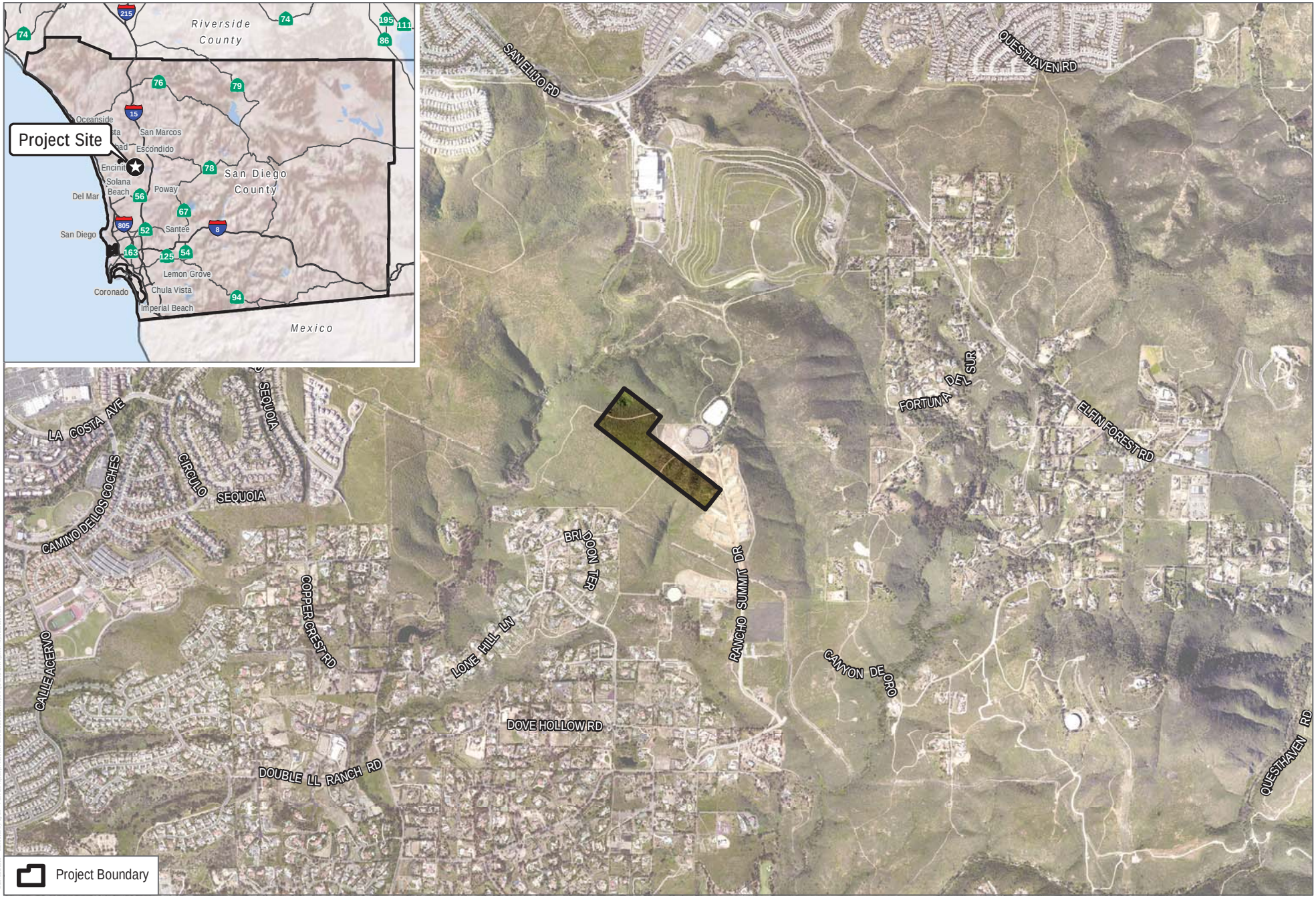
Bontrager, D.R. 1991. Habitat requirements, home range and breeding biology of the California gnatcatcher (*Polioptila californica*) in South Orange County, California. Prepared for Santa Margarita Company, Rancho Santa Margarita, California.

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

Braden, G.T, R.L. McKernan, and S.M. Powell. 1997. Effects of nest parasitism by the brown-headed cowbird on nesting success of the California gnatcatcher. Condor 99: 858-865.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," by R.F. Holland, PhD, October 1986. March 2008.

U.S. Fish and Wildlife Service (USFWS). 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey protocol. Revised July 28. Carlsbad, California. 5 pp.



SOURCE: Shapouri 2018; SANGIS 2017, 2018

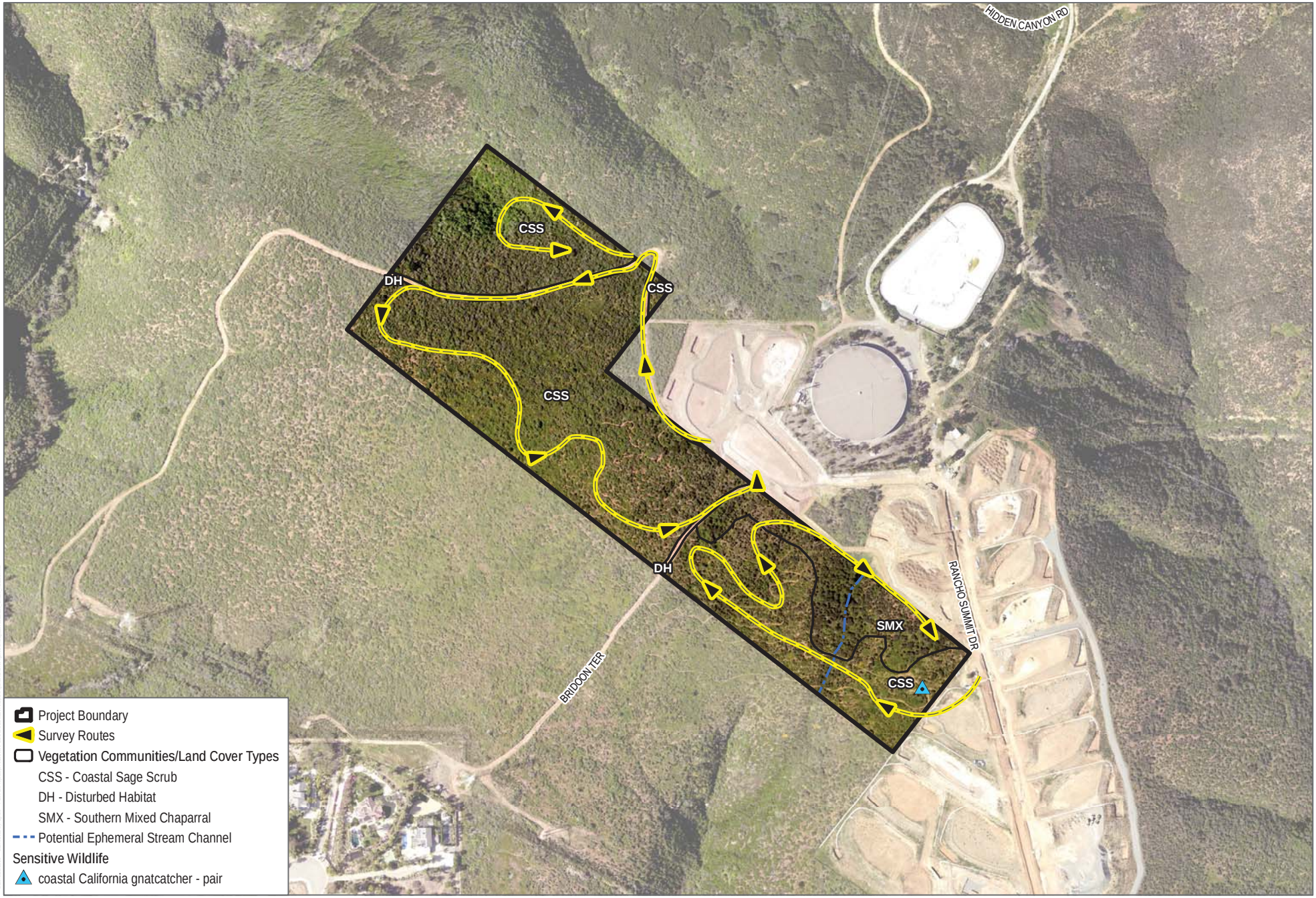
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

2018 Focused California Gnatcatcher Survey Report for the Proposed Hidden Canyon Project, San Diego County, California



SOURCE: Shapouri, 2018; SANGIS 2017, 2018

DUDEK

0 200 400 Feet

FIGURE 2

Biological Resources and Survey Routes

2018 Focused California Gnatcatcher Survey Report for the Proposed Hidden Canyon Project, San Diego County, California

APPENDIX A

Wildlife Species Observed at the Hidden Canyon Site

Bird

Blackbirds, Orioles and Allies

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

Bushtits

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

Emberizines

EMBERIZIDAE—EMBERIZIDS

Melozone crissalis—California towhee

Pipilo maculatus—spotted towhee

Falcons

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

Finches

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

Haemorhous mexicanus—house finch

Flycatchers

TYRANNIDAE—TYRANT FLYCATCHERS

Tyrannus vociferans—Cassin's kingbird

Hawks

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Buteo jamaicensis—red-tailed hawk

Buteo lineatus—red-shouldered hawk

Hummingbirds

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Jays, Magpies and Crows

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—western scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—common raven

New World Quail

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

Old World Warblers and Gnatcatchers

SYLVIIDAE—SYLVIID WARBLERS

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

Pigeons and Doves

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove
* *Streptopelia decaocto*—Eurasian collared-dove

Roadrunners and Cuckoos

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

Swallows

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

Wrens

TROGLODYTIDAE—WRENS

Salpinctes obsoletus—rock wren

Thryomanes bewickii—Bewick's wren

Wrentits

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

Invertebrate

Butterflies

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

Mammal

Canids

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

Hares and Rabbits

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

Ungulates

CERVIDAE—DEERS

Odocoileus hemionus—mule deer

Reptile

Lizards

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

* signifies introduced (non-native) species

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APPENDIX B

Special-Status Wildlife Species with Moderate to High Potential to Occur within the Project Area

APPENDIX B
Special-Status Wildlife Species with Moderate to High Potential to Occur within the Project Area

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
		Reptiles		
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None/Group 2	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	High potential to occur. This subspecies can occur on a variety of soil substrates, in semi-arid habitats with sparse vegetation. Suitable coastal scrub habitat occurs on site, and this species is known to occur throughout the vicinity* from five occurrences in the area all recorded from 2000-2002 (CDFW 2018a).
Crotalus ruber	red diamondback rattlesnake	None/SSC/None/Group 2	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Moderate potential to occur. Suitable coastal scrub and chaparral habitats are present on site, presumably with enough surface cover and rodent burrows to support this species. This species is known to occur within the vicinity* from a recording in 2003 located around 4.5 miles to the southeast of the project site (CDFW 2018a).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/None/Group 2	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	High potential to occur. This species can be found in a wide variety of habitats, and prefers a mosaic of open areas with patches of brush for cover. Suitable coastal scrub habitat with open gaps between the brush occur on site, and this species is known to occur within the vicinity* recorded in 2002 only 0.8 miles to the southeast of the project site (CDFW 2018a).
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC/None/Group 2	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	High potential to occur. The coast patch-nosed snake is found in shrubby coastal Southern California vegetation and requires small mammal burrows. Suitable coastal scrub occurs on site with presumably sufficient burrowing activity to support this subspecies. This subspecies is known to occur within the vicinity* (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
		Birds		
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/None/Group 1	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Moderate potential to nest in eucalyptus trees adjacent to the site (~200 feet away), but not expected to nest within the site due to lack of suitable habitat. Copper's hawks are found along San Diego County's coastal slope in association with stands of trees (Unitt 2004). Cooper's hawk was observed foraging over the site during summer 2018 California gnatcatcher surveys. This species was not mapped due to its low ranking and prevalence within San Diego County. This species is listed as probable or confirmed as nesting within the vicinity* (Unitt 2004).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/None/Group 1	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Observed during Helix 1999 and Dudek 2003 field surveys.
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/None/Group 1	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	High potential to occur. This subspecies prefers habitat that is not overly dense with little leaf litter as this bird often runs along the ground (Unitt 2004). Suitable coastal scrub and chaparral nesting and foraging habitat occur on site, and this species is known to occur in the vicinity* as close as 1.25 miles northeast of the site (CDFW 2018a).
Buteo lineatus	red-shouldered hawk	None/None/None/Group 1	Nests in dense riparian areas, especially with adjacent edges, swamps, marshes, and wet meadows for hunting	Observed foraging during Dudek 2003 field surveys and detected immediately adjacent to the site during summer 2018 California gnatcatcher surveys. This species was not mapped due to its low ranking and prevalence within San Diego County. Not expected to nest within the site due to lack of suitable nesting habitat.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Circus hudsonius (nesting)	northern harrier	None/SSC/None/Group 1	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Moderate potential to forage, not expected to nest on site. Although observed foraging just off site during Dudek 2003 field surveys, suitable wetland nesting habitat does not occur on site.
Elanus leucurus (nesting)	white-tailed kite	None/FP/None/Group 1	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Moderate potential to forage, low potential to nest on site. This species can forage in a variety of habitats, and is dependent on trees for nesting. Suitable foraging habitat is present on site, and suitable nesting habitat exists in the eucalyptus trees adjacent to the existing development on site and within Copper Creek to the west of the site. This species is recorded as possibly breeding to confirmed as nesting within the vicinity* (Unitt 2004).
Lanius ludovicianus (nesting)	loggerhead shrike	BCC/SSC/None/Group 1	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Moderate potential to occur. Loggerhead shrike prefer more open habitat than occurs on site, however suitable nesting habitat in shrubs does occur on site (CDFW 2018a; Unitt 2004). This species was observed 19 years ago during the Helix 1999 field survey, outside the current project site.
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/None/Group 1	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Observed during Dudek 2003 field surveys and one pair was observed during Dudek summer 2018 focused surveys. Additionally, the entire site is located within coastal California gnatcatcher critical habitat (USFWS 2018).
Sialia mexicana	western bluebird	None/None/None/Group 2	Nests in old-growth red fir, mixed-conifer, and lodegpole pine habitats near wet meadows used for foraging	Moderate potential to forage, low potential to nest. This species prefers woodlands with nesting cavity opportunities, and may forage across a range of habitats (Unitt 2004).Trees are largely absent on site except near the existing water tower development, although this species may presumably forage or winter on site.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Tyto alba	barn owl	None/None/None/Group 2	Open habitats including grassland, chaparral, riparian, and other wetlands.	Moderate potential to forage, low potential to nest. This species is increasingly tolerant to urbanization, nesting or roosting in open areas with trees or suitable manmade structures. The site does not contain trees or manmade structures. However, the water tower and eucalyptus trees adjacent to the site may constitute suitable nesting or roosting habitat, and this species may forage in a variety of habitats including the coastal scrub and chaparral on site (Unitt 2004).
		Mammals		
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/None/Group 2	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Moderate potential to occur. The northwestern San Diego pocket mouse tends to prefer rocky habitat adjacent to shrubs, but is found in a wide variety of habitats and substrates (SDNHM 2017). Suitable coastal scrub habitat occurs on site, and this subspecies is known to occur in the vicinity* recorded as recently as 2004 (CDFW 2018a; SDNHM 2017).
Eumops perotis californicus	western mastiff bat	None/SSC/WBWG:H/Group 2	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Moderate potential to forage, low potential to roost. This subspecies is found in a variety of habitats, and prefers to roost in high cliffs, outcropped boulders, or tall buildings as it requires 3m of vertical drop before taking flight (SDNHM 2017). There is no suitable roosting habitat within the project site. Suitable foraging habitat occurs on site, and the water tower adjacent to the project boundary may provide suitable roosting habitat. This subspecies is known to occur within the vicinity* as recently as 2003 (CDFW 2018a; SDNHM 2017).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/None/Group 2	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	High potential to occur. This subspecies prefers grasslands and heterogeneous coastal scrub of varying densities (SDNHM 2017). Suitable coastal scrub habitat is present on site, and this species is

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
				known to occur within the vicinity* (CDFW 2018a; SDNHM 2017).
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None/Group 2	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Moderate potential to occur. This subspecies prefers moderate to dense shrub canopies, and are associated with rock outcrops, rocky cliffs, and slopes (CDFW 2018a). Although rocky areas are absent, suitable sloping coastal scrub occurs on site, and this species is known to occur within the vicinity* (CDFW 2018a).
Odocoileus hemionus	mule deer	None/None//None/Group 2	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Mule deer sign observed during Dudek 2003 field surveys and Dudek summer 2018 California gnatcatcher surveys. This species was not mapped due to its low ranking and prevalence within San Diego County.
Invertebrates				
Apodemia virgulti peninsularis	Peninsular metalmark	None/None/None/Group 1	At species level: sand/dune, shrubland/chaparral, mixed woodland. The primary habitat is coastal sage scrub. Host plant is *Eriogonum fasciculatum* (NatureServe 2018).	Moderate potential to occur. Suitable coastal shrub and chaparral habitat with moderately abundant Eriogonum fasciculatum shrubs are present on site.

Notes:

The federal and state status of species is based on the Special Animals List (April 2018) (CDFW 2018b).

* "Vicinity" refers to species recorded in the USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a). "Region" refers to species recorded within the seven quadrangles surrounding USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a).

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:

SE State listed as Endangered.
ST State listed as Threatened.
SSC California Species of Special Concern
P California Department of Fish and Wildlife Protected and Fully Protected Species
(SD) State-delisted.
WL California Department of Fish and Wildlife Watch List

[1] Other Designations:

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

[2] County of San Diego Designations:

Group 1 County of San Diego Sensitive Animal List
Group 2 County of San Diego Sensitive Animal List

APPENDIX C

Special-Status Wildlife Species with Low Potential or Not Expected to Occur within the Project Area

APPENDIX C
Special-Status Wildlife Species with Low Potential or Not Expected to Occur within the Project Area

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
		Amphibians		
Anaxyrus californicus	arroyo toad	FE/SSC/None/Group 1	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Low potential to occur. Although a potentially suitable stream channel is situated in the canyon to the west of the project site, potential for this species to use the project site as adjacent upland nesting habitat is very low. This drainage known as Copper Creek lies below a steep slope around 350ft below the project site location. This species has not been recorded within the vicinity,* although critical habitat occurs within the region* in the Escondido USGS 7.5-minute quadrangle (CDFW 2018a; USFWS 2018).
Batrachoseps major aridus	desert slender salamander	FE/SE/None/Group 1	Barren, palm oasis, desert wash, and desert scrub	Not expected to occur. No suitable desert habitat present.
Ensatina klauberi	large-blotched salamander	None/WL/None/Group 1	Moist and shaded evergreen and deciduous woodlands	Low potential to occur. No suitable woodland habitat occurs on site, and this species is not known to occur within the region* (CDFW 2018a).
Rana draytonii	California red-legged frog	FT/SSC/None/Group 1	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. The site is outside of the species' known geographic range.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL/None/Group 1	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable wetland habitat present.
Spea hammondii	western spadefoot	None/SSC/None/Group 2	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Low potential to occur. No suitable ephemeral wetlands required by this species occur on site. Although this species is known to occur within the vicinity,* recorded in 2003 in a nearby seasonal pond, potential for standing water to pool and persist for weeks within the project site is low (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Taricha torosa (Monterey Co. south only)	California newt	None/SSC/None/Group 2	Wet forests, oak forests, chaparral, and rolling grassland	Not expected to occur. The site is outside of the species' known geographic range.
			Reptiles	
Actinemys marmorata	western pond turtle	None/SSC/None/Group 1	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Low potential to occur. Although a potentially suitable drainage is situated in the canyon to the west of the project site, potential for this species to use the project site as adjacent upland nesting habitat is very low. Copper Creek lies below a steep slope around 350ft below the project site location. This species is known to occur within the vicinity* (CDFW 2018a).
Anniella stebbinsi	Southern California legless lizard	None/SSC/None/Group 2	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. Although suitable chaparral and scrub habitat occurs on site, suitable moist soils does not occur on site. This species is not known to occur within the region* (CDFW 2018a).
Arizona elegans occidentalis	California glossy snake	None/SSC/None/None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Low potential to occur. This subspecies can occur in a range of scrub and grassland habitats, of which suitable coastal scrub occurs on site. The majority of soils on site are classified as Exchequer rocky silt loam, and may not be suitably sandy enough for this species (USDA 2017). This subspecies is known to occur within the vicinity* from 2013 and 2014 recordings located approximately 4.5 miles to the southeast of the project site (CDFW 2018a).
Aspidoscelis hyperythra	orange-throated whiptail	None/WL/None/Group 2	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Low potential to occur. This species prefers sandy substrates, which do not occur on site, however suitable coastal scrub and chaparral habitat is present on site. This species is known to occur within the direct vicinity,* with a 1998 recording located only approximately a mile southeast of the project site (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Coleonyx switaki	Switak's banded gecko	None/ST/None/Group 2	Rocklands, especially massive rocks and rock formations at the heads of canyons	Not expected to occur. The site is outside of the species' known geographic range and there are no suitable large rock formations present on site.
Coleonyx variegatus abbotti	San Diego banded gecko	None/SSC/None/Group 1	Rocky areas within coastal scrub and chaparral	Low potential to occur. Although suitable coastal scrub and chaparral habitat occurs on site, this subspecies preferred microhabitat of rocky outcrops does not occur on site. This subspecies is not known to occur within the region* (CDFW 2018a).
Diadophis punctatus similis	San Diego ringneck snake	None/None/None/Group 2	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Low potential to occur. This subspecies prefers areas with leaf litter or herbaceous vegetation in moist habitats, of which does not occur on site. This species is not known to occur within the vicinity* (CDFW 2018a).
Lampropeltis zonata (pulchra)	California mountain kingsnake (San Diego population)	None/WL/None/Group 2	Habitat generalist found in habitats including conifer forest, oak–pine woodlands, riparian woodland, chaparral, manzanita, and coastal scrub	Not expected to occur. The site is outside of the species' known geographic range.
Lichanura trivirgata	rosy boa	None/None/None/Group 2	Desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes, and mountains	Low potential to occur. Suitable chaparral habitat occurs on site with coastal canyons and hills surrounding the project area. The vegetation on site however may not be dense enough to support this species as it prefers moderate to dense vegetative cover with rocky areas for refuge (CDFW 1990).
Phrynosoma mcallii	flat-tailed horned lizard	None/SSC/None/Group 1	Desert washes and flats with sparse low-diversity vegetation cover and sandy soils	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable desert vegetation present.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/None/Group 2	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Low potential to occur. Although Copper Creek is only around 0.5 miles west of the site, it is 350ft below the grade of the project area, suggesting that suitable open habitat in close enough proximity to streams or other wetlands does not occur on site. This subspecies is not known to occur within the vicinity* (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Sauromalus ater	common chuckwalla	None/None/None/Group 2	Rock-dwelling, sheltering in rock crevices or under rocks; inhabits rocky flats and hillsides in the Mojave and Colorado Deserts; found in creosote bush habitats; sea level to 1,800 meters (5,900 feet) above mean sea level	Not expected to occur. No suitable desert habitat present.
Sceloporus graciosus vandenburgianus	southern sagebrush lizard	None/None/None/Group 2	Montane chaparral, hardwood and conifer forest, juniper, coastal scrub	Low potential to occur. Suitable scrubland and chaparral habitat occurs on site, as well scattered, open brush of which this subspecies prefers. However, this subspecies more commonly occurs in the Transverse and Peninsular mountains of southern California and is unlikely to be found on site so far from these ranges (Nafis, 2018).
Thamnophis hammondii	two-striped gartersnake	None/SSC/None/Group 1	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Low potential to occur. Although potentially suitable stream habitat may occur to the west of the project site in Copper Creek, suitable wetland habitat does not occur on site. This species is known to occur within the vicinity* along the San Marcos Creek, however has not been recorded in the nearby Copper Creek (CDFW 2018a).
Thamnophis sirtalis ssp. (Coastal plain from Ventura Co. to San Diego Co., from sea level to about 850 m.)	south coast garter snake	None/SSC/None/Group 2	Marsh and upland habitats near permanent water and riparian vegetation	Low potential to occur. Suitable marsh or upland habitat in close proximity to standing water and riparian vegetation does not occur on site. This subspecies is not known to occur within the vicinity* (CDFW 2018a).
Uma notata	Colorado Desert fringe-toed lizard	None/SSC/None/Group 1	Wind-blown sand dunes, dry lakebeds, sandy beaches, riverbanks, desert washes, and sparse desert scrub	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
		Birds		
Accipiter striatus (nesting)	sharp-shinned hawk	None/WL/None/Group 1	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats	Low potential to nest on site. This species prefers riparian habitats, and is not known to nest in San Diego County past 1933. Sharp-shinned hawks are present across the County in winter and during migration however, and could presumably utilize the site for foraging (Unitt, 2004).
Aechmophorus occidentalis	western grebe	None/None/None/Group 1	Winters in sheltered bays or estuaries on the coast and on large freshwater lakes, rarely on rivers.	Not expected to occur. No suitable estuarine or lacustrine habitat present.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/PSE, SSC/None/Group 1	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable freshwater wetland vegetation nesting habitat or foraging habitat present.
Ammodramus savannarum (nesting)	grasshopper sparrow	None/SSC/None/Group 1	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Low potential to occur. Although this species is known to occur within the region,* it is strongly associated with native grassland habitat, which is not present on site. (Unitt, 2004). This species was observed on site 19 years ago during Helix 1999 field surveys, however this was likely due to a more open and disturbed nature of habitat after a fire burned the site in 1996.
Anas strepera	gadwall	None/None/None/Group 2	Interior valleys, wetlands, ponds, and streams. Feeds and rests in freshwater lacustrine and emergent habitats, and to a lesser extent, estuarine and saline emergent habitats, and nests in nearby herbaceous and cropland habitats. Common in Central Valley and less common in Coast Range foothills of central and Southern California. Locally common in Imperial Valley and along Colorado River, October to March. Breeds on northeastern plateau and east of Sierra Nevada.	Not expected to occur. No suitable wetland habitat present.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Anser caerulescens	snow goose	None/None/None/Group 2	Fresh emergent wetlands, adjacent lacustrine waters, and nearby wet croplands, pastures, meadows, and grasslands. Occasionally found in saline (brackish) emergent wetlands and adjacent estuarine waters. Found primarily in Central Valley; less common southward in the interior but abundant in Imperial Valley and locally common along Colorado River. Found regularly only in Southern California along Coast Ranges and immediate coast from mid-November to February.	Not expected to occur. No suitable wetland habitat present.
Antigone canadensis canadensis (wintering)	lesser sandhill crane	None/SSC/None/Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. No suitable grassland, agricultural, or wetland habitat present.
Antigone canadensis tabida (nesting & wintering)	greater sandhill crane	None/ST, FP/None/Group 2	Winter foraging in cropland, grazed and mowed grassland, pasture, alfalfa fields, and shallow wetlands; roosting sites are flooded and support several inches of water	Not expected to occur. No suitable grassland, agricultural, or wetland habitat present.
Aquila chrysaetos (nesting & wintering)	golden eagle	BCC/FP, WL/None/Group 1	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Low potential to occur. In San Diego County, Golden eagles most commonly nest on cliff ledges and less commonly in trees perched on steep slopes, both of which do not occur on site. A nesting pair of Golden Eagles has been confirmed between 1997 and 2001 in the nearby Lake Hodges area. This species may presumably use the coastal scrub or chaparral on site as foraging habitat, but prefers large open swaths of land far from urban development, whereas this site is bordered by homes to the north, south, and further west (Unitt, 2004).
Ardea herodias (nesting colony)	great blue heron	None/None/None/Group 2	Nests in large trees or snags; forages in wetlands, water bodies, watercourses, and opportunistically in uplands, including pasture and croplands	Not expected to occur. Suitable large tree nesting habitat or wetland, pasture, or cropland foraging habitat does not occur on site. This species is only known to nest far west of the site, near coastal marshes or estuaries (Unitt, 2004).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Asio flammeus (nesting)	short-eared owl	None/SSC/None/Group 2	Grassland, prairies, dunes, meadows, irrigated lands, and saline and freshwater emergent wetlands	Not expected to occur. No suitable habitat present.
Asio otus (nesting)	long-eared owl	None/SSC/None/Group 1	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	Not expected to occur. No suitable habitat present.
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC/None/Group 1	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur. The burrowing owl prefers open, flat ground and is dependent upon small mammal burrows. Suitable open habitat does not occur on site, and this species is not known to occur or breed within the vicinity* (CDFW 2018a; Unitt 2004).
Aythya americana (nesting)	redhead	None/SSC/None/Group 2	Nests in deep (>3 ft) permanent or semi-permanent wetlands of at least 1 acre; 75% open water; emergent tules, Scirpus spp., and Typha spp. 3 feet in height; winters in coastal estuaries and large, deep ponds, lakes, and reservoirs of the interior	Not expected to occur. No suitable wetland habitat present.
Branta canadensis	Canada goose	None/None/None/Group 2	Lakes, rivers, ponds, and other bodies of water; yards, park lawns, and agricultural fields	Not expected to occur. No suitable wetland or agricultural habitat present.
Bucephala islandica (nesting)	Barrow's goldeneye	None/SSC/None/Group 2	Winters in lagoons, bays, and estuaries in coastal areas, and riverine waters, lakes, and reservoirs in the interior	Not expected to occur. No suitable wetland habitat present.
Buteo regalis (wintering)	ferruginous hawk	BCC/WL/None/Group 1	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. This species is an uncommon winter migrant to San Diego County, and prefers large tracts of grassland habitat which does not occur on or near the site (Unitt 2004).
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/None/Group 1	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. No woodland, grassland, riparian, or agricultural habitat present.

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Butorides virescens	green heron	None/None/None/Group 2	Nests and roosts in valley foothill and desert riparian habitats; feeds in fresh emergent wetland, lacustrine, slow-moving riverine habitats. Resident in foothills and lowlands throughout California; common August to March in southern coastal ranges, in summer along the Colorado River, and found all year at the Salton Sea.	Low potential to occur. The green heron is known to nest in the vicinity,* and Copper Creek to the west of the site may presumably offer suitable nesting habitat, however nesting habitat is not present on site and this species is unlikely to utilize coastal scrub and chaparral habitats (Unitt 2004).
Campylorhynchus brunneicapillus sandiegensis (San Diego & Orange Counties only)	coastal cactus wren	BCC/SSC/None/Group 1	Southern cactus scrub patches	Low potential to occur. Suitable cactus scrub habitat does not occur on site, and although this species has been observed from a 1983 recording within vicinity,* the only other two occurrences within the vicinity* are considered extirpated (CDFW 2018a).
Cathartes aura	turkey vulture	None/None/None/Group 1	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting, and resting throughout most of California during breeding season	Low potential to occur. Suitable foraging grassland or agricultural habitat does not occur on site, and this species is not known to nest within the vicinity* (SDNHM 2017). This species was observed during Helix 1999 field surveys, however this was likely due to a more open and disturbed nature of habitat after a fire burned the site in 1996. Possible perch/resting trees occur immediately adjacent to the site.
Cerorhinca monocerata (nesting colony)	rhinoceros auklet	None/WL/None/Group 2	Marine pelagic and subtidal habitats	Not expected to occur. The site is outside of the species' known geographic range.
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/None/Group 1	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. Suitable sparsely vegetated flats near bodies of water does not occur on site, and this species only recording in the vicinity* is located at San Elijo Lagoon, far removed from the project site in distance and habitat type (CDFW 2018a).
Charadrius montanus (wintering)	mountain plover	BCC/SSC/None/Group 2	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Chlidonias niger	black tern	None/SSC/None/Group 2	Freshwater marsh with emergent vegetation; in	Not expected to occur. This species nests in inland

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
(nesting colony)			the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	marshes of the Central Valley and migrates by way of the Salton Sea very rarely occurring along the southern California coast (Unitt 2004).
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/None/Group 1	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable riparian vegetation present.
Contopus cooperi (nesting)	olive-sided flycatcher	BCC/SSC/None/Group 2	Nests in mixed-conifer, montane hardwood–conifer, Douglas-fir, redwood, red fir, and lodgepole pine habitats; usually close to water	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Cypseloides niger (nesting)	black swift	BCC/SSC/None/Group 2	Nests in moist crevices, caves, and cliffs behind or adjacent to waterfalls in deep canyons; forages over a wide range of habitats	Low potential to occur. Nesting habitat does not occur on site, and spring migration the species mainly occurs only along a narrow coastal strip or near Palomar Mountain (Unitt 2004).
Dendrocygna bicolor (nesting)	fulvous whistling-duck	None/SSC/None/Group 2	Nests in freshwater wetlands, especially shallow impoundments managed for rice production and temporarily flooded grasslands; also nests in pastures, haylands, and small grain fields adjacent to rice fields	Not expected to occur. No suitable wetland or agricultural habitat present.
Egretta rufescens	reddish egret	None/None/None/Group 2	Freshwater marsh with emergent vegetation; in the Central Valley primarily nests and forages in rice fields and other flooded agricultural fields with weeds and other residual aquatic vegetation	Not expected to occur. No suitable vegetation present.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/None/Group 1	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable riparian vegetation present.
Eremophila alpestris actia	California horned lark	None/WL/None/Group 2	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Low potential to occur. No suitable grassland, agricultural land, or beach habitat occur on site. This species is not known to occur within the vicinity* (CDFW 2018a). This species was, however, observed during Helix 1999 field surveys. This was likely due to a more disturbed nature of habitat after a fire burned the site in 1996.

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Falco columbarius (wintering)	merlin	None/WL/None/Group 2	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	Not expected to occur. No suitable foraging habitat present.
Falco mexicanus (nesting)	prairie falcon	BCC/WL/None/Group 1	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to nest on site. Suitable nesting habitat does not occur on site. This species is more closely tied to the foraging habitat of grasslands of the coastal slope and the desert areas of San Diego County, and is not known to occur within the vicinity* during winter or migration (SDNHM 2017).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/SDL, FP/None/Group 1	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to nest on site. Suitable nesting or foraging habitat does not occur on site, and during winter this species is most commonly observed near the coast, or inland within range of a large body of water, which is not present on site (Unitt 2004).
Fratercula cirrhata (nesting colony)	tufted puffin	None/SSC/None/Group 2	Nests on offshore rocks and islands free of mammalian predators, either in earthen burrows or crevices on steep rocky slopes	Not expected to occur. No suitable offshore island or rock habitat present.
Gavia immer (nesting)	common loon	None/SSC/None/Group 2	Extirpated as a breeder from California; winters in coastal waters such as bays, channels, coves, and inlets; also winters inland at large, deep lakes and reservoirs	Not expected to occur. No suitable wetland habitat present.
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FDL, BCC/SE, FP/None/Group 1	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. No suitable wetland habitat present.
Icteria virens (nesting)	yellow-breasted chat	None/SSC/None/Group 1	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to nest on site. Suitable nesting habitat does not occur on site. The yellow-breasted chat is closely tied to riparian vegetation or dense brush in close proximity to watercourses. Riparian vegetation does not occur on site, and the only recording within the vicinity* occurs in Escondido Creek to the southeast of the project site (CDFW 2018a).

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Ixobrychus exilis (nesting)	least bittern	BCC/SSC/None/Group 2	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable marsh habitat present.
Junco hyemalis caniceps (nesting)	gray-headed junco	None/WL/None/Group 2	Nests and forages in pine and juniper–pine forests	Not expected to occur. No suitable forest habitat present.
Larus californicus (nesting colony)	California gull	None/WL/None/Group 2	Nests in alkali and freshwater lacustrine habitats; abundant in coastal and interior lowlands during non-nesting period	Not expected to occur. No suitable lacustrine nesting habitat present.
Laterallus jamaicensis coturniculus	California black rail	BCC/ST, FP/None/Group 2	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. No suitable marsh, meadow, or flooded habitat present on site.
Leucophaeus atricilla (nesting colony)	laughing gull	None/WL/None/Group 2	Coastal saltmarsh, bays, and estuaries	Not expected to occur. No suitable vegetation present.
Melanerpes lewis (nesting)	Lewis's woodpecker	BCC/None/None/Group 1	Winters in open oak woodland and savanna; nests in open ponderosa pine forest and logged or burned pine forest	Not expected to occur. The site is outside of the species' known geographic range.
Mycteria americana	wood stork	None/SSC/None/Group 2	Nests in freshwater and marine-estuarine forested habitats; forages in natural and artificial wetlands; roosts in trees, usually over water	Not expected to occur. No suitable wetland habitat present.
Numenius americanus (nesting)	long-billed curlew	BCC/WL/None/Group 2	Nests in grazed, mixed grass, and short-grass prairies; localized nesting along the California coast; winters and forages in coastal estuaries, mudflats, open grassland, and cropland	Not expected to occur. No suitable estuary, grassland, or agricultural habitat present.
Oceanodroma furcata (nesting colony)	fork-tailed storm-petrel	None/SSC/None/Group 2	Offshore islands with restricted access and free of mammalian predators; nesting habitat varies across islands from natural crevices in talus slopes to earthen burrows dug by themselves or other species	Not expected to occur. No suitable island habitat present.

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Oceanodroma homochroa (nesting colony)	ashy storm-petrel	BCC/SSC/None/Group 2	Nests on rocky offshore islands on talus slopes, rock walls, sea caves, cliffs, and under piles of driftwood; they do not excavate their own nesting burrows	Not expected to occur. No suitable island habitat present.
Oceanodroma melania (nesting colony)	black storm-petrel	None/SSC/None/Group 2	Nests on small rocky islands or talus slopes of larger islands free of mammalian predators; occurs on land only to breed	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable island habitat present.
Oreoryx pictus	mountain quail	None/None/None/Group 2	Dense montane chaparral and brushy areas within coniferous forest, pinyon–juniper–yucca associations; uses shrubs, brush stands, and trees on steep slopes for cover	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable montane chaparral or forest habitat present.
Oreothlypis luciae (nesting)	Lucy's warbler	BCC/SSC/None/Group 1	Nests and forages in desert wash and desert riparian habitats, especially dominated by mesquite, but also in other shrubs and tamarisk	Not expected to occur. The site is outside of the species' known geographic range.
Pandion haliaetus (nesting)	osprey	None/WL/None/Group 1	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to nest on site. Suitable nesting habitat does not occur on site. . This species is associated with large bodies of water, foraging for fish and nesting in close proximity to open water (Unitt 2004). The closest large body of water is Lake San Marcos approximately 2 miles to the north, as well as the Olivenhain Reservoir and Lake Hodges approximately 4 miles east of the site.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/None/Group 1	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to occur. No suitable saltmarsh habitat present on site.
Passerculus sandwichensis rostratus (wintering)	large-billed savannah sparrow	None/SSC/None/Group 2	Nests and forages in open, low saltmarsh vegetation, including low halophytic scrub	Not expected to occur. No suitable saltmarsh habitat present on site.

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Pelecanus erythrorhynchos (nesting colony)	American white pelican	None/SSC/None/Group 2	Nests colonially on sandy, earthen, or rocky substrates on isolated islands in freshwater lakes; minimal disturbance from predators; access to foraging areas on inland marshes, lakes, or rivers; winters on shallow coastal bays, inlets, and estuaries	Not expected to occur. No suitable lacustrine, marsh, riverine, or estuarine habitat present.
Pelecanus occidentalis californicus (nesting colonies & communal roosts)	California brown pelican	FDL/SDL, FP/None/Group 2	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. The site is outside of the species' known geographic range.
Phalacrocorax auritus (nesting colony)	double-crested cormorant	None/WL/None/Group 2	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Not expected to nest on site. Suitable nesting habitat does not occur on site. This species is also unlikely to winter on site as it is associated with bodies of water, but may presumably migrate over the area (Unitt 2004).
Piranga rubra (nesting)	summer tanager	None/SSC/None/Group 2	Nests and forages in mature desert riparian habitats dominated by cottonwoods and willows	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable riparian vegetation present.
Plegadis chihi (nesting colony)	white-faced ibis	None/WL/None/Group 1	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. The site is outside of the species' known geographic range.
Progne subis (nesting)	purple martin	None/SSC/None/Group 1	Nests and forages in woodland habitats including riparian, coniferous, and valley foothill and montane woodlands; in the Sacramento region often nests in weep holes under elevated freeways	Not expected to occur. The site is outside of the species' known geographic range.
Pyrocephalus rubinus (nesting)	vermilion flycatcher	None/SSC/None/Group 1	Nests in riparian woodlands, riparian scrub, and freshwater marshes; typical desert riparian with cottonwood, willow, mesquite adjacent to irrigated fields, ditches, or pastures	Not expected to occur. The site is outside of the species' known geographic range.

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Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/None/Group 1	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable coastal wetland habitat present on site.
Riparia riparia (nesting)	bank swallow	None/ST/None/Group 1	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to nest on site. . Suitable vertical sandy nesting habitat is not present on site, and wintering or migrating bank swallows are very rare within the county (Unitt 2004). This species is not known to occur within the vicinity* and is considered extirpated within the region* (CDFW 2018a).
Rynchops niger (nesting colony)	black skimmer	BCC/SSC/None/Group 1	Nests on barrier beaches, shell banks, spoil islands, and saltmarsh; forages over open water; roosts on sandy beaches and gravel bars	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable beach or marsh habitat present.
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/None/Group 2	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Low potential to occur. Yellow warbler breeding habitat is closely tied to riparian corridors, of which do not occur on site, although suitable habitat may exist to the west within Copper Creek. This species has not been recorded within the vicinity* (CDFW 2018a).
Sternula antillarum browni (nesting colony)	California least tern	FE/SE, FP/None/Group 1	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable estuary or lagoon habitat present on site.
Strix occidentalis occidentalis	California spotted owl	BCC/SSC/None/Group 1	Nests and forages in dense, old-growth, multi-layered mixed-conifer, redwood, and Douglas-fir habitats	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Synthliboramphus scrippsi (nesting colony)	Scripps's murrelet	FC, BCC/ST/None/Group 2	Nests on steep sea slopes, canyons, and cliffs with sparse vegetation	Not expected to occur. No suitable coastal habitat present.
Thalasseus elegans (nesting colony)	elegant tern	None/WL/None/Group 1	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. The site is outside of the species' known geographic range.
Toxostoma bendirei	Bendire's thrasher	BCC/SSC/None/Group 2	Nests and forages in desert succulent shrub and Joshua tree habitat in Mojave Desert; nests in yucca, cholla, and other thorny scrubs or small trees	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Toxostoma crissale	crissal thrasher	None/SSC/None/Group 1	Nests and forages in desert riparian and desert wash; dense thickets of sagebrush and other shrubs such as mesquite, iron catclaw acacia, and arrowweed willow within juniper and pinyon–juniper woodlands	Not expected to occur. The site is outside of the species' known geographic range.
Toxostoma lecontei	LeConte's thrasher	BCC/SSC/None/Group 2	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/None/Group 1	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to nest on site. Suitable nesting habitat does not occur on site. .Least Bell's vireo nests within riparian woodland and riparian scrub, which do not occur on site, although suitable habitat may exist to the west within Copper Creek. This species has been recorded within the vicinity* at Escondido Creek to the south (CDFW 2018a).
Vireo vicinior (nesting)	gray vireo	BCC/SSC/None/Group 1	Nests and forages in pinyon–juniper woodland, oak, and chamise and redshank chaparral	Not expected to occur. The site is outside of the species' known geographic range.
		Fish		
Cyprinodon macularius	desert pupfish	FE/SE/None/Group 2	Desert springs, small streams, and marshes below 1,515 meters (5,000 feet) above mean sea level; tolerates high salinities, high water temperatures, and low dissolved-oxygen concentrations	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Eucyclogobius newberryi	tidewater goby	FE/SSC/None/Group 1	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/SE, FP/None/Group 2	Slow-moving and backwater areas	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Gila orcuttii	arroyo chub	None/SSC/None/Group 1	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Oncorhynchus mykiss irideus	southern steelhead - southern California DPS	FE/None/None/Group 1	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Oncorhynchus mykiss irideus	steelhead - central California coast DPS	FE/None/None/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	FE/None/None/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Oncorhynchus mykiss irideus	steelhead - northern California DPS	FE/None/None/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Oncorhynchus mykiss irideus	steelhead - south/central California coast DPS	FE/None/None/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Oncorhynchus mykiss irideus	summer-run steelhead trout	FE/None/None/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable aquatic habitat present.
Mammals				
Antrozous pallidus	pallid bat	None/SSC/WBWG:H/Group 2	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur. Pallid bats may occupy a wide variety of habitats, although are most commonly associated with arid open scrub or grassland with gentle terrain and rocky outcrops (SDNHM 2017). Suitable arid scrub habitat occurs on site, however suitable rocky outcrop roosting habitat does not occur on site, and the only two records within the region* date back to 1968 and 1949 (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Bassariscus astutus	ringtail	None/FP/None/Group 2	Mixed forests and shrublands near rocky areas or riparian habitats; forages near water and is seldom found more than 1 kilometer (0.62 mile) from a water source	Low potential to occur. Although suitable coastal scrub habitat occurs on site and water is found in Copper Creek to the west of the site, this species has only been recorded as west at Mt Woodson and is most common on the steep rocky eastern slopes of the Counties' mountains (SDNHM 2017).
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None/Group 2	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Low potential to occur. The Dulzura pocket mouse appears to prefer gravelly soils with high sun exposure, most commonly found on the periphery of chaparral habitat (SDNHM 2017). There is limited chaparral habitat present and the site does not contain gravelly soils or high levels of disturbance. This subspecies hasn't been recorded within the vicinity since 1993 (CDFW 2018a; SDNHM 2017).
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/SSC/None/Group 2	Desert wash, desert scrub, desert succulent scrub, and pinyon–juniper woodland	Low potential to occur. This subspecies is occurs within the desert habitats east of the rocky slopes of the Volcan and Laguna Mountain (SDNHM 2017). Suitable desert scrub habitat is not present on site (CDFW 2018a).
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/WBWG:M/Group 2	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Low potential to occur. Within San Diego County, this species is most commonly found in arid habitats within urban or suburban areas associated with ornamental plants that offer abundant nectar as a food source (SDNHM 2017). Roosting habitat may exist in the historic early 1900's Copper Creek Mine located in Copper Creek that runs adjacent to the project area to the west, although is unlikely to be suitable due to disturbance from hikers. Although suitable arid scrub habitat occurs on site in close proximity to suburban areas, this species is not known to occur within the vicinity,* with only two occurrences recorded the region* most recently in 1981 (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC/WBWG:H/Group 2	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Low potential to occur. Townsend's big eared bat is highly dependent on quality roosting habitat, most commonly roosting in caves and more rarely in cave-like man-made structures (SDNHM 2017). Roosting habitat may exist in the historic early 1900's Copper Creek Mine located in Copper Creek that runs adjacent to the project area to the west, although is unlikely to be suitable due to human hiking disturbance in the area. Additionally, this species is not known to occur within the vicinity* (CDFW 2018a).
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/None/Group 1	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Low potential to occur. This species is mainly only found within open grassland or sparse coastal sage scrub habitats (SDNHM 2017). Open grassland habitat and sparse coastal sage scrub does not occur on site, the coastal scrub habitat on site is mixed with chaparral which is denser shrub community. This species is not known to occur within the vicinity* (CDFW 2018a).
Euderma maculatum	spotted bat	None/SSC/WBWG:H/Group 2	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Not expected to occur. No suitable desert, grassland, or forest habitat present.
Lasiurus blossevillii	western red bat	None/SSC/WBWG:H/Group 2	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Low potential to occur. The western red bat is most commonly found in wooded areas associated with riparian trees (SDNHM 2017). Suitable riparian woodland may occur within Copper Creek adjacent to the site, although this species is not known to occur within the vicinity* (CDFW 2018a).
Lasiurus cinereus	hoary bat	None/None/WBWG:M/None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Low potential to occur. The hoary bat is associated with riparian trees such as sycamores or cottonwoods, but can also be found to roost in ornamental trees as well (SDNHM 2017). Suitable riparian habitat may occur within Copper Creek adjacent to the site, although this species is not known to occur within the vicinity* (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Lasiurus xanthinus	western yellow bat	None/SSC/WBWG:H/None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Low potential to occur. The western yellow bat is strongly associated with fan palms for roosting habitat (SDNHM 2017). Fan palms do not occur on site, and this species is not known to occur within the vicinity* (CDFW 2018a).
Leptonycteris yerbabuenae	lesser long-nosed bat	FE/None/WBWG:H/None	Sonoran desert scrub, semi-desert grasslands, lower oak woodlands	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Macrotus californicus	Californian leaf-nosed bat	None/SSC/None/Group 2	Riparian woodlands, desert wash, desert scrub; roosts in mines and caves, occasionally buildings	Not expected to occur. The site is outside of the species' known geographic range.
Myotis ciliolabrum	western small-footed myotis	None/None//None/Group 2	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	Low potential to occur. This species is strongly associated with chaparral habitat, and commonly forages within habitat of riparian zones within chaparral which occurs to the west of the site in Copper Creek (SDNHM 2017). However, this species is not known to occur within the vicinity,* and is considered extirpated from the coastal plains where it was rare historically (CDFW 2018a; SDNHM 2017).
Myotis evotis	long-eared myotis	None/None//None/Group 2	Brush, woodland, and forest habitats from sea level to 9,000 feet above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Low potential to occur. This species may occur in chaparral habitat, but more commonly is found in pine forest or woodland habitat (SDNHM 2017). This species is not known to occur within the vicinity* (CDFW 2018a).
Myotis thysanodes	fringed myotis	None/None//None/Group 2	Drier woodlands (oak, pinyon–juniper, and ponderosa pine), desert scrub, mesic coniferous forest, grassland, and sage–grass steppe; sea level to 9,350 feet; roosts in buildings, mines, rocks, cliff faces, bridges, and large, decadent trees and snags	Low potential to occur. This species seems to only be found within the Counties' mountains or desert transitional zone within oak woodland or coniferous forest habitat (SDNHM 2017). Suitable habitat is not present on site and this species is not known to occur within the region* (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Myotis volans	long-legged myotis	None/None/None/Group 2	Primarily coniferous forests, but also seasonally in riparian and desert habitats; roosts in crevices in cliffs, caves, mines, buildings, exfoliating tree bark, and snags	Low potential to occur. The long-legged myotis is rare within San Diego County, with records only from the mountains and desert transitional zone (SDNHM 2017). Suitable habitat is not present on site and this species is not known to occur within the region* (CDFW 2018a).
Myotis yumanensis	Yuma myotis	None/None/WBWG:L/Group 2	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Low potential to occur. Yuma myotis occurs in a wide variety of habitats, but is usually associated with the presence of surface water (SDNHM 2017). Suitable coastal scrub habitat occurs on site and suitable standing water habitat occurs along Copper Creek that runs adjacent to the project site to the west. The historic 1900s era Copper Creek Mine occurs along this drainage, could presumably serve as suitable roosting habitat. This species is known to occur within the vicinity* (CDFW 2018a).
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC/None/Group 2	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Low potential to occur. The pocketed free-tailed bat is most closely linked to suitable vertical or rocky cliff roosting habitat (SDNHM 2017). Suitable vertical or rocky outcrop and cliff roosting habitat does not occur on site. Desert habitats are also absent on site. This species is only known from one occurrence within the vicinity* recorded in 2003 (CDFW 2018a).
Nyctinomops macrotis	big free-tailed bat	None/SSC/WBWG:M/Group 2	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable rocky habitat present.
Onychomys torridus ramona	southern grasshopper mouse	None/SSC//None/Group 2	Grassland and sparse coastal scrub	Low potential to occur. This subspecies prefers desert areas, although may be found in coastal scrub habitat with gentle slopes (SDNHM 2017). This species is not known to occur within the region* with the westernmost occurrence located in San Pasqual Valley recorded in 1891 (CDFW 2018a; SDNHM 2017).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP//None/Group 1	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. The site is outside of the species' known geographic range.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC//None/Group 2	Lower-elevation grassland, alluvial sage scrub, and coastal scrub	Not expected to occur. The site is outside of the species' known geographic range.
Perognathus longimembris internationalis	Jacumba pocket mouse	None/SSC//None/Group 2	Desert scrub and sparse sage scrub in areas with fine sandy soils	Low potential to occur. This species only occurs on the desert side of the mountains within San Diego County (SDNHM 2017). Suitable desert habitat does not occur on site, and this species is not known to occur within the region* (CDFW 2018a).
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None//None/Group 1	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. Suitable coastal areas with sandy soils do not occur on site, and although this species is known to occur within the vicinity,* this occurrence is from the coastal San Elijo Lagoon area which is far removed in connectivity from the project area (CDFW 2018a).
Puma concolor	cougar	None/None/None/Group 2	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	Low potential to occur. Cougars occur within a wide variety of habitats, however are most abundant far from urban areas wherever mule deer exist with suitable cover for ambushing and stalking prey. Although mule deer sign has been observed on site, this location is surrounded by development to the north, south , and west, and cougars have not been tracked within the area from 2001 to 2013 (SDNHM 2017). This species is rare within the region* (SDNHM 2017).
Taxidea taxus	American badger	None/SSC/None/Group 2	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. This species prefers open areas such as grasslands, meadows, or desert (SDNHM 2017). In addition, this species is not known to occur within the vicinity* (CDFW 2018a).

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Invertebrates				
Ariolimax columbianus stramineus	Palomar banana slug	None/None/None/Group 2	Moist forests; dark, damp habitats, such as under logs or other decomposing material	Not expected to occur. No suitable damp forest habitat present.
Branchinecta lynchi	vernal pool fairy shrimp	FT/None/None/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Low potential to occur. No vernal pool habitat was observed on site, and this species is not known to occur within the vicinity* (CDFW 2018a).
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/None/Group 1	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. No vernal pool habitat was observed on site, although this species is known to occur within the vicinity* (CDFW 2018a).
Brennania belkini	Belkin's dune tabanid fly	None/None/None/Group 2	Inhabits coastal sand dunes of Southern California	Not expected to occur. No suitable dune habitat present.
Callophrys thornei	Thorne's hairstreak	None/None/None/Group 1	Interior cypress woodland dominated by host plant Hesperocyparis forbesii (Tecate cypress)	Low potential to occur. No suitable woodland dominated by Tecate cypress is present on site. This species is not known to occur within the region* (CDFW 2018a).
Cicindela gabbii	western tidal-flat tiger beetle	None/None/None/Group 2	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable estuarine habitat present.
Cicindela hirticollis gravida	sandy beach tiger beetle	None/None/None/Group 2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable wetland habitat present.
Cicindela latesignata latesignata	western beach tiger beetle	None/None/None/Group 2	Mudflats and beaches in coastal Southern California	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable coastal habitat present.
Cicindela senilis frosti	senile tiger beetle	None/None/None/Group 2	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. The site is outside of the species' known geographic range.
Cicindela trifasciata sigmoidea	Mudflat tiger beetle	None/None/None/Group 2	Marshes along coast and edges of marshes and rivers.	Low potential to occur. Suitable coastal marshland or riverine habitat does not occur on site.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Cincindela latesignata obliviosa	Oblivious tiger beetle	None/None/None/Group 2	Inhabited the Southern California coastline, from La Jolla north to the Orange County line. Occupied saline mudflats and moist sandy spots in estuaries of small streams in the lower zone. Has not been observed in 20 years.	Not expected to occur. No suitable coastal estuarine habitat present.
Coelus globosus	globose dune beetle	None/None/None/Group 1	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable dune habitat present.
Danaus plexippus	monarch	None/None/None/Group 2	Wind-protected tree groves with nectar sources and nearby water sources	Low potential to occur. There are few trees present within the project area, and a nearby water source could presumably be located at Copper Creek to the west, however distance to Copper Creek and lack of substantial tree cover make monarch presence unlikely on site. This species is considered possibly extirpated within the vicinity* (CDFW 2018a).
Euphydryas editha quino	quino checkerspot butterfly	FE/None/None/Group 1	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Low potential to occur. This species prefers openings within chaparral and coastal scrub with an abundance of host plants. Suitable coastal scrub and chaparral habitat is present on site, however soils are classified as Exchequer rocky silt loam (USDA 2017) and likely do not support this species and it's host plants as well as clay soils would. This species is not known to occur within the vicinity* or region* (CDFW 2018a). In addition, the project area is located outside of the USFWS survey area (USFWS 2014).
Euphyes vestris harbisoni	Harbison dun skipper	None/None/None/Group 1	Oak riparian drainages and adjacent seeps supporting host plant Carex spissa	Not expected to occur. No suitable oak riparian habitat or Carex spissa present on site.
Helminthoglypta traski coelata	Peninsular Range shoulderband snail	None/None/None/Group 2	Wet habitats	Low potential to occur. Suitable wet habitat does not occur within the project area.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Linderiella occidentalis	California linderiella	None/None/None/Group 1	Cool soft-water vernal pools in grasslands below 1,000 feet above mean sea level	Low potential to occur. No vernal pool or grassland habitat was observed on site, and this species is not known to occur within the region* (CDFW 2018a).
Lycaena hermes	Hermes copper	FC/None/None/Group 1	Mixed woodlands, chaparral, and coastal scrub	Low potential to occur. Suitable mixed chaparral and coastal scrub occurs on site with both this species' host plant, Rhamnus crocea and nectar plant, Eriogonum fasciculatum present in the area. However, original plant surveys conducted in 2003 covered a significantly larger area in addition to the current project site, and Rhamnus crocea has not been observed within the current project boundary. This species is not known to occur within the vicinity* or region* (CDFW 2018a).
Megathymus yuccae harbisoni	coastal giant skipper	None/None/None/Group 2	Coastal dunes, open yucca flats, desert canyons, open woodland, grassland, and old fields. Host plant is Yucca schidigera. Record from eastern San Diego County near Scissors Crossing, Anza-Borrego Desert State Park.	Low potential to occur. Suitable vegetation is not present as Yucca schidigera was not observed on site during Dudek 2003 surveys.
Melitta californica	California mellitid bee	None/None/None/None	Desert regions of southwestern Arizona, southeastern California, and Baja California, Mexico; also collected from Torrey Pines, San Diego County	Not expected to occur. The site is outside of the species' known geographic range.
Panoquina errans	wandering skipper	None/None/None/Group 1	Saltmarsh	Not expected to occur. No suitable saltmarsh habitat present.
Papilio multicauldata	Two-tailed swallowtail	None/None/None/Group 1	Foothill slopes and canyons, moist valleys, streamsides, woodlands, parks, roadsides, and urban settings. Host plants include Fraxinus, Ptelea, and Prunus species (Butterflies and Moths of North America 2016).	Low potential to occur. Foothill slopes and Copper Creek to the west of the site may provide potentially suitable habitat, however no Fraxinus, Ptelea, or Prunus species were observed during Dudek 2003 field surveys.
Phobetus robinsoni	Robinson's rain beetle	None/None/None/Group 2	Known from two locations in Orange County and only known from Scissors Crossing in San Diego County (43 FR 35636 35643).	Low potential to occur. The only known location in San Diego County is located at Scissors Crossing just west of Anza-Borrego Desert State Park, far removed from the project site.

Scientific Name	Common Name	Status: Federal/State/Other[1]/San Diego County[2]	Habitat	Potential to Occur
Plebejus saepiolus hilda	Hilda greenish blue	None/None/None/Group 1	At species level: bogs, stream edges, open fields, meadows, open forests, and roadsides. Host plants include species of Trifolium (Butterflies and Moths of North America 2016).	Low potential to occur. Trifolium albopurpureum was observed during Dudek 2003 field surveys, although otherwise suitable stream, meadow, or forest habitat does not occur on site.
Pseudocopaeodes eunus eunus	alkali skipper	None/None/None/Group 1	Grassy spots on alkali flats; playa/salt flats	Not expected to occur. No suitable alkali flat or playa habitat present.
Pyrgus ruralis lagunae	Laguna Mountains skipper	FE/None/None/Group 1	Restricted to montane meadows of Laguna Mountains and Mount Palomar	Not expected to occur. No suitable vegetation present.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/None/Group 1	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. No vernal pool habitat was observed on site, and this species is not known to occur within the vicinity* (CDFW 2018a).
Trigonoscuta blaisdelli	Blaisdell trigonoscuta weevil	None/None/None/Group 2	*Trigonoscuta* sp.: Coastal, desert, or inland sand dunes; wide variety of plant types used; the larvae feed on the roots and the adults on the leaves.	Not expected to occur. No suitable dune habitat present.
Tryonia imitator	mimic tryonia (=California brackishwater snail)	None/None/None/Group 2	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. There is no suitable coastal lagoon, estuary, or saltmarsh habitat present.

The federal and state status of species is based on the Special Animals List (April 2018) (CDFW 2018b).

* "Vicinity" refers to species recorded in the USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a). "Region" refers to species recorded within the seven quadrangles surrounding USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a).

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:

SE State listed as Endangered.
ST State listed as Threatened.
SSC California Species of Special Concern
P California Department of Fish and Wildlife Protected and Fully Protected Species
(SD) State-delisted.
WL California Department of Fish and Wildlife Watch List

Other Designations[1]:

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

County of San Diego Designations[2]:

Group 1 County of San Diego Sensitive Animal List
Group 2 County of San Diego Sensitive Animal List

REFERENCES

CDFG (California Department of Fish and Game). 1990. California Wildlife Habitat Relationships (CWHR) System. Originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988–1990. California's Wildlife. Vol. 1–3. Sacramento: California Department of Fish and Game.

CDFW (California Department of Fish and Wildlife). 2018a. RareFind, Version 5.2.14. California Natural Diversity Database. Accessed August 2018. http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp.

CDFW. 2018b. Special Animals List. California Natural Diversity Database Periodic Publication. April 2018.

Nafis, G. California Herps – A Guide to the Amphibians and Reptiles of California. August 20, 2018. http://www.californiaherps.com/.

SDNHM (San Diego Natural History Museum). 2017. Edited by Tremor, Scott & Stokes, Drew & Spencer, Wayne & Diffendorfer, Jay & Thomas, Howard & Chivers, Susan & Unit, Phillip. San Diego County Mammal Atlas.

Unitt, P. 2004. San Diego County Bird Atlas. San Diego, California: San Diego Natural History Museum.

USFWS (U.S. Fish and Wildlife Service). 2014. Quino Checkerspot Butterfly Survey Guidelines. Carlsbad, California: USFWS December 15, 2014.

USFWS. 2018. Endangered Species and Critical Habitat. USFWS, Information for Planning and Consultation (IPAC). Accessed August 2018. https://ecos.fws.gov/ipac/.

USDA (U.S. Department of Agriculture). 2017. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed August 2018. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

APPENDIX D

Plant Compendium

APPENDIX D
Plant Compendium

EUDICOTS

VASCULAR SPECIES

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Malosma laurina—laurel sumac
Rhus integrifolia—lemonade berry

APIACEAE—CARROT FAMILY

Apiastrum angustifolium—mock parsley
Daucus pusillus—American wild carrot
* *Foeniculum vulgare*—fennel
Sanicula arguta—sharptooth blacksnakeroot

ASTERACEAE—SUNFLOWER FAMILY

Acourtia microcephala—sacapellote
Artemisia californica—California sagebrush
Artemisia dracunculus—wild tarragon
Baccharis pilularis ssp. *consanguinea*—coyotebrush
Baccharis sarothroides—desertbroom
* *Centaurea melitensis*—Maltese star-thistle
Deinandra fasciculata—clustered tarweed
* *Dittrichia graveolens*—stinkwort
Encelia californica—California brittle bush
Erigeron canadensis—Canadian horseweed
Eriophyllum confertiflorum var. *confertiflorum*—golden-yarrow
* *Glebionis coronaria*—crowndaisy
Hazardia squarrosa var. *grindelioides*—sawtooth bristleweed
Hazardia squarrosa—sawtooth golden bush
* *Hedypnois rhagadioloides*—crete weed
* *Hypochaeris glabra*—smooth cat's ear
Isocoma menziesii var. *vernonioides*—Menzies' goldenbush
* *Lactuca serriola*—prickly lettuce
Logfia filaginoides—California cottonrose
* *Logfia gallica*—narrowleaf cottonrose
Pentachaeta aurea ssp. *aurea*—golden-rayed pentachaeta
Pseudognaphalium biolettii—two-color rabbit-tobacco
Pseudognaphalium californicum—ladies' tobacco
Pseudognaphalium canescens—Wright's cudweed

* *Senecio vulgaris*—old-man-in-the-Spring
* *Sonchus asper* ssp. *asper*—spiny sowthistle
* *Sonchus oleraceus*—common sowthistle
Stephanomeria virgata ssp. *pleurocarpa*—wand wirelettuce
Stylocline gnaphaloides—mountain neststraw
Uropappus lindleyi—Lindley's silverpuffs

BORAGINACEAE—BORAGE FAMILY

Cryptantha intermedia var. *intermedia*—Clearwater cryptantha
Eucrypta chrysanthemifolia var. *chrysanthemifolia*—spotted hideseed
Eucrypta chrysanthemifolia—spotted hideseed
Phacelia cicutaria var. *cicutaria*—caterpillar phacelia
Phacelia cicutaria var. *hispida*—caterpillar phacelia
Phacelia parryi—Parry's phacelia
Pholistoma racemosum—racemed fiestaflower

BRASSICACEAE—MUSTARD FAMILY

* *Brassica napus*—rape
* *Brassica nigra*—black mustard
* *Hirschfeldia incana*—shortpod mustard
Lepidium nitidum—shining pepperweed
* *Sisymbrium orientale*—Indian hedgemustard
Thysanocarpus laciniatus—mountain fringepod

CACTACEAE—CACTUS FAMILY

Opuntia littoralis—coast prickly pear

CAPRIFOLIACEAE—HONEYSUCKLE FAMILY

Lonicera subspicata var. *denudata*—Santa Barbara honeysuckle

CARYOPHYLLACEAE—PINK FAMILY

* *Cerastium glomeratum*—sticky chickweed
Silene antirrhina—sleepy silene
* *Silene gallica*—common catchfly
* *Stellaria media*—common chickweed

CHENOPODIACEAE—GOOSEFOOT FAMILY

* *Chenopodium murale*—nettleleaf goosefoot
* *Salsola tragus*—prickly Russian thistle

CONVOLVULACEAE—MORNING-GLORY FAMILY

Calystegia macrostegia—island false bindweed

CRASSULACEAE—STONECROP FAMILY

Crassula connata—sand pygmyweed

CUCURBITACEAE—GOURD FAMILY

Marah macrocarpa—Cucamonga manroot

ERICACEAE—HEATH FAMILY

Xylococcus bicolor—mission manzanita

FABACEAE—LEGUME FAMILY

Acmispon glaber var. *glaber*—common deerweed
Acmispon strigosus—strigose bird's-foot trefoil
Lathyrus vestitus var. *alefeldii*—Alefeld's pea
Lupinus bicolor—miniature lupine
Lupinus succulentus—hollowleaf annual lupine
* *Melilotus indicus*—annual yellow sweetclover
Trifolium depauperatum var. *truncatum*—balloon sack clover

GERANIACEAE—GERANIUM FAMILY

* *Erodium botrys*—longbeak stork's bill
* *Erodium cicutarium*—redstem stork's bill

GROSSULARIACEAE—GOOSEBERRY FAMILY

Ribes speciosum—fuchsiaflower gooseberry

LAMIACEAE—MINT FAMILY

Salvia mellifera—black sage

LYTHRACEAE—LOOSESTRIFE FAMILY

* *Lythrum hyssopifolia*—hyssop loosestrife

MALVACEAE—MALLOW FAMILY

Malacothamnus fasciculatus—Mendocino bushmallow
Sidalcea sparsifolia—dwarf checkerbloom

MONTIACEAE—MONTIA FAMILY

Calandrinia menziesii—red maids

MYRSINACEAE—MYRSINE FAMILY

* *Lysimachia arvensis*—scarlet pimpernel

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

*Mirabilis laevi*s var. *crassifolia*—California four o'clock

OROBANCHACEAE—BROOM-RAPE FAMILY

Castilleja affinis ssp. *affinis*—coast Indian paintbrush
Castilleja attenuata—attenuate Indian paintbrush
Castilleja exserta—exserted Indian paintbrush

OXALIDACEAE—OXALIS FAMILY

Oxalis californica—California woodsorrel
Oxalis pes-caprae—Bermuda buttercup*

PAPAVERACEAE—POPPY FAMILY

Eschscholzia californica—California poppy
Papaver heterophyllum—windpoppy

PHRYMACEAE—LOPSEED FAMILY

Diplacus aurantiacus—bush monkeyflower
Diplacus puniceus—red bush monkeyflower

PLANTAGINACEAE—PLANTAIN FAMILY

Antirrhinum nuttallianum ssp. *subsessile*—lesser snapdragon
Plantago ovata—desert Indianwheat

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *fasciculatum*—California buckwheat
Eriogonum fasciculatum var. *foliolosum*—California buckwheat
Pterostegia drymarioides—woodland pterostegia

PRIMULACEAE—PRIMROSE FAMILY

Primula clevelandii var. *clevelandii*—no common name

RHAMNACEAE—BUCKTHORN FAMILY

Ceanothus verrucosus—wart-stemmed ceanothus
Rhamnus crocea—redberry buckthorn
Rhamnus ilicifolia—hollyleaf redberry

ROSACEAE—ROSE FAMILY

Adenostoma fasciculatum—chamise
Heteromeles arbutifolia—toyon

RUBIACEAE—MADDER FAMILY

Galium angustifolium ssp. *angustifolium*—narrowleaf bedstraw
Galium angustifolium—narrowleaf bedstraw
Galium aparine—stickywilly
Galium porrigens var. *porrigens*—graceful bedstraw

RUTACEAE—RUE FAMILY

Cneoridium dumosum—bush rue

SAXIFRAGACEAE—SAXIFRAGE FAMILY

Jepsonia parryi—Parry's jepsonia

SCROPHULARIACEAE—FIGWORT FAMILY

Scrophularia californica—California figwort

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
Solanum parishii—Parish's nightshade

VIOLACEAE—VIOLET FAMILY

Viola pedunculata—Johnny-jump-up

FERNS AND FERN ALLIES

VASCULAR SPECIES

DRYOPTERIDACEAE—WOOD FERN FAMILY

Dryopteris arguta—coastal woodfern

PTERIDACEAE—BRAKE FAMILY

Pentagramma triangularis—goldback fern

SELAGINELLACEAE—SPIKE-MOSS FAMILY

Selaginella bigelovii—bushy spikemoss
Selaginella cinerascens—ashy spike-moss

MONOCOTS

VASCULAR SPECIES

ALLIACEAE—ONION FAMILY

Allium praecox—early onion

IRIDACEAE—IRIS FAMILY

Sisyrinchium bellum—western blue-eyed grass

JUNCACEAE—RUSH FAMILY

Juncus bufonius—toad rush

MELANTHIACEAE—FALSE HELLEBORE FAMILY

Toxicoscordion venenosum var. *venenosum*—meadow deathcamas

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Avena fatua*—wild oat
* *Brachypodium distachyon*—purple false brome
Bromus arizonicus—Arizona brome
* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Bromus madritensis* ssp. *rubens*—red brome
Festuca microstachys—small fescue
* *Festuca myuros*—rat-tail fescue
* *Festuca perennis*—perennial rye grass
* *Gastridium phleoides*—nit grass
* *Lamarckia aurea*—goldentop grass
Melica imperfecta—smallflower melicgrass
Muhlenbergia microsperma—littleseed muhly
Stipa lepida—foothill needlegrass
Stipa pulchra—purple needlegrass

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum ssp. *capitatum*—bluedicks

* signifies introduced (non-native) species

APPENDIX E

Wildlife Compendium

APPENDIX E
Wildlife Compendium

AMPHIBIAN

FROGS

HYLIDAE—TREEFROGS

Pseudacris hypochondriaca—Baja California treefrog

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Euphagus cyanocephalus—Brewer's blackbird
Icterus cucullatus—hooded oriole

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch
Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe
Sayornis saya—Say's phoebe
Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk
Buteo jamaicensis—red-tailed hawk
Buteo lineatus—red-shouldered hawk
Circus hudsonius—northern harrier

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—common raven

KINGFISHERS

ALCEDINIDAE—KINGFISHERS

Megaceryle alcyon—belted kingfisher

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird
Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

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

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

* *Columba livia*—rock pigeon (rock dove)

* *Streptopelia decaocto*—Eurasian collared-dove

Zenaida macroura—mourning dove

RAILS, GALLINULES AND COOTS

RALLIDAE—RAILS, GALLINULES, AND COOTS

Rallus limicola—Virginia rail

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

SHOREBIRDS

CHARADRIIDAE—LAPWINGS AND PLOVERS

Charadrius vociferus—killdeer

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Setophaga coronata—yellow-rumped warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Colaptes auratus—northern flicker

Picoides nuttallii—Nuttall's woodpecker

WRENS

TROGLODYTIDAE—WRENS

Salpinctes obsoletus—rock wren

Thryomanes bewickii—Bewick's wren

Troglodytes aedon—house wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Aimophila ruficeps—rufous-crowned sparrow
Melozone crissalis—California towhee
Pipilo maculatus—spotted towhee
Zonotrichia atricapilla—golden-crowned sparrow
Zonotrichia leucophrys—white-crowned sparrow

INVERTEBRATE

BUTTERFLIES

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote (sign)

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus—mule deer (sign)

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

* signifies introduced (non-native) species

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APPENDIX F

Special-Status Plant Species Detected or with Moderate Potential to Occur within the Project Area

APPENDIX F
Special-Status Plant Species Detected or with Moderate Potential to Occur within the Project Area

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	List B	Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1,245	Observed. This species was observed within Diegan coastal sage scrub during the 1999 focused rare plant surveys (Helix 1999) and updated spring 2019 surveys. Species is known to occur within the vicinity* (CDFW 2018a; Figure 3).
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2	List D	None	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland/annual herb/Mar–July/260–6,070	Observed The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. This species was observed during the 2019 focused surveys.
Selaginella cinerascens	ashy spike-moss	None/None/4.1	List D	None	Chaparral, coastal scrub/perennial rhizomatous herb/NA/65–2,100	Observed. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. This species was recorded outside the site in 2005. This species was observed during the 2019 focused surveys.

Notes: amsl = above mean sea level; NA = not applicable.

Status Legend

Federal

FE: Federally listed as endangered

State

SE: State listed as endangered

CRPR: California Rare Plant Rank

CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

CRPR 4: Plants of Limited Distribution - A Watch List

Threat Rank

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[1] The federal and state status of species is based on the Special Vascular Plants, Bryophytes, and Lichens List (April 2018) (CDFW 2018b).

* Vicinity" refers to species recorded in the USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a; CNPS 2018). "Region" refers to species recorded within the eight quadrangles surrounding USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a; CNPS 2018).

REFERENCES

CDFW (California Department of Fish and Wildlife). 2018a. RareFind, Version 5.2.14. California Natural Diversity Database. Accessed August 2018. http://www.dfg.ca.gov/biogeodata/cnddb/rarefind.asp.

CDFW. 2018b. CNDDB. *Special Vascular Plants, Bryophytes, and Lichens List*. California Natural Diversity Database. August 2018. Accessed August 2018. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline.

CNPS (California Native Plant Society). 2018. Inventory of Rare and Endangered Plants (online edition v8-03 0.45). Sacramento: CNPS, Rare Plant Program. Accessed August 2018. www.rareplants.cnps.org.

HELIX. 1999. "Existing Conditions and Constraints for the Perkins Property." November 1999.

APPENDIX G

Special-Status Plant Species with Low Potential or Not Expected to Occur within the Project Area

APPENDIX G
Special-Status Plant Species with Low Potential or Not Expected to Occur within the Project Area

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Abronia villosa var. *aurita*	chaparral sand-verbena	None/None/1B.1	List A	None	Chaparral, Coastal scrub, Desert dunes; sandy/annual herb/(Jan)Mar–Sep/245–5250	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub and soils are present; however, the nearest known CNDDB occurrence is over 17 miles north of the project area (CDFW 2018a).
Abronia maritima	red sand-verbena	None/None/4.2	List D	None	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. No suitable vegetation present.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1	List A	Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/30–3150	Low potential to occur. The site is located within the species known elevation range and suitable chaparral and coastal scrub is present; however, the species known to occur in areas where soils are mapped as Las Posas, Olivenhain, Redding, Huerhuero, Altamont, Cieneba, and Linne which are absent within the project area (USFWS 2009). Species is known to occur within the vicinity* with the nearest CNDDB occurrence located approximately 1.6 miles southwest of the project area (CDFW 2018a).
Acmispon haydonii	pygmy lotus	None/None/1B.3	List A	None	Pinyon and juniper woodland, Sonoran desert scrub; rocky/perennial herb/Jan–June/1705–3935	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	List A	None	Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June(July)/0–35	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Adolphia californica	California adolphia	None/None/2B.1	List B	Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable vegetation is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999). This species was observed outside the site in 2005.
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1	List B	None	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Absent. Suitable coastal scrub is present; however, this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1	List B	None	Coastal scrub/perennial shrub/Apr–June/180–510	Absent. Suitable coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1	List A	Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1360	Low potential to occur. Site is located within the species' known elevation range, suitable chaparral and coastal scrub is present, loam soils are present, and species is known to occur within the vicinity* with the nearest CNDDB occurrence located approximately 3.6 miles southeast of the project area (CDFW 2018a). However, this species is known to primarily occur on upper terraces of rivers and drainages (USFWS 2010a).

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Androsace elongata ssp. *acuta*	California androsace	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/annual herb/Mar–June/490–4280	Low potential to occur. The project area is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, the species is not known to occur within the region*.
Aphanisma blitoides	aphanisma	None/None/1B.2	List A	None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/annual herb/Feb–June/0–1000	Low potential to occur. The project area is located within the species' known elevation range and suitable coastal scrub is present; however, the species is primarily known to occur along the coast (CDFW 2018a).
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1	List A	Narrow Endemic	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1200	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2	List A	None	Chaparral, Cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/900–5575	Absent. Suitable chaparral and metavolcanic soils are present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/1B.1	List A	Narrow Endemic	Chaparral/perennial evergreen shrub/Dec–Mar/670–2200	Absent. Suitable chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Artemisia palmeri	San Diego sagewort	None/None/4.2	List D	None	Coastal scrub, chaparral, riparian forest, riparian woodland, riparian scrub; in drainages and riparian areas in sandy soil	Low potential to occur. Site is located within the species' known elevation range, suitable coastal scrub and chaparral is present; however, site contains one ephemeral drainage but lacks riparian habitats to support this species. Species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 1 mile south of the project area (CDFW 2018a; Figure 3).
Asplenium vespertinum	western spleenwort	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/590–3280	Low potential to occur. Site is located within the specie's known elevation range and suitable coastal scrub and rocky soils are present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Astragalus crotalariae	Salton milk-vetch	None/None/4.3	List D	None	Sonoran desert scrub (sandy or gravelly)/perennial herb/Jan–Apr/-195–820	Not expected to occur. No suitable desert scrub is present.
Astragalus deanei	Dean's milk-vetch	None/None/1B.1	List A	None	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/perennial herb/Feb–May/245–2280	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present; however, the species is not known to occur within the region*. The nearest known CNDDB occurrence is over 26 miles southeast of the project area (CDFW 2018a).
Astragalus douglasii	Jacumba milk-vetch	None/None/1B.2	List A	None	Chaparral, Cismontane woodland,	Not expected to occur. The site is

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
var. *perstrictus*					Pinyon and juniper woodland, Riparian scrub, Valley and foothill grassland; rocky/perennial herb/Apr–June/2950–4495	outside of the species' known elevation range.
Astragalus insularis var. *harwoodii*	Harwood's milk-vetch	None/None/2B.2	List B	None	Desert dunes, Mojavean desert scrub; sandy or gravelly/annual herb/Jan–May/0–2330	Not expected to occur. No suitable vegetation present.
Astragalus lentiginosus var. *borreganus*	Borrego milk-vetch	None/None/4.3	List D	None	Mojavean desert scrub, Sonoran desert scrub; sandy/annual herb/Feb–May/95–2935	Not expected to occur. No suitable vegetation present.
Astragalus magdalenae var. *peirsonii*	Peirson's milk-vetch	FT/SE/1B.2	List A	None	Desert dunes/perennial herb/Dec–Apr/195–740	Not expected to occur. No suitable vegetation present.
Astragalus oocarpus	San Diego milk-vetch	None/None/1B.2	List A	None	Chaparral (openings), Cismontane woodland/perennial herb/May–Aug/1000–5000	Not expected to occur. The site is outside of the species' known elevation range.
Astragalus pachypus var. *jaegeri*	Jaeger's bush milk-vetch	None/None/1B.1	List A	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; sandy or rocky/perennial shrub/Dec–June/1195–3200	Absent. The site is outside of the species' known elevation range and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1	List A	None	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/0–165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	List A	Narrow Endemic	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1510	Low potential to occur. Site is located within the species' known elevation range, suitable coastal scrub is present, and species is known to occur within the vicinity* with the nearest CNDDB occurrence located approximately

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
						8.6 miles southeast of the project area (CDFW 2018a); however, suitable alkaline or clay soils are absent.
Atriplex pacifica	South Coast saltscale	None/None/1B.2	List A	None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460	Low potential to occur. Site is located within the species' known elevation range, coastal scrub is present, and species is known to occur within the vicinity* with the nearest CNDDB occurrence located approximately 7.2 miles northwest of the project area (CDFW 2018a); however, playas are absent.
Atriplex parishii	Parish's brittlescale	None/None/1B.1	List A	Narrow Endemic	Chenopod scrub, Playas, Vernal pools; alkaline/annual herb/June–Oct/80–6235	Not expected to occur. No suitable vegetation present.
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None/None/1B.2	List A	None	Coastal bluff scrub, Coastal scrub; alkaline/annual herb/Apr–Oct/30–655	Low potential to occur. The site is located within the species' known elevation range, suitable coastal scrub is present; however, the species is not known to occur within the region*. The nearest known CNDDB occurrence is over 45 miles northwest of the project area (CDFW 2018a).
Ayenia compacta	California ayenia	None/None/2B.3	List B	None	Mojavean desert scrub, Sonoran desert scrub; rocky/perennial herb/Mar–Apr/490–3595	Not expected to occur. No suitable vegetation present.
Azolla microphylla	Mexican mosquito fern	None/None/4.2	List D	None	Marshes and swamps (ponds, slow water)/annual / perennial herb/Aug/95–330	Not expected to occur. No suitable vegetation present.
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1	List A	Narrow Endemic	Chaparral (maritime), Cismontane woodland; sandstone/perennial deciduous shrub/Aug,Oct,Nov/195–	Absent. Focused surveys for this species were conducted by Helix on October 18 and 21, 1999 and

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					2360	results were negative (Helix 1999). This perennial shrub was not observed during focused surveys conducted in spring 2019. Suitable chaparral is present and species is known to occur within the vicinity* (CDFW 2018a).
Berberis nevinii	Nevin's barberry	FE/SE/1B.1	List A	None	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; sandy or gravelly/perennial evergreen shrub/(Feb)Mar–June/225–2705	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2	List B	None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/perennial stem succulent/May–June/5–1295	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	List A	Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/Apr–May/160–1525	Low potential to occur. Site is located within the species' known elevation range, suitable chaparral and coastal scrub is present, and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 0.7 mile southeast of the project area (CDFW 2018a); however, site lacks suitable vernal pools and clay soils to support this species.
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1	List A	Narrow Endemic	Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; often clay/perennial	Low potential to occur. Site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and species is

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					bulbiferous herb/Mar–June/80–3675	known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 1.3 miles south of the project area (CDFW 2018a); however, site lacks suitable vernal pools and clay soils to support this species.
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1	List A	Narrow Endemic	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5550	Low potential to occur. Site is located within the species' known elevation range, suitable chaparral is present, and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 0.4 mile west of the project area (CDFW 2018a); however, site lacks suitable vernal pools, clay soils, and mesic conditions to support this species.
Boechera hirshbergiae	Hirshberg's rockcress	None/None/1B.2	List A	None	Pebble (Pavement) plain/perennial herb/Mar–May/4590–4640	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Bursera microphylla	little-leaf elephant tree	None/None/2B.3	List B	None	Sonoran desert scrub (rocky)/perennial deciduous tree/June–July/655–2295	Absent. No suitable vegetation present. This conspicuous tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Calandrinia breweri	Brewer's calandrinia	None/None/4.2	List D	None	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/30–4005	Low potential to occur. The site is located within the species' known elevation range, suitable vegetation and soils are present and the majority of the site burned

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						in the 1996 Elfin Forest fire (Helix 1999). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
California macrophylla	round-leaved filaree	None/None/ None	List B	None	Cismontane woodland, Valley and foothill grassland; clay/annual herb/Mar–May/45–3935	Not expected to occur. No suitable vegetation is present and species is not known to occur within the region*.
Calliandra eriophylla	pink fairy-duster	None/None/2B.3	List B	None	Sonoran desert scrub (sandy or rocky)/perennial deciduous shrub/Jan–Mar/390–4920	Absent. No suitable vegetation present. This conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Calochortus catalinae	Catalina mariposa lily	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/(Feb)Mar–June/45–2295	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2	List A	None	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb)Apr–June/605–6005	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and metavolcanic soils are present; however, the nearest known CNDDB occurrence is over 30 miles southeast of the project area (CDFW 2018a).
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3	List C	None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland;	Low potential to occur. The site is located within the species' known elevation range and suitable

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					sandy or clay/annual herb/Mar–May(June)/0–985	coastal scrub and soils are present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Carlowrightia arizonica	Arizona carlowrightia	None/None/2B.2	List B	None	Sonoran desert scrub (sandy, granitic alluvium)/perennial deciduous shrub/Mar–May/935–1410	Absent. No suitable desert scrub vegetation is present. This conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Caulanthus heterophyllus	California mustard	None/None/None	None	None	Coastal scrub, chaparral; dry, open, generally after fire, disturbance/annual herb/Mar–May/1400–4593	Not expected to occur. The site is outside of the species' known elevation range and there are no known CNDDB occurrences within the vicinity*.
Caulanthus simulans	Payson's jewelflower	None/None/4.2	List D	None	Chaparral, Coastal scrub; sandy, granitic/annual herb/(Feb)Mar–May(June)/295–7220	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, the nearest known CNDDB occurrence is over 19 miles north of the project area (CDFW 2018a).
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2	List A	None	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/770–2475	Absent. Suitable chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Centromadia parryi ssp. *australis*	southern tarplant	None/None/1B.1	List A	Narrow Endemic	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. No suitable vegetation present.

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Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/1B.1	List A	None	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Low potential to occur. No suitable vegetation is present; however, species is known to occur on disturbed sites (Baldwin 2012). The nearest known CNDDB occurrence is approximately 9 miles east of the project area (CDFW 2018a).
Chaenactis carphoclinia var. *peirsonii*	Peirson's pincushion	None/None/1B.3	List A	None	Sonoran desert scrub (sandy)/annual herb/Mar–Apr/5–1640	Not expected to occur. No suitable vegetation present.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1	List A	None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. No suitable vegetation present.
Chaenactis parishii	Parish's chaenactis	None/None/1B.3	List A	None	Chaparral (rocky)/perennial herb/May–July/4265–8200	Not expected to occur. The site is outside of the species' known elevation range.
Chamaebatia australis	southern mountain misery	None/None/4.2	List D	None	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/980–3345	Absent. The site is outside of the species' known elevation range. This conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2	List A	None	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Chorizanthe leptotheca	Peninsular spineflower	None/None/4.2	List D	None	Chaparral, Coastal scrub, Lower montane coniferous forest; alluvial fan, granitic/annual herb/May–Aug/980–6235	Not expected to occur. The site is outside of the species' known elevation range.

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Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1	List A	Narrow Endemic	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/Mar–May/5–410	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and species is known to occur within the vicinity* with the nearest known occurrence located approximately 2.9 miles south of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	FC/SE/1B.1	List A	None	Coastal scrub (sandy), Valley and foothill grassland/annual herb/Apr–July/490–4005	Not expected to occur. Species only known to occur in San Fernando Valley. Nearest CNDDB occurrence is over 57 miles north (CDFW 2018a).
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2	List A	None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/95–5020	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and species is known to occur within the vicinity* with the nearest known occurrence located approximately 4.2 miles southwest of the project area (CDFW 2018a); however, the site lacks suitable vernal pools and clay soils to support this species.
Chorizanthe procumbens	Prostrate spineflower	None/None/None	None	None	Coastal scrub, chaparral; sand or gravel/annual herb/Apr–June/1300–4265	Not expected to occur. The site is outside of the species' known elevation range and there are no known CNDDB occurrences within the vicinity*.
Cistanthe maritima	seaside cistanthe	None/None/4.2	List D	None	Coastal bluff scrub, Coastal scrub,	Low potential to occur. The site is

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					Valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985	located within the species' known elevation range and suitable coastal scrub is present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Clarkia delicata	delicate clarkia	None/None/1B.2	List A	None	Chaparral, Cismontane woodland; often gabbroic/annual herb/Apr–June/770–3280	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, the site lacks gabbroic soils and the nearest CNDDB occurrence is located over 11 miles east of the project area (CDFW 2018a).
Clinopodium chandleri	San Miguel savory	None/None/1B.2	List A	Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3525	Absent. Suitable vegetation and metavolcanic soils are present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Colubrina californica	Las Animas colubrina	None/None/2B.3	List B	None	Mojavean desert scrub, Sonoran desert scrub/perennial deciduous shrub/Apr–June/30–3280	Absent. No suitable vegetation present and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2	List A	Covered	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/95–2590	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

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Convolvulus simulans	small-flowered morning-glory	None/None/4.2	List D	None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/95–2430	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, the site lacks suitable soils to support this species.
Corethrogyne filaginifolia var. incana	San Diego sand aster	None/None/1B.1	None	None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/5–375	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and the nearest known CNDDB occurrence is located approximately 8.4 miles south of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	None/None/1B.1	List A	None	Coastal bluff scrub, Chaparral (maritime, openings), Coastal scrub; sandy/perennial herb/May,July,Aug,Sep/45–490	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 0.7 mile west of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Cryptantha ganderi	Gander's cryptantha	None/None/1B.1	List A	None	Desert dunes, Sonoran desert scrub (sandy)/annual herb/Feb–May/520–1310	Not expected to occur. No suitable vegetation present.
Cryptantha wigginsii	Wiggins' cryptantha	None/None/1B.2	None	None	Coastal scrub; often clay/annual	Low potential to occur. The site is

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					herb/Feb–June/65–900	located within the species' known elevation range, suitable coastal scrub is present and the nearest known CNDDB occurrence is located approximately 4.2 miles northwest of the project area (CDFW 2018a); however, the site lacks suitable clay soils to support this species.
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1	List A	None	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Cylindropuntia wolfii	Wolf's cholla	None/None/4.3	List D	None	Sonoran desert scrub/perennial stem succulent/Mar–May/325–3935	Absent. No suitable desert scrub is present and this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Deinandra conjugens	Otay tarplant	FT/SE/1B.1	List A	None	Coastal scrub, Valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub and soils are present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 27 miles south of the project area (CDFW 2018a).
Deinandra floribunda	Tecate tarplant	None/None/1B.2	List A	None	Chaparral, Coastal scrub/annual herb/Aug–Oct/225–4005	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is

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						present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 37 miles south of the project area (CDFW 2018a).
Deinandra mohavensis	Mojave tarplant	None/SE/1B.3	List A	None	Chaparral, Coastal scrub, Riparian scrub; mesic/annual herb/(May)June–Oct(Jan)/2095–5250	Not expected to occur. The site is outside of the species' known elevation range.
Deinandra paniculata	paniculate tarplant	None/None/4.2	List D	None	Coastal scrub, Valley and foothill grassland, Vernal pools; usually vernally mesic, sometimes sandy/annual herb/(Mar)Apr–Nov/80–3085	Low potential to occur. The site is located within the species' known elevation range and coastal scrub is present; however, site lacks suitable vernal pools and mesic conditions to support this species.
Delphinium parishii ssp. *subglobosum*	Colorado Desert larkspur	None/None/4.3	List D	None	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Sonoran desert scrub/perennial herb/Mar–June/1965–5905	Not expected to occur. The site is outside of the species' known elevation range.
Dichondra occidentalis	western dichondra	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1	List B	None	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr–July(Sep)/30–1150	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub is present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 33

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						miles south of the project area (CDFW 2018a).
Dieteria asteroides var. *lagunensis*	Mt. Laguna aster	None/SR/2B.1	List B	None	Cismontane woodland, Lower montane coniferous forest/perennial herb/(May)July–Aug/2590–7875	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Diplacus aridus	low bush monkeyflower	None/None/4.3	List D	None	Chaparral (rocky), Sonoran desert scrub/perennial evergreen shrub/Apr–July/2460–3935	Absent. The site is outside of the species' known elevation range and this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Diplacus clevelandii	Cleveland's bush monkeyflower	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Lower montane coniferous forest; Gabbroic, often in disturbed areas, openings, rocky/perennial rhizomatous herb/Apr–July/1475–6560	Not expected to occur. The site is outside of the species' known elevation range.
Ditaxis serrata var. *californica*	California ditaxis	None/None/3.2	List C	None	Sonoran desert scrub/perennial herb/Mar–Dec/95–3280	Not expected to occur. No suitable vegetation present.
Downingia concolor var. *brevior*	Cuyamaca Lake downingia	None/SE/1B.1	List A	None	Meadows and seeps (vernally mesic), Vernal pools/annual herb/May–July/4525–4920	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Dudleya alainae	Banner dudleya	None/None/3.2	List C	None	Chaparral, Lower montane coniferous forest, Sonoran desert scrub; rocky/perennial herb/Apr–July/2425–3935	Not expected to occur. The site is outside of the species' known elevation range.
Dudleya attenuata ssp. *attenuata*	Orcutt's dudleya	None/None/2B.1	List B	None	Coastal bluff scrub, Chaparral, Coastal scrub; rocky or gravelly/perennial herb/May–July/5–165	Not expected to occur. The site is outside of the species' known elevation range.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1	List A	None	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill	Low potential to occur. The site is located within the species' known

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					grassland; rocky, often clay or serpentinite/perennial herb/Apr–June/15–1475	elevation range, suitable chaparral and coastal scrub is present and the nearest known CNDDB occurrence is located approximately 5 miles northwest of the project area (CDFW 2018a); however, the site lacks suitable clay or serpentinite soils to support this species.
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1	List A	Narrow Endemic	Chaparral (maritime, openings), Coastal scrub; Torrey sandstone/perennial herb/Apr–May/95–820	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, Torrey sandstone soils are absent.
Dudleya multicaulis	many-stemmed dudleya	None/None/1B.2	List A	None	Chaparral, Coastal scrub, Valley and foothill grassland; often clay/perennial herb/Apr–July/45–2590	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 16 miles south of the project area (CDFW 2018a).
Dudleya variegata	variegated dudleya	None/None/1B.2	List A	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–June/5–1905	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present, and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 1.5 miles east of the project area (CDFW 2018a); however, the site lacks suitable

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
						vernal pools and clay soils to support this species.
Dudleya viscida	sticky dudleya	None/None/1B.2	List A	None	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/30–1805	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub and suitable rocky soils are present, and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 1.3 miles south of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Ericameria cuneata var. *macrocephala*	Laguna Mountains goldenbush	None/None/1B.3	List A	None	Chaparral (granitic)/perennial shrub/Sep–Dec/3920–6070	Absent. The site is outside of the species' known elevation range and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1	List B	None	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1970	Absent. Suitable chaparral and coastal is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

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Eriodictyon sessilifolium	sessile-leaved yerba stanta	None/None/2B.1	None	None	Coastal scrub; volcanic/perennial shrub/July/555–560	Absent. Suitable coastal scrub and volcanic soils are present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Eriogonum evanidum	vanishing wild buckwheat	None/None/1B.1	List A	None	Chaparral, Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland; sandy or gravelly/annual herb/July–Oct/3605–7300	Not expected to occur. The site is outside of the species' known elevation range.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1	List A	Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual / perennial herb/Apr–June/65–2035	Low potential to occur. The site is located within the species' known elevation range and coastal scrub is present; however, this species is a vernal pool obligate taxon (USFWS 2010b) and vernal pools are absent on site. Species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 3.7 miles southeast of the project area (CDFW 2018a).
Eryngium pendletonense	Pendleton button-celery	None/None/1B.1	List A	None	Coastal bluff scrub, Valley and foothill grassland, Vernal pools; clay, vernally mesic/perennial herb/Apr–June(July)/45–360	Not expected to occur. No suitable vegetation present.
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2	None	None	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/Feb–June/0–195	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Erythranthe diffusa	Palomar monkeyflower	None/None/4.3	List D	None	Chaparral, Lower montane coniferous forest; sandy or gravelly/annual herb/Apr–June/4000–6005	Not expected to occur. The site is outside of the species' known elevation range.
Eucnide rupestris	annual rock-nettle	None/None/2B.2	List B	None	Sonoran desert scrub/annual herb/Dec–Apr/1640–1970	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Euphorbia arizonica	Arizona spurge	None/None/2B.3	List B	None	Sonoran desert scrub (sandy)/perennial herb/Mar–Apr/160–985	Not expected to occur. No suitable vegetation present.
Euphorbia misera	cliff spurge	None/None/2B.2	List B	None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug(Oct)/30–1640	Absent. Suitable coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Euphorbia platysperma	flat-seeded spurge	None/None/1B.2	List A	None	Desert dunes, Sonoran desert scrub (sandy)/annual herb/Feb–Sep/210–330	Not expected to occur. No suitable vegetation present.
Euphorbia revoluta	revolute spurge	None/None/4.3	List D	None	Mojavean desert scrub (rocky)/annual herb/Aug–Sep/3590–10170	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	List B	Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem succulent/May–June/5–1475	Absent. Species is known to occur within the vicinity* (CDFW 2018) and suitable vegetation is present; however, this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	List B	None	Coastal dunes, Marshes and swamps (coastal salt), Playas/perennial herb/May–July/0–35	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1	List A	None	Closed-cone coniferous forest, Chaparral, Cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/30–2350	Absent. Suitable chaparral and metavolcanic soils are present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Fritillaria biflora	Chocolate lily	None/None/ None	List D	None	Coastal scrub, chaparral, valley and foothill grassland; sometimes clay, cobbly loam/perennial herb/Feb–June/1030–3379	Not expected to occur. The site is outside of the species' known elevation range.
Funastrum utahense	Utah vine milkweed	None/None/4.2	List D	None	Mojavean desert scrub, Sonoran desert scrub; sandy or gravelly/perennial herb/(Mar)Apr–June(Sep–Oct)/325–4710	Not expected to occur. No suitable vegetation present.
Galium angustifolium ssp. *borregoense*	Borrego bedstraw	None/SR/1B.3	List A	None	Sonoran desert scrub (rocky)/perennial herb/Mar(May)/1145–4100	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Galium angustifolium ssp. *jacinticum*	San Jacinto Mountains bedstraw	None/None/1B.3	List A	None	Lower montane coniferous forest/perennial herb/June–Aug/4425–6890	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Galium johnstonii	Johnston's bedstraw	None/None/4.3	List D	None	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland/perennial herb/June–July/4000–7545	Not expected to occur. The site is outside of the species' known elevation range.

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Geothallus tuberosus	Campbell's liverwort	None/None/1B.1	None	None	Coastal scrub (mesic), Vernal pools; soil/ephemeral liverwort/N.A./30–1970	Low potential to occur. The site is located within the species' known elevation range; however, mesic coastal scrub is not present and the site lacks vernal pools to support this species. The nearest known CNDDB occurrence is over 10 miles south of the project area (CDFW 2018a).
Geraea viscida	sticky geraea	None/None/2B.2	List B	None	Chaparral (often in disturbed areas)/perennial herb/(Apr)May–June/1475–5575	Not expected to occur. The site is outside of the species' known elevation range.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/3.1	List C	None	Chaparral (mesic, disturbed areas)/annual herb/Apr–June/1475–2295	Not expected to occur. The site is outside of the species' known elevation range.
Grindelia hallii	San Diego gumplant	None/None/1B.2	List A	None	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/May–Oct/605–5725	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, the nearest known CNDDB occurrence is located over 14 miles south of the project area (CDFW 2018a).
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2	List D	None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present, and species is known to occur within the vicinity* with the nearest known occurrence located approximately 1.1 miles west of the project area (CDFW 2018a); however, the site lacks suitable clay soils to support this species.

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Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1	List A	None	Chaparral (maritime), Coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/260–280	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Herissantia crispa	curly herissantia	None/None/2B.3	List B	None	Sonoran desert scrub/annual / perennial herb/(Apr)Aug–Sep/2295–2380	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1	List A	None	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4920	Absent. Suitable chaparral and metavolcanic soils are present; however, this conspicuous tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Hesperocyparis stephensonii	Cuyamaca cypress	None/None/1B.1	List A	None	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Riparian forest; gabbroic/perennial evergreen tree/N.A./3395–5595	Absent. The site is outside of the species' known elevation range and this conspicuous evergreen tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Heterotheca sessiliflora ssp. *sanjacintensis*	Sessileflower false goldenaster	None/None/ None	List D	None	Montane habitats; reported to be endemic to Mount Palomar and the San Jacinto Mountains (Reiser 2001)/perennial herb/July–Sep/2200–7218	Not expected to occur. Species is endemic to Mount Palomar and San Jacinto Mountains.

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Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1	None	None	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4020	Low potential to occur. The site is located within the species' known elevation range and species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 5.1 miles south of the project area (CDFW 2018a); however, this species occurs along coastal areas and suitable coastal chaparral is absent.
Heuchera brevistaminea	Laguna Mountains alumroot	None/None/1B.3	List A	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Riparian forest; rocky/perennial rhizomatous herb/Apr–July(Sep)/4490–6560	Not expected to occur. The site is outside of the species' known elevation range.
Heuchera rubescens var. *versicolor*	San Diego County alumroot	None/None/3.3	List B	None	Chaparral, Lower montane coniferous forest; rocky/perennial rhizomatous herb/May–June/4920–13125	Not expected to occur. The site is outside of the species' known elevation range.
Holocarpha virgata ssp. elongata	graceful tarplant	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Hordeum intercedens	vernal barley	None/None/3.2	List C	None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/15–3280	Low potential to occur. The site is located within the species' known elevation range, suitable coastal scrub is present; however, the site lacks suitable vernal pools and saline depressions to support this

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						species.
Horkelia cuneata var. *puberula*	mesa horkelia	None/None/1B.1	List A	None	Chaparral (maritime), Cismontane woodland, Coastal scrub; sandy or gravelly/perennial herb/Feb–July(Sep)/225–2655	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub and soils are present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 21 miles north of the project area (CDFW 2018a).
Horkelia truncata	Ramona horkelia	None/None/1B.3	List A	None	Chaparral, Cismontane woodland; clay, gabbroic/perennial herb/May–June/1310–4265	Not expected to occur. The site is outside of the species' known elevation range. Species is known to occur within the vicinity* (CDFW 2018a).
Horsfordia newberryi	Newberry's velvet-mallow	None/None/4.3	List D	None	Sonoran desert scrub (rocky)/perennial shrub/Feb,Apr,Nov,Dec/5–2625	Absent. No suitable vegetation present and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Hosackia crassifolia var. *otayensis*	Otay Mountain lotus	None/None/1B.1	List A	None	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May–Aug/1245–3295	Not expected to occur. The site is outside of the species' known elevation range.
Hulsea californica	San Diego sunflower	None/None/1B.3	List A	None	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; openings and burned areas/perennial herb/Apr–June/3000–9565	Not expected to occur. The site is outside of the species' known elevation range.
Hulsea mexicana	Mexican hulsea	None/None/2B.3	List B	None	Chaparral (volcanic, often on burns or disturbed areas)/annual / perennial herb/Apr–June/3935–3935	Not expected to occur. The site is outside of the species' known elevation range.

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Hymenothrix wrightii	Wright's hymenothrix	None/None/4.3	List D	None	Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland/perennial herb/June–Oct/4590–5085	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ipomopsis tenuifolia	slender-leaved ipomopsis	None/None/2B.3	List B	None	Chaparral, Pinyon and juniper woodland, Sonoran desert scrub; gravelly or rocky/perennial herb/Mar–May/325–3935	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and soils are present; however, the species is not known to occur within the region* and the nearest CNDDB occurrence is over 63 miles east of the project area (CDFW 2018a).
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2	List A	None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/30–445	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable chaparral and coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	List B	None	Marshes and swamps, Playas/perennial herb/Apr–Oct/30–1640	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity* (CDFW 2018a).
Johnstonella costata	ribbed cryptantha	None/None/4.3	List D	None	Desert dunes, Mojavean desert scrub, Sonoran desert scrub; sandy/annual herb/Feb–May/-195–1640	Not expected to occur. No suitable vegetation present.
Johnstonella holoptera	winged cryptantha	None/None/4.3	List D	None	Mojavean desert scrub, Sonoran desert scrub/annual herb/Mar–Apr/325–5545	Not expected to occur. No suitable vegetation present.

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Juglans californica	Southern California black walnut	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; alluvial/perennial deciduous tree/Mar–Aug/160–2955	Absent. Suitable chaparral and coastal is present; however, this conspicuous tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2	List D	None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2955	Not expected to occur. No suitable vegetation present.
Juncus cooperi	Cooper's rush	None/None/4.3	List D	None	Meadows and seeps (mesic, alkaline or saline)/perennial herb/Apr–May(Aug)/-850–5805	Not expected to occur. No suitable vegetation present.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1	List A	None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/0–4005	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity* (CDFW 2018a).
Lathyrus splendens	pride-of-California	None/None/4.3	List D	None	Chaparral/perennial herb/Mar–June/655–5005	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, this species is not known to occur within the region* (CDFW 2018a).
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2	List A	None	Closed-cone coniferous forest, Chaparral, Cismontane woodland/perennial shrub/Apr–July/1705–4495	Absent. The site is outside of the species' known elevation range and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

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Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3	List A	None	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/June–July/1000–3295	Absent. The site is outside of the species' known elevation range and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Lepidium flavum var. *felipense*	Blair Valley pepper-grass	None/None/1B.2	List A	None	Pinyon and juniper woodland, Sonoran desert scrub; sandy/annual herb/Mar–May/1490–2755	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None/None/4.3	List A	None	Chaparral, Coastal scrub/annual herb/Jan–July/0–2905	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub and chaparral is present. Species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 3.8 miles east of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Leptosiphon floribundus ssp. *hallii*	Santa Rosa Mountains leptosiphon	None/None/1B.3	List A	None	Pinyon and juniper woodland, Sonoran desert scrub/perennial herb/May–July(Nov)/3280–6560	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Leptosyne maritima	sea dahlia	None/None/2B.2	List B	None	Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/15–490	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub is present. Species is known to occur within the vicinity* with the nearest known CNDDB occurrence located approximately 1 miles south

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
						of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Lessingia glandulifera var. *tomentosa*	Warner Springs lessingia	None/None/1B.1	List A	None	Chaparral (sandy)/annual herb/Aug,Oct/2850–4005	Not expected to occur. The site is outside of the species' known elevation range.
Lewisia brachycalyx	short-sepaled lewisia	None/None/2B.2	List B	None	Lower montane coniferous forest, Meadows and seeps; mesic/perennial herb/(Feb)Apr–June(July)/4490–7545	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; openings/perennial bulbiferous herb/Mar–July(Aug)/95–5905	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, the species is not known to occur in the region* (CDFW 2018a).
Lilium parryi	lemon lily	None/None/1B.2	List A	None	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; mesic/perennial bulbiferous herb/July–Aug/4000–9005	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Limnanthes alba ssp. *parishii*	Parish's meadowfoam	None/SE/1B.2	List A	None	Lower montane coniferous forest, Meadows and seeps, Vernal pools; vernally mesic/annual herb/Apr–June/1965–6560	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Linanthus bellus	desert beauty	None/None/2B.1	List B	None	Chaparral (sandy)/annual herb/Apr–May/3280–4595	Not expected to occur. The site is outside of the species' known elevation range.
Linanthus orcuttii	Orcutt's linanthus	None/None/1B.3	List A	None	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; openings/annual herb/May–June/3000–7035	Not expected to occur. The site is outside of the species' known elevation range.

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Lupinus albifrons var. *medius*	Mountain Springs bush lupine	None/None/1B.3	List A	None	Pinyon and juniper woodland, Sonoran desert scrub/perennial shrub/Mar–May/1390–4495	Absent. The site is outside of the species' known elevation range and there is no suitable vegetation present. This conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Lycium californicum	California box-thorn	None/None/4.2	List D	None	Coastal bluff scrub, Coastal scrub/perennial shrub/(Dec)Mar,June,July,Aug/15–490	Absent. Suitable coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Lycium parishii	Parish's desert-thorn	None/None/2B.3	List B	None	Coastal scrub, Sonoran desert scrub/perennial shrub/Mar–Apr/440–3280	Absent. Suitable coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Lyrocarpa coulteri	Palmer's lyrepod	None/None/4.3	List D	None	Sonoran desert scrub (gravelly or rocky)/perennial herb/Dec–Apr/390–2610	Not expected to occur. No suitable vegetation present.
Malacothamnus aboriginum	Indian Valley bush-mallow	None/None/1B.2	List A	None	Chaparral, Cismontane woodland; Rocky, granitic, often in burned areas/perennial deciduous shrub/Apr–Oct/490–5575	Absent. Suitable chaparral is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Malperia tenuis	brown turbans	None/None/2B.3	List B	None	Sonoran desert scrub (sandy, gravelly)/annual herb/(Feb)Mar–Apr/45–1100	Not expected to occur. No suitable vegetation present.
Matelea parvifolia	spearleaf	None/None/2B.3	List B	None	Mojavean desert scrub, Sonoran	Not expected to occur. The site is

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					desert scrub; rocky/perennial herb/Mar–May(July)/1440–3595	outside of the species' known elevation range and there is no suitable vegetation present.
Mentzelia hirsutissima	hairy stickleaf	None/None/2B.3	List B	None	Sonoran desert scrub (rocky)/annual herb/Mar–May/0–2295	Not expected to occur. No suitable vegetation present.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2	List D	None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/45–3510	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub and clay soils are present; however, the site lacks vernal pools to support this species.
Mimulus latidens	Vernal pool monkeyflower	None/None/ None	List A	None	Vernal pools/annual herb/Apr–June/900–2953	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Mirabilis tenuiloba	slender-lobed four o'clock	None/None/4.3	List D	None	Sonoran desert scrub/perennial herb/(Feb)Mar–May/750–3595	Not expected to occur. No suitable vegetation present.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2	List A	Covered	Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Aug/980–5165	Not expected to occur. The site is outside of the species' known elevation range. Species is known to occur within the vicinity* (CDFW 2018a).
Monardella macrantha ssp. *hallii*	Hall's monardella	None/None/1B.3	List A	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland/perennial rhizomatous herb/June–Oct/2395–7200	Not expected to occur. The site is outside of the species' known elevation range.
Monardella stoneana	Jennifer's monardella	None/None/1B.2	List A	None	Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian scrub; usually rocky intermittent streambeds/perennial herb/June–	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
					Sep/30–2590	present; however, species is only known near Baja California with the nearest CNDDB occurrence being over 38 miles south of the project area (CDFW 2018a).
Monardella viminea	willowy monardella	FE/SE/1B.1	List A	None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, site lacks alluvial conditions, there is only one ephemeral wash present and the nearest CNDDB occurrence is over 11 miles south of the project area (CDFW 2018a).
Mucronea californica	California spineflower	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy/annual herb/Mar–July(Aug)/0–4595	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub and soils are present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1	List C	Covered	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2100	Not expected to occur. No suitable vegetation present.
Nama stenocarpa	mud nama	None/None/2B.2	List B	None	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/15–1640	Not expected to occur. No suitable vegetation present.
Nasturtium gambelii	Gambel's water cress	FE/ST/1B.1	List A	None	Marshes and swamps (freshwater or brackish)/perennial rhizomatous herb/Apr–Oct/15–1085	Not expected to occur. No suitable vegetation present.
Navarretia fossalis	spreading	FT/None/1B.1	List A	Covered	Chenopod scrub, Marshes and swamps (assorted shallow	Not expected to occur. No suitable vegetation present. Species is

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	navarretia				freshwater), Playas, Vernal pools/annual herb/Apr–June/95–2150	known to occur within the vicinity* (CDFW 2018a).
Navarretia peninsularis	Baja navarretia	None/None/1B.2	List A	None	Chaparral (openings), Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland; mesic/annual herb/(May)June–Aug/4920–7545	Not expected to occur. The site is outside of the species' known elevation range.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	List A	None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/5–3970	Low potential to occur. The site is located within the species' known elevation range and coastal scrub is present; however, the site lacks suitable vernal pools to support this species.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2	List A	None	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. No suitable vegetation present.
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2	List B	None	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/(Mar)Apr–May/-160–1310	Not expected to occur. No suitable vegetation present.
Nolina cismontana	chaparral nolina	None/None/1B.2	List A	Narrow Endemic	Chaparral, Coastal scrub; sandstone or gabbro/perennial evergreen shrub/(Mar)May–July/455–4185	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Nolina interrata	Dehesa nolina	None/SE/1B.1	List A	None	Chaparral (gabbroic, metavolcanic, or serpentinite)/perennial herb/June–July/605–2805	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and metavolcanic soils are present; however, this species not known to occur within the region* and the nearest CNDDB occurrence is located over 27 miles southeast of the project area

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						(CDFW 2018a).
Ophioglossum californicum	California adder's-tongue	None/None/4.2	List D	None	Chaparral, Valley and foothill grassland, Vernal pools (margins); mesic/perennial rhizomatous herb/(Dec)Jan–June/195–1720	Low potential to occur. The site is located within the species' known elevation range and chaparral is present; however, the site lacks suitable vernal pools to support this species.
Opuntia wigginsii	Wiggins' cholla	None/None/3.3	List C	None	Sonoran desert scrub (sandy)/perennial stem succulent/Mar/95–2905	Absent. No suitable vegetation present and this conspicuous stem succulent would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	List A	None	Vernal pools/annual herb/Apr–Aug/45–2165	Not expected to occur. No suitable vegetation present.
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1	List B	None	Chaparral/perennial evergreen shrub/Jan–Apr/180–2625	Absent. Suitable chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Orobanche parishii ssp. brachyloba	short-lobed broomrape	None/None/4.2	List D	None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub is present. The nearest known CNDDB occurrence is located approximately 4.2 miles southwest of the project area (CDFW 2018a). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Packera ganderi	Gander's ragwort	None/SR/1B.2	List A	Narrow	Chaparral (burns, gabbroic outcrops)/perennial herb/Apr–	Not expected to occur. The site is outside of the species' known

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				Endemic	June/1310–3935	elevation range.
Pectocarya peninsularis	Baja California bur-comb	None/None/ None	List D	None	Sonoran desert scrub; washes, roadsides, clearings, sandy, silty, or gravelly soil/annual herb/Feb–Apr/300–984	Not expected to occur. No suitable vegetation present.
Penstemon clevelandii var. *connatus*	San Jacinto beardtongue	None/None/4.3	List D	None	Chaparral, Pinyon and juniper woodland, Sonoran desert scrub; rocky/perennial herb/Mar–May/1310–4920	Not expected to occur. The site is outside of the species' known elevation range.
Penstemon thurberi	Thurber's beardtongue	None/None/4.2	List D	None	Chaparral, Joshua tree woodland, Pinyon and juniper woodland, Sonoran desert scrub/perennial herb/May–July/1640–4005	Not expected to occur. The site is outside of the species' known elevation range.
Perideridia gairdneri ssp. *gairdneri*	Gairdner's yampah	None/None/4.2	List D	None	Broadleafed upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools; vernally mesic/perennial herb/June–Oct/0–2000	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, the site lacks vernal pools and vernally mesic conditions to support this species.
Phacelia ramosissima var. austrolitoralis	south coast branching phacelia	None/None/3.2	None	None	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/Mar–Aug/15–985	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub and soils are present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Phacelia stellaris	Brand's star phacelia	None/None/1B.1	List A	None	Coastal dunes, Coastal scrub/annual herb/Mar–June/0–1310	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub is present. Focused rare plant surveys were conducted in spring 2019 and were negative

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						for this species.
Pilostyles thurberi	Thurber's pilostyles	None/None/4.3	List D	None	Sonoran desert scrub/perennial herb (parasitic)/Dec–Apr/0–1200	Not expected to occur. No suitable vegetation present.
Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2	List A	None	Closed-cone coniferous forest, Chaparral; Sandstone/perennial evergreen tree/N.A./95–525	Absent. Suitable chaparral is present; however, this conspicuous evergreen tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Piperia cooperi	chaparral rein orchid	None/None/4.2	List D	None	Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/Mar–June/45–5200	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present. Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Piperia leptopetala	narrow-petaled rein orchid	None/None/4.3	List D	None	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest/perennial herb/May–July/1245–7300	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Poa atropurpurea	San Bernardino blue grass	FE/None/1B.2	List A	None	Meadows and seeps (mesic)/perennial rhizomatous herb/(Apr)May–July(Aug)/4460–8055	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1	List A	None	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity* (CDFW 2018a).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1	List A	None	Vernal pools/annual herb/May–July/295–820	Not expected to occur. No suitable vegetation present.
Polygala cornuta var. *fishiae*	Fish's milkwort	None/None/4.3	List D	None	Chaparral, Cismontane woodland, Riparian woodland/perennial deciduous shrub/May–Aug/325–	Absent. Suitable chaparral is present; however, this conspicuous shrub would have been detected by

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					3280	Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Proboscidea althaeifolia	desert unicorn-plant	None/None/4.3	List D	None	Sonoran desert scrub; gently sloping sandy flats and washes, sometimes roadsides/perennial herb/May–Sep(Oct)/275–3280	Not expected to occur. No suitable vegetation present.
Psilocarphus brevissimus var. *multiflorus*	Delta woolly-marbles	None/None/4.2	None	None	Vernal pools/annual herb/May–June/30–1640	Not expected to occur. No suitable vegetation present.
Quercus cedrosensis	Cedros Island oak	None/None/2B.2	List B	None	Closed-cone coniferous forest, Chaparral, Coastal scrub/perennial evergreen tree/Apr–May/835–3150	Absent. Suitable chaparral; and coastal scrub is present; however, this conspicuous evergreen tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1	List A	Narrow Endemic	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/45–1310	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Quercus engelmannii	Engelmann oak	None/None/4.2	List D	Covered	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4265	Absent. Suitable chaparral is present; however, this conspicuous tree would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Rhus aromatica var. *simplicifolia*	single-leaved skunkbrush	None/None/2B.3	List B	None	Pinyon and juniper woodland; Usually granitic./perennial deciduous shrub/Mar–Apr/4000–	Absent. The site is outside of the species' known elevation range, there is no suitable vegetation

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					4495	present, and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Ribes canthariforme	Moreno currant	None/None/1B.3	List A	None	Chaparral, Riparian scrub/perennial deciduous shrub/Feb–Apr/1115–3935	Absent. The site is outside of the species' known elevation range and this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2	List A	None	Chaparral, Cismontane woodland/perennial evergreen shrub/Feb–Apr/95–1150	Absent. Suitable chaparral is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Romneya coulteri	Coulter's matilija poppy	None/None/4.2	List D	None	Chaparral, Coastal scrub; Often in burns/perennial rhizomatous herb/Mar–July(Aug)/65–3935	Low potential to occur. The site is located within the species' known elevation range, suitable chaparral and coastal scrub is present and the majority of the site burned in the 1996 Elfin Forest fire (Helix 1999). Focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Rosa minutifolia	small-leaved rose	None/SE/2B.1	List B	None	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/490–525	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

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Rubus glaucifolius var. *ganderi*	Cuyamaca raspberry	None/None/3.1	List A	None	Lower montane coniferous forest (gabbroic)/perennial evergreen shrub/May–June/3935–5495	Absent. The site is outside of the species' known elevation range, there is no suitable vegetation present, and this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Rupertia rigida	Parish's rupertia	None/None/4.3	List D	None	Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pebble (Pavement) plain, Valley and foothill grassland/perennial herb/June–Aug/2295–8200	Not expected to occur. The site is outside of the species' known elevation range.
Saltugilia caruifolia	caraway-leaved woodland-gilia	None/None/4.3	List D	None	Chaparral, Lower montane coniferous forest; Sandy, openings/annual herb/May–Aug/2755–7545	Not expected to occur. The site is outside of the species' known elevation range.
Salvia eremostachya	desert sage	None/None/4.3	List D	None	Sonoran desert scrub (rocky or gravelly)/perennial evergreen shrub/Mar–May/2295–4595	Absent. The site is outside of the species' known elevation range, there is no suitable vegetation present, and this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

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Salvia munzii	Munz's sage	None/None/2B.2	List B	None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Absent. Species is known to occur within the vicinity* (CDFW 2018a) and suitable chaparral and coastal scrub is present; however, this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	None/None/1B.2	List A	None	Chaparral, Cismontane woodland, Lower montane coniferous forest; mesic/perennial rhizomatous herb/June–Aug/1390–6560	Not expected to occur. The site is outside of the species' known elevation range.
Selaginella asprella	bluish spike-moss	None/None/4.3	List D	None	Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest; granitic, rocky/perennial rhizomatous herb/July/5245–8860	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Selaginella eremophila	desert spike-moss	None/None/2B.2	List B	None	Chaparral, Sonoran desert scrub (gravelly or rocky)/perennial rhizomatous herb/(May)June(July)/655–4250	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present; however, species is not known to occur in the region* and the nearest CNDDB occurrence is located over 40 miles east of the project area (CDFW 2018a).
Senecio aphanactis	chaparral ragwort	None/None/2B.2	List B	None	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/annual herb/Jan–Apr(May)/45–2625	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. However, focused rare

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						plant surveys were conducted in spring 2019 and were negative for this species. The nearest known CNDDB occurrence is located approximately 8 miles southwest of the project area (CDFW 2018a).
Senna covesii	Coves' cassia	None/None/2B.2	List B	None	Sonoran desert scrub; Dry, sandy desert washes and slopes/perennial herb/Mar–June(Aug)/735–4250	Not expected to occur. No suitable vegetation present.
Sibaropsis hammittii	Hammitt's clay-cress	None/None/1B.2	List A	None	Chaparral (openings), Valley and foothill grassland; clay/annual herb/Mar–Apr/2360–3495	Not expected to occur. The site is outside of the species' known elevation range.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2	None	None	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/Mar–June/45–5020	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present; however, the site lacks alkaline soils and playas to support this species.
Spermolepis echinata	bristly scaleseed	None/None/ None	List B	None	Sonoran desert scrub (sandy or rocky)/annual herb/Mar–Apr/1500–4921	Not expected to occur. No suitable vegetation present.
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1	None	None	Chaparral, Coastal scrub; openings, soil/ephemeral liverwort/N.A./295–1970	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. However, focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Stemodia durantifolia	purple stemodia	None/None/2B.1	List B	None	Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr,June,Aug,Sep,Oct,Dec/590–985	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity* (CDFW 2018a).

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Stipa diegoensis	San Diego County needle grass	None/None/4.2	List D	None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2625	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral and coastal scrub is present. However, focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	List D	None	Chaparral, Lower montane coniferous forest/perennial herb/May–Aug/2195–8200	Not expected to occur. The site is outside of the species' known elevation range.
Streptanthus campestris	southern jewelflower	None/None/1B.3	List A	None	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; rocky/perennial herb/(Apr)May–July/2950–7545	Not expected to occur. The site is outside of the species' known elevation range.
Stylocline citroleum	oil neststraw	None/None/1B.1	List A	None	Chenopod scrub, Coastal scrub, Valley and foothill grassland; clay/annual herb/Mar–Apr/160–1310	Low potential to occur. The site is located within the species' known elevation range and suitable coastal scrub and clay soils are present; however, the nearest known CNDDB occurrence is over 18 miles south of the project area (CDFW 2018a).
Suaeda esteroa	estuary seablite	None/None/1B.2	List A	None	Marshes and swamps (coastal salt)/perennial herb/(May)July–Oct(Jan)/0–15	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Suaeda taxifolia	woolly seablite	None/None/4.2	List D	None	Coastal bluff scrub, Coastal dunes, Marshes and swamps (margins of coastal salt)/perennial evergreen shrub/Jan–Dec/0–165	Absent. The site is outside of the species' known elevation range, there is no suitable vegetation present, and this conspicuous evergreen shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	List A	Narrow Endemic	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3280	Absent. Suitable chaparral and coastal scrub is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Texosporium sancti-jacobi	woven-spored lichen	None/None/3	None	None	Chaparral (openings); On soil, small mammal pellets, dead twigs, and on Selaginella spp/crustose lichen (terricolous)/N.A./195–2165	Low potential to occur. The site is located within the species' known elevation range and suitable chaparral is present. However, focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Thermopsis californica var. *semota*	velvety false lupine	None/None/1B.2	List A	None	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial rhizomatous herb/Mar–June/3280–6135	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Viguiera laciniata	San Diego County viguiera	None/None/4.3	List D	None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Absent. Suitable chaparral and coastal scrub I is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Viguiera purisimae	La Purisima viguiera	None/None/2B.3	List A	None	Coastal bluff scrub, Chaparral/shrub/Apr–Sep/1195–1395	Absent. Suitable chaparral is present; however, this conspicuous shrub would have been detected by Helix during the focused rare plant surveys conducted in 1999 (Helix 1999).
Viola purpurea ssp. *aurea*	golden violet	None/None/2B.2	List B	None	Great Basin scrub, Pinyon and juniper woodland; sandy/perennial herb/Apr–June/3280–8200	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State/ CRPR)[1]	San Diego County[2]	North County MSCP	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Xanthisma junceum	rush-like bristleweed	None/None/4.3	List D	None	Chaparral, Coastal scrub/perennial herb/May–Jan/785–3280	Low potential to occur. The site is located within the species' known elevation range and there is suitable chaparral and coastal scrub present. However, focused rare plant surveys were conducted in spring 2019 and were negative for this species.
Xylorhiza orcuttii	Orcutt's woody-aster	None/None/1B.2	List A	None	Sonoran desert scrub/perennial herb/Mar–Apr/0–1200	Not expected to occur. No suitable vegetation present.

Notes:
Status Legend
Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
FC: Federal Candidate for listing
State
SE: State listed as endangered
SR: State Rare

CRPR: California Rare Plant Rank
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
CRPR 4: Plants of Limited Distribution - A Watch List

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

[1] The federal and state status of species is based on the Special Vascular Plants, Bryophytes, and Lichens List (April 2018) (CNDDB 2018b).

* "Vicinity" refers to species recorded in the USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a; CNPS 2018). "Region" refers to species recorded within the eight quadrangles surrounding USGS 7.5-minute Rancho Santa Fe quadrangle (CDFW 2018a; CNPS 2018).

APPENDIX H

Resource Management Plan

FINAL

Resource Management Plan for the Hidden Canyon Project, San Diego County, California PDS2016-LDGRMJ-30097

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JANUARY 2020

Printed on 30% post-consumer recycled material.

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ACOE	Army Corps of Engineers
BMP	best management practice
BTR	Biological Resources Technical Report
CDFW	California Department of Fish and Wildlife
CRPR	California Rare Plant Rank
NCMSCP	North County Multiple Species Conservation Program
OHV	off-highway vehicle
PAMA	Pre-Approved Mitigation Area
PAR	Property Analysis Record
RMP	Resource Management Plan
RWQCB	Regional Water Quality Control Board
TECC	The Escondido Creek Conservancy
USFWS	U.S. Fish and Wildlife Service

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1 INTRODUCTION

This Resource Management Plan (RMP) has been prepared for the proposed Hidden Canyon Project (proposed project) in accordance with the mitigation requirements identified in the draft Biological Resources Technical Report for the Hidden Canyon Project (BTR; Dudek 2020). This document is consistent with the format and content requirements of the County of San Diego (County) Report Format and Content Requirements: Conceptual Biological Resources Management Plan (County of San Diego 2010a). This RMP covers the management of the habitats to remain as part of the on-site biological open space on the project site.

Proposed mitigation for the project includes approximately 13.33 acres of mafic southern mixed chaparral and coastal sage scrub as on-site open space. The proposed on-site open space consists of all areas outside the development footprint, with the exception of 0.88 acres located in patches too small to offer biological value and therefore considered to be impact neutral. Therefore, the total on-site preservation is 13.33 acres. The on-site open space connects to the adjacent preserve for the Rancho Summit Estates Project managed by the Escondido Creek Conservancy, as well as the Rancho La Costa Preserve managed by the Center for Natural Lands Management. This RMP includes a description of management tasks for the 13.33 acres of on-site open space preserve.

1.1 Purpose of Biological Resources Management Plan

The purpose of this RMP is to provide guidance to ensure preservation and long-term management of the open space preserve. The objectives of this RMP are to:

1. Guide management of vegetation communities/habitats, plant and animal species, and programs described herein to protect and, where appropriate, enhance biological values.
2. Serve as a descriptive inventory of vegetation communities, habitats, and plant and animal species that occur on or use this property.
3. Establish the baseline conditions from which adaptive management will be determined and success will be measured.
4. Provide an overview of the operation, maintenance, administrative, and personnel requirements to implement management goals and serve as a budget planning aid.

A resource analysis is provided in the BTR for the proposed project (Dudek 2020). This report includes (1) a description of the existing biological resources on the project site, including vegetation communities and land covers, jurisdictional resources, plants, wildlife, and wildlife corridors; (2) a discussion of the potential impacts to biological resources that would result from development of the property and the biological significance of these impacts in the context of federal, state, and local laws and policies; and (3) recommended mitigation measures for reducing identified significant impacts to biological resources to less than significant. Mitigation recommendations follow federal, state, and local rules and regulations, including the California

Environmental Quality Act, the County's Guidelines for Determining Significance and Report Format and Content Requirements (County of San Diego 2010b), and the County's Resource Protection Ordinance (County of San Diego 2007).

1.1.1 Conditions and/or Mitigation Measures that Require an RMP

An RMP is required for projects in the County of San Diego when a planned project proposes open space preservation that would significantly benefit from active management and/or monitoring of biological and/or cultural resources. An RMP is always required when a project proposes open space totaling more than 50 acres or more, regardless of the presence or absence of sensitive species. In the case of the Hidden Canyon open space preserve, the first of these parameters applies.

The project would impact approximately 10.40 acres of vegetation communities and land covers, approximately 10.12 acres of those impacts are too sensitive upland communities which require mitigation. A total of 13.33 acres of comparable habitat is provided in order to adequately mitigate for project impacts (Table 1). The project proposes to meet this mitigation obligation through the preservation of 13.33 acres within proposed on-site open space.

Table 1
Impacts and Mitigation Requirements for the Hidden Canyon Project (Acres)

Vegetation Community/ Land Cover Type	Project Area	Permanent Impacts[a]	FMZ[a]	Total Impacts	On-Site Preservation[b]
Diegan coastal sage scrub[c]	21.43	7.48	1.24	8.72	11.85
Mafic southern mixed chaparral[c]	2.89	0.90	0.51	1.40	1.48
Disturbed habitat	0.56	0.19	0.09	0.28	N/A
Total	**24.88**	**8.58**	**1.84**	**10.40**	**13.33**

Notes: FMZ = fuel modification zone; N/A = not applicable.

[a] A total of 3.90 acres impacted by grading is also designated as fuel modification zone.

[b] The project would avoid 12.71 acres of Diegan coastal sage scrub and 1.49 acres of mafic southern mixed chaparral; however, 0.88 acres would be located in patches too small to offer biological value. Therefore, the total on-site preservation is 13.33 acres.

[c] Considered special status by the County of San Diego (2010a).

1.1.2 Agency Review and Coordination

This document was written in collaboration with the County of San Diego, the California Department of Fish and Wildlife (CDFW), and the U.S. Fish and Wildlife Service (USFWS) to ensure that agency concerns were adequately addressed. The management of the Hidden Canyon open space preserve, as detailed in this RMP, does not interfere with mitigation and monitoring requirements mandated by CDFW, the U.S. Army Corps of Engineers (ACOE), the Regional Water Quality Control Board (RWQCB), or by any other permitting agency.

1.2 Implementation

1.2.1 Resource Manager Qualifications and Responsible Parties

A resource manager must be designated to be responsible for the long-term management and maintenance of the open space preserve. Because the Hidden Canyon open space preserve is located adjacent to the existing preserve for the Rancho Summit Estates Project, which is currently managed by The Escondido Creek Conservancy (TECC), TECC is the approved resource manager for the Hidden Canyon open space preserve.

The resource manager, TECC, was approved in writing by the County and wildlife agencies (i.e. USFWS and CDFW). Any change in the designated resource manager shall also be approved in writing by the County and wildlife agencies. Appropriate qualifications for the resource manager include but are not limited to:

- The ability to carry out habitat monitoring or mitigation activities.
- Fiscal stability, including preparation of an operational budget (using an appropriate analysis technique) for the management of this RMP.
- Having at least one staff member with a biological, ecological, or wildlife management degree from an accredited college or university, or having a Memorandum of Understanding with a qualified person with such a degree.
- Experience with habitat resource management in Southern California.

1.2.2 Financial Responsibility and Mechanism

The project applicant is responsible for all RMP funding requirements, including direct funds to support the RMP start-up tasks as well as an ongoing funding source for annual tasks, which is tied to the property to fund long-term RMP implementation. The project applicant shall establish a one-time, non-wasting endowment based on the conceptual cost estimate provided in Section 1.2.3 to fund in perpetuity the long-term management and maintenance of the Hidden Canyon open space preserve. The endowment funds shall be deposited at the San Diego Foundation or another institution approved by the County and wildlife agencies. The endowment funds shall provide distributable income only to the approved resource manager for the purposes allowed by this RMP. The endowment funds may not be used for start-up tasks assigned to the homeowners including: initial purchase and installation of signs, construction of fencing around the open space preserve and regular replacement and/or repair of fencing. Each owner shall be required by covenant to construct a fence between their property boundary and the Open Space interface. The approved resource manager shall inspect fencing monthly and notify the homeowner of any needed repairs and/or replacement. If the homeowner does not repair/replace fencing then the approved resource manager can replace and/or repair the fencing and will have the right to put a lien on the individual homeowner's property.

1.2.3 Conceptual Cost Estimate

A Property Analysis Record (PAR) has been prepared by TECC and is the basis for the biological resource management tasks identified in this RMP. Table 2 includes the biological resource management tasks that are planned for the open space preserve. Baseline surveys conducted for the open space preserve include vegetation mapping, a review of the site for wetlands and non-wetland waters, focused protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) and focused rare plant surveys (Dudek 2020).

Table 2
Resource Management Tasks

Check if Applies	Tasks	Frequency (Times per Year)	Hours Required Per Year
Biological Tasks			
✓	Update biological mapping	Once every 3 years for first 10 years, then every 10 years thereafter	4 (12 hours every 3 years)
✓	Update aerial photography	Once every 3 years for the first 10 years, then every 10 years thereafter	Included in Update Biological Mapping task
✓	Removal of invasive species	As needed	Not to exceed 65
✓	Species Management/Predator control	As needed	Not to exceed 20
✓	**Species surveys (include a separate line for each species):** 1. Monitoring surveys for coastal California gnatcatcher (*Polioptila californica californica*) 2. Focused rare plant surveys (with emphasis on known populations)	1. Twice a year 2. Once every 5 years	Included in monitoring task 8 (every 5 years)
✓	Monitoring	Monthly	48 (4 hours per month)
Operations, Maintenance, and Administration Tasks			
✓	Establish and maintain database and analysis of data	Annually	8
✓	Write and submit annual report to County and wildlife agencies	Annually	Not to exceed 5
✓	Submit review fees for County review of annual report	Annually	Based on PAR
✓	Review and, if necessary, update Management Plan	Every 5 years	4 (20 hours every 5 years)
	Construct permanent signs	This task will be handled by homeowner	N/A
✓	Replace signs	As needed, estimate 2 signs a year	Included in monitoring task
	Construct permanent fencing/gates	This task will be handled by homeowner	N/A

Table 2
Resource Management Tasks

Check if Applies	Tasks	Frequency (Times per Year)	Hours Required Per Year
	Maintain permanent fencing/gates	This task will be handled by homeowner	N/A
✓	Remove trash and debris	Monthly	Included in monitoring task
✓	Remove graffiti and repair vandalism	As needed	Included in Monitoring task
Public Use Tasks			
✓	Control public access	As needed, based on monthly monitoring visits	4
✓	Provide Neighbor Education – Community Partnership	As needed, based on monthly monitoring visits	Included in Control Public Access task
Fire Management Tasks			
	Coordinate with applicable fire agencies and access (gate keys, etc.) for these agencies	This task will be handled by homeowner	
✓	Protect areas with high biological importance	Every 5 years	This will be covered with the adaptive management for coastal California gnatcatcher and rare plants.
Post-Fire Tasks			
✓	Fire prevention and response	As needed	Included in PAR contingency funds which total 10 hours per year

Notes: N/A = not applicable; MSCP = Multiple Species Conservation Program; PAMA = Pre-Approved Mitigation Area; DEH = Department of Environmental Health; BMP = best management practice; HOA = Homeowners' Association.
Hours are estimated and may fluctuate based on on-the-ground conditions.

1.2.4 Reporting Requirements

An RMP Annual Report will be submitted to the County and wildlife agencies. The electronic annual report shall discuss the previous year's management and monitoring activities as well as management/monitoring activities anticipated in the upcoming year.

The annual report shall provide a concise but complete summary of management and monitoring methods, identify any new management issues, and address the success or failure of management approaches (based on monitoring). The report shall include a summary of changes from baseline or previous year conditions for species and habitats and address any monitoring and management limitations, including weather (e.g., drought). The report shall also address any management (changes) resulting from previous monitoring results, provide methods for measuring the success of adaptive management, include the endowment status (earnings/expenditures), and work plan for the following year .

For new sensitive species observations or significant changes to previously reported species, the annual report shall include copies of completed California Natural Diversity Database forms with

evidence that they have been submitted to the state. The report shall also include copies of invasive plant species forms submitted to the state or County.

A fee will be collected by Planning & Development Services upon submittal of the annual report for staff's review time. The RMP may also be subject to an ongoing deposit account for staff to address management challenges as they arise. Deposit accounts, if applicable, are replenished to a defined level as necessary.

1.2.5 RMP Agreement

The County will require an agreement with the applicant when an RMP is required. The RMP Agreement will be executed when the County accepts the Final RMP. The agreement will obligate the applicant to implement the RMP and provide a source of funding (i.e., a one-time deposit into a non-wasting endowment held by the TECC) to pay the cost to implement the RMP in perpetuity. The agreement shall also provide a mechanism for the funds to be transferred to the County if the resource manager fails to meet the goals of the RMP.

The agreement will specify that RMP funding or a funding mechanism be established prior to the construction or use of the property in reliance on the Habitat Loss Permit.

This agreement will be provided once the County approves the final RMP.

2 PROPERTY DESCRIPTION

2.1 Location

The Hidden Canyon project site, which includes the extent of all three parcels, is approximately 24.88 acres, and is located within northern San Diego County in the northeast corner of the of the former Perkins property which is now known as the Copper Creek Preserve. The project site is situated east of the City of Encinitas, south of the City of San Marcos, and north of the community of Rancho Santa Fe just east of Rancho Santa Fe Road off Rancho Summit Drive (see Figure 1, Project Location). The approximate center of the project is 33°4′44.835″ north latitude, 117°12′8.008″ west longitude on the U.S. Geological Survey 7.5-minute series topographic Rancho Santa Fe quadrangle map Section 04, 05, and 33, Range 3 West, Township 12 South and 13 South. The proposed project boundary is consistent with the limits of Assessor's Parcel Numbers 223-081-50, 223-081-48, and 223-081-49.

2.2 Environmental Setting

The following is summarized from the BTR for the proposed project (Dudek 2020). The entire project site is undeveloped and located within draft NCMSCP Pre-Approved Mitigation Area (PAMA)-designated lands (see Figure 2, Regional Context). The on-site elevation ranges between 586 and 813 feet above mean sea level. The project site consists of a gently sloping hilltop. Most of the project's southern, western, and northern boundaries abut existing open space, with the remainder of the eastern and northern boundaries adjacent to a small subdivision currently under development by Shea Homes. The project site is located approximately 1,000 feet to the east of the Rancho La Costa Preserve, which contains a portion of San Marcos Creek.

The predominant soil type within the project site is Exchequer rocky silt loam, 30% to 70% slopes with a small amount of San Miguel–Exchequer rocky silt loam, 9% to 70% slopes. These are metavolcanic soils that tend to support sensitive plant species.

2.3 Land Use

Land use within the open space preserve and in the surrounding areas is a mixture of undeveloped lands, residential areas to the south, and a water tank along the northern boundary (Figure 3, On-Site Open Space Preserve). The project site is entirely undeveloped and is connected to open space and existing preserves along the northern and western boundaries.

The proposed project includes the development of three residential development pads, associated driveways, and an access road. Low-water-use, native, and naturalizing plant materials will make up the landscape plant palette. Low-fuel-volume plant materials will be included in compliance with the Fire Protection Plan. As required by the County of San Diego,

the proposed project would include a 100-foot limited building zone easement that provides a buffer between the proposed preserve and development, and is located immediately adjacent to, but outside of, the proposed preserve (Figure 4, Open Space Preserve Design). The 100-foot limited building zone easement is intended to reduce the edge effects of development on preserve areas. The purpose of this easement is to preclude the need to clear or modify vegetation for fire protection purposes within the adjacent biological open space easement and prohibit the construction or placement of any structure that would require vegetation clearing within the protected biological open space for fuel management purposes. The only exceptions to this prohibition are structures that do not require fuel modification/vegetation management. For this project, the limited building zone and fuel modification zone overlap.

3 BIOLOGICAL RESOURCES DESCRIPTION

This section is based on the biological data collected for the project site, as described in the BTR prepared for the proposed project (Dudek 2020). This section only discusses the areas within the proposed open space preserve.

3.1 Vegetation Communities/Habitat Types

Two vegetation communities were identified within the open space preserve and include the following general vegetation communities: coastal sage scrub and mafic southern mixed chaparral (see Figure 3 and Table 3). The status of vegetation communities was determined using Holland (1986), as modified by Oberbauer et al. (2008), and the County's Guidelines for Determining Significance and Report Format and Content Requirements (County 2010b). Refer to the BTR for the proposed project prepared by Dudek (2020) for a more detailed description of the biological resources on site.

Table 3
Vegetation Communities and Land Cover Types within the Hidden Canyon Open Space Preserve

General Vegetation Community/Land Cover Type	Code[a]	Acres
Coastal Scrub		
Diegan coastal sage scrub (including disturbed)[b]	32500	11.85
Chaparral		
Mafic southern mixed chaparral[b]	37122	1.48
	Total[c]	**13.33**

Notes:
[a] Holland (1986) as modified by Oberbauer et al. (2008).
[b] Considered special-status by the County of San Diego (2010a).
[c] May not sum precisely due to rounding.

3.1.1 Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub is the widespread coastal sage scrub in coastal Southern California from Los Angeles into Baja California (Oberbauer et al. 2008). Diegan coastal sage scrub is a native plant community composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species. Diegan coastal sage scrub is characterized by subshrubs with relatively shallow root systems and open canopies. Within the open space preserve, the Diegan coastal sage scrub is composed primarily of four shrub species: black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and laurel sumac (*Malosma laurina*). Approximately 11.85 acres of Diegan coastal sage scrub occurs within the open space preserve (Figure 3).

Areas mapped as Diegan coastal sage scrub within the project site are dominated by California sagebrush. The *Artemisia californica* (California sagebrush scrub) alliance has a rank of G5S5 in CDFW (CDFG 2010) meaning it is globally secure and secure in the state. Diegan coastal sage scrub is not considered special-status by CDFW; however, it requires mitigation per the County Report Format and Content Requirements for Biological Resources (County 2010a).

3.1.2 Mafic Southern Mixed Chaparral (37122)

Mafic southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that grow to about 6 to 10 feet tall and form dense often nearly impenetrable stands. The plants of this association are typically deep rooted. This habitat occurs on dry, rocky, often steep north-facing slopes with little soil. As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by such representative species as chamise (*Adenostoma fasciculatum*) and mission manzanita (*Xylococcus bicolor*). Mafic southern mixed chaparral occurs on mafic or metavolcanic soils.

The chaparral within the open space preserve is dominated by wart-stemmed ceanothus (*Ceanothus verrucosus*; California Rare Plant Rank [CRPR] 2B.2 and County List B[1]), laurel sumac, and California buckwheat. Approximately 1.48 acres of mafic southern mixed chaparral occur within the open space preserve (Figure 4).

3.2 Jurisdictional Wetlands and Waters

The results of the jurisdictional assessment conducted by Dudek biologists in 2016 and 2018 show that there is one potentially jurisdictional 1-foot-wide to 3-foot-wide ephemeral stream channel within the open space preserve (Figure 3). Although this ephemeral stream channel appears to be erosional (i.e., the ordinary high water mark features are not consistent throughout) and does not have an overlapping National Hydrography Dataset flowline, the ephemeral stream channel does convey flows into a larger channel downstream that would provide connectivity to a jurisdictional resource. Therefore, the approximately <0.01-acre (413-linear-foot) ephemeral stream channel would be considered a non-wetland water or streambed potentially under ACOE, RWQCB, and CDFW jurisdiction. There are no jurisdictional wetland or riparian areas within the open space preserve. Based on the lack of hydric soils and hydrophytic vegetation in the ephemeral channel and the presence of well-drained soils, the ephemeral channel does not have the biological functions of a wetland nor does it have populations of wetland dependent species, and therefore it is not considered a resource regulated by the County.

[1] California Rare Plant Rank (CRPR; formally CNPS list) as listed in *California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2018). Plants categorized as County List B are rare, threatened, or endangered in California, but more common elsewhere (County of San Diego 2010a).

3.3 Plant Species

A total of 133 vascular plant species, consisting of 97 native species (73%) and 36 non-native species (27%), were recorded within the project site during the 2019 plant surveys. Of that total, two sensitive plant species were directly observed within the open space preserve: 3.21 acres (approximately 93 individuals) of wart-stemmed ceanothus (List B); and 0.28 acre of ashy spike-moss (*Selaginella cinerascens*, List D).

3.4 Fauna

The open space preserve supports habitat for common and special-status upland species. Chaparral and coastal scrub within the project area provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Additionally, the open space preserve provides cover and foraging opportunities for wildlife species, including reptiles and mammals.

There were 49 species observed in the project site during the 2005 and 2018 focused surveys. Of the total species observed, 47 native species (96%) and 2 non-native species (4%) were recorded, 6 of which are considered special status according to the County guidelines. The following special-status species were observed within and in the direct vicinity the project site: Cooper's hawk (*Accipiter cooperii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), northern harrier (*Circus hudsonius*), red-shouldered hawk (*Buteo lineatus*), coastal California gnatcatcher, and mule deer (*Odocoileus hemionus*). Although Cooper's hawk, northern harrier, and red-shouldered hawk were observed foraging adjacent or within the project site, these species are not expected to nest in the project site due to the lack of suitable nesting habitat.

3.5 Habitat Connectivity and Wildlife Corridors

The project site is entirely within draft NCMSCP PAMA-designated lands and is surrounded by open space and connected to existing preserves along the northern and western boundaries, which could allow for wildlife movement (Figure 2). Due to the surrounding open space, the project site would be considered part of a larger habitat, block but not a wildlife corridor or linkage. The project site has high habitat value according to Figure 3-1 in the draft NCMSCP Habitat Evaluation Model (County of San Diego 2009) given that it supports coastal California gnatcatcher and other smaller to mid-size wildlife species (e.g., birds, reptiles, rabbits, mule deer, or coyote [*Canis latrans*]). These wildlife species would be expected to use the habitat that is located within the adjacent open space preserves for both year-round habitat as well as dispersal corridors during migration or dispersal to new territories. The project site does not include any forested habitats or large drainages, which provide adequate cover for larger wildlife species (i.e., bobcat [*Lynx rufus*] or cougar [*Puma concolor*]), so it is unlikely that these species would occur.

As stated above, the project site does not function as a wildlife corridor or provide for habitat connectivity. Since the project site is adjacent to existing development associated with residential development and water tank along the northern boundary and the residential development along the eastern boundary, connectivity has already been restricted. Habitat connectivity into adjacent open space preserve areas along the western and northern boundaries of the project site would continue to occur after project implementation. Additionally, 13.33 acres of the project site (53%) will be conserved as an open space preserve, which would allow for continued use through this area (Figure 3). The loss of 10.12 acres of native habitat resulting from the proposed project will not preclude connectivity between areas of high habitat value within the project site vicinity.

3.6 Overall Biological Value

As described in the above sections, the on-site open space preserve supports sensitive upland vegetation communities, rare plants, and special-status wildlife species, including the federally threatened coastal California gnatcatcher (Figure 3). It is adjacent to contiguous areas of undeveloped habitat, providing habitat connectivity to PAMA areas and adjacent preserves (Figure 2).

3.7 Enhancement and Restoration Opportunities

There are no areas that will be temporarily impacted by the proposed project; therefore, revegetation is not proposed for areas within the open space preserve. As stated in Section 3.6, Overall Biological Value, the open space preserve contains high-quality, undisturbed upland habitat and enhancement of the existing habitat is not required to meet the project's mitigation requirements.

4 BIOLOGICAL RESOURCE MANAGEMENT

This RMP identifies activities to manage and preserve the sensitive biological resources within the open space preserve. The main goal is to preserve the 13.33 acres of on-site open space and manage the sensitive plant and wildlife species it supports through vegetation mapping, species specific surveys and management, invasive plant treatment, and public access control.

4.1 Management Goals

Goal: To preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the open space preserve.

A baseline inventory has been collected during the evaluation of the project under the California Environmental Quality Act. As such, ongoing species and habitat monitoring shall occur in accordance with County and regional standards. These standards typically include vegetation mapping every 3 years for the first 10 years and then every 10 years thereafter. Habitat maintenance may be required if vegetation mapping indicates habitat conversion that is detrimental to the preservation of native ecosystem functions. Specific management tasks are described in Section 4.2, Biological Management Tasks.

4.2 Biological Management Tasks

The biological management tasks associated with the open space preserve are outlined in Table 2 of this RMP. Start-up tasks conducted by the resource manager shall include sign installation around the on-site open space preserve (where appropriate) and database compilation. Long-term tasks involve the management and maintenance of the open space preserve in perpetuity, including habitat monitoring and mapping, exotic species control as-needed, and general monitoring and reporting. These habitat management tasks commence immediately upon initiation of long-term management by the resource manager. This section includes a description of each of the tasks required for management of the open space.

4.2.1 Update Biological Mapping and Aerial Photography

Every 3 years (for the first 10 years and then every 10 years thereafter), the resource manager will update the vegetation map on a current aerial photograph of the site. This task includes updating the vegetation mapping over the entire open space preserve and updating the aerial photography.

4.2.2 Removal of Invasive Species

The resource manager will map occurrences of perennial, non-native species that have a rating of moderate or high by the California Invasive Plant Council. Weed control measures will be implemented, as necessary, to prevent expansion of existing or establishment of new exotic species in

the open space preserve. Manual weeding methods shall be used to the extent practicable. Perennial and biennial exotic plants shall be removed by cutting weed stems off at or below ground level or pulling seedlings manually. Annual weeds will be manually pulled prior to producing mature seed. All cuttings or pulled weeds shall be exported from the open space preserve and disposed of properly. The project landscape planting palette shall be reviewed and approved by the project biologist prior to the issuance of any permits for the project.

The use of herbicide and pesticides for weed and vector control is not proposed within the open space preserve. However, if the use of herbicide is deemed necessary, application should be minimal and may only occur in compliance with all federal and state laws under direct supervision of the resource manager and in consultation with CDFW. Use of chemical herbicides should be determined in coordination with the County Department of Environmental Health. All herbicide use will be applied by backpack sprayers or stump painting directly on target weeds and will involve short-duration, biodegradable chemicals.

4.2.3 Species Surveys

Several special-status species were documented throughout the project site, including in the open space preserve. Special-status plant populations documented within the open space preserve include wart-stemmed ceanothus and ashy spike-moss. Numerous special-status wildlife species were documented in the project area and are listed in Section 3.4, Fauna. Long-term management of the open space preserve would ensure high quality habitat in-perpetuity for these species. Additional protective measures shall be implemented for the coastal California gnatcatcher and special-status plants based on the mitigation requirements outlined in the BTR.

Protective measures to monitor and manage coastal California gnatcatcher and special-status plant species shall be implemented to help ensure the persistence of these species in the open space. The following surveys shall be conducted, during the appropriate time of year, every 5 years for special-status plant and twice a year for coastal California gnatcatcher.

- **Coastal California gnatcatcher.** Two site visits will occur annually in February and March (TECC can determine the best timing for these two visits as long as it coincides with the appropriate time of year for this species). These two surveys will be combined with the monthly monitoring visits.
- **Rare plant surveys.** Rare plant surveys shall be conducted within open space, with emphasis on surveying the known locations of rare plants. Additional locations of plants that are state- or federally listed, have a CRPR 1B and 2, and/or are County lists A–D will be recorded. All special-status species locations will be mapped and the population estimated.

4.2.4 Species Management

Based on the species surveys described earlier, management tasks for the rare plant populations and special-status wildlife species may be required. This includes weed control and predator control. Predator control is not anticipated at this time; however, if predators such as feral cats, raccoons (*Procyon lotor*), or other species cause nest failure or other detrimental effects on wildlife species, trapping or other predator control methods may be used.

4.2.5 Monitoring

Prior to any clearing, grading, or construction on the project site, TECC shall meet with the contractor(s) responsible for site development to discuss efforts by all involved to avoid impacts to adjacent areas of undisturbed, sensitive native habitat. The intent of this meeting shall be to inform the attendees of the sensitivity of the habitat in this area, and thus presumably minimize losses. It should be noted that the project applicant is responsible for the initial management of the open space preserve during construction. Funding for biological monitoring during construction is not provided by the endowment.

Long-term monthly monitoring, as required by the County, of the open space preserve to document any changes will be conducted by the resource manager. TECC shall visit the open space each month in order to monitor the overall conditions of the open space and determine if any management tasks are required. During the first monitoring visit TECC shall place signs demarcating the open space preserve. The monitoring program will analyze vegetative growth patterns, changes in floristic composition or diversity, and other factors relating to habitat viability. Management tasks may include any of the following: trash or debris removal, graffiti and/or vandalism cleanup, checking for off-roading activities, and replacement of signs demarcating the open space preserve.

4.3 Adaptive Management

The resource manager is responsible for interpreting the results of site monitoring to determine the ongoing success of the RMP. If it is necessary to modify the plan between regularly scheduled updates, plan changes shall be submitted to the County and wildlife agencies for approval, as required.

4.4 Operations, Maintenance, and Administrative Tasks

Table 2 and Section 4.2, Biological Management Tasks, describe a list of tasks such as vegetation mapping, and regular visits to be conducted by the resource manager. Regular visits will occur monthly and annually.

4.4.1 Goals

Goal: To manage, maintain, and administer the proposed project in an ongoing setting to ensure the integrity of the preserved open space preserve.

4.4.2 Tasks

The general operations, maintenance, and administrative tasks to be conducted by the resource manager will include the tasks noted in the following subsections.

4.4.2.1 Annual Monitoring Reports

An annual monitoring report will be submitted to the County and the wildlife agencies that will summarize the overall condition of vegetation communities and sensitive species in the open space preserve, outline proposed management tasks for the following year, and provide results of management activities proposed in the previous report. Submitted annually by the end of January, this annual monitoring report will compare the most recent data with those collected in previous years, evaluate sensitive species status and local wildlife corridor use, and outline appropriate remedial measures, per County guidelines. Site photographs from fixed photo documentation points shall be provided as part of the monitoring reporting effort. These shall clearly depict the height and cover of the native vegetation, condition of the fences and signs, and any problems not needing emergency response. The annual monitoring report will also address any adaptive management (changes) resulting from previous monitoring results, and provide a methodology for measuring the success of adaptive management. Copies of California Natural Diversity Database forms submitted to the state for any new sensitive species observations or significant changes to species previously reported will be included, as will copies of invasive plant species forms submitted to the state or County. Fees for County review will also be included with submittal of the annual report.

The results of all updated vegetation mapping (every third year) and sensitive species monitoring will be included in the appropriate annual monitoring reports.

4.4.2.2 Management Plan Review

This RMP will be reviewed every 5 years to determine the need for revisions or updates to reflect any changes in site conditions and modifications to maintenance/recovery efforts. Due to changing conditions within the open space preserve, it may be necessary to revise the tasks outlined in this plan to ensure continued success of the stated goals.

4.4.2.3 Access Control

Access to the open space preserve shall only include the resource manager and other authorized agents. Exceptions to this shall be in an emergency or as otherwise specified by the resource manager in consultation with resources agencies and the County. Access to the open space preserve shall primarily occur during the dry season to prevent impacts to annual vegetation. To prevent human-induced degradation of the open space preserve due to illegal occupancy, trespassing (especially off-highway vehicle [OHV] activity), removal of resources, or dumping of trash or debris, the resource manager will restrict public access to the open space preserve. Permanent signage will be posted consistent with California Penal Code requirements at locations of unauthorized trails entering the open space preserve and shall be maintained by the resource manager. Figure 4 shows the proposed sign locations. Open space signage shall be installed along the open space boundaries that interface with other open space, and where open space is adjacent to roadways and residential areas and shall be corrosion resistant, a minimum of 6 inches by 9 inches, on posts not less than 3 feet in height from the ground surface, and must state the following:

Sensitive Environmental Resources
Area Restricted by Easement
Entry without express written permission from the County of San Diego
is prohibited. To report a violation or for more information about easement
restrictions and exceptions, contact the County of San Diego,
Planning & Development Services
Reference: (PDS2016-LDGRMJ-30097)

The signs must be in good condition and visible at all times, and must be replaced, repaired, and/or cleaned as directed by TECC.

4.4.2.4 Fencing/Barriers

Because the open space preserve is located adjacent to other undeveloped land, perimeter fencing around the open space preserve is not planned. Fencing will be placed along the edge of grading for each of the three pads and the preliminary fencing is shown on Figure 4. The final design and location of the fencing will be given to TECC. The fencing can be any material but glass or other transparent material that would potentially lead to bird-strike issues. The main entrances shall be gated to keep public off the road providing access to the residential area and open space preserve, as shown on Figure 4.

4.4.2.5 Illegal Occupancy

Currently, there is no obvious illegal use of the project site or open space preserve. However, the resource manager will survey the open space preserve for evidence of illegal access, encroachments (i.e., landscaping and/or play areas by adjacent owners), and encampments concurrently with other

monthly site management activities and file a report with the local Sheriff's Department, if necessary, to ensure the open space preserve remains free of human occupancy.

4.4.2.6 Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the open space preserve is prohibited unless determined to be beneficial to the management of the open space preserve and allowed by the wildlife agencies. Hunting is also prohibited in the open space preserve. The resource manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the open space preserve to the USFWS, CDFW, County, and/or the San Diego County Sheriff's office. The resource manager may allow and supervise seed collection and plant cuttings as part of revegetation efforts within the open space preserve and/or in nearby areas. Any such collected plant materials shall be performed under the direct supervision of the resource manager and should be limited to such that is necessary and in accordance with state law to ensure successful revegetation while not adversely affecting local plant populations.

4.4.2.7 Trash Removal and Vandalism Repair

The resource manager will conduct general trash removal and removal of illegally dumped material within the open space preserve during regular monthly monitoring site visits. All litter shall be removed from the open space preserve. The handling, transport, and disposal of any hazardous materials or hazardous wastes found in the open space preserve shall be subject to all applicable local, state, and federal regulations. The regulations dictate the qualifications of the personnel and the type of methods and equipment used for removal of hazardous material. Notification of any toxic spills or unlawful dumping of hazardous wastes in the open space preserve shall be immediately reported to the County and to CDFW.

Additionally, damage caused by vandalism or removal of signs and/or fencing will be repaired immediately. Upon initiation of the open space preserve, existing trash will be removed to provide for a clean baseline.

4.5 Public Use Tasks

The open space preserve will not include public trails or facilities. The main entrance, which allows current access to the existing trails within the vicinity of the open space preserve, shall be gated to exclude public entry. The open space preserve is intended to serve primarily as a habitat preserve and as such is not compatible with public use activities. Existing unsanctioned trails, used mainly by bicycles, will be decommissioned, blocked with fencing, and signage will be installed prior to turnover to the resource manager. Activities that will be specifically prohibited include:

- Use of herbicides (except to remove non-native species, as necessary), pesticides, rodenticides, biocides, fertilizers, or other agricultural chemicals
- Use of OHVs and any other motorized vehicles except in the execution of management duties
- Grazing or other agricultural activity of any kind
- Recreational activities including, but not limited to, horseback riding, hiking, biking, target shooting, hunting, or fishing
- Commercial or industrial uses
- Construction, reconstruction, or placement of any building or other improvement, billboard, or sign
- Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids, or any other material
- Planting, introduction, or dispersal of non-native or exotic plant or animal species
- Altering the general topography of the open space preserve, including but not limited to building of roads and flood control work
- Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required by federal, state, or local law or by governmental order for (1) emergency fire breaks, (2) maintenance of existing roads, (3) prevention or treatment of disease, or (4) required mitigation programs
- Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the open space, except as specified for restoration activities, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or subsurface waters

4.6 Fire Management Element

Fire is a natural ecological component of the Mediterranean-type climate of San Diego County. As required by the County of San Diego, the proposed project would include a 100-foot limited building zone easement that provides a buffer between the proposed preserve and development,

and is located immediately adjacent to, but outside of, the proposed preserve. The 100-foot limited building zone easement is intended to reduce the edge effects of development on preserve areas. The purpose of this easement is to preclude the need to clear or modify vegetation for fire protection purposes within the adjacent biological open space easement and prohibit the construction or placement of any structure that would require vegetation clearing within the protected biological open space for fuel management purposes. Contingency funds will be used for prevention of and is response to any catastrophic events (e.g. flooding, fire, or severe unnatural erosion) that occur within the on-site preserve resulting in significant habitat modifications.

As a component of general monitoring responsibilities, and especially following severe storms, fires, floods or other significant disturbance events, the resource manager shall inspect the preserve for erosion problems. For the purposes of this RMP, significant unnatural erosion is erosion that affects an area that is greater than 100 square feet and over 6 inches in depth, and/or erosion that may affect water quality and wetland resources or lead to instability of slopes or the loss/conversion of habitat. Should significant erosion be detected, the resource manager will evaluate the need for repair; the resource manager's investigation will include an attempt to identify the cause(s) and means by which the damage has occurred. The PAR provides a lump sum contingency budget to address potential post-fire erosion issues in the event of a wildfire. In the event of severe erosion with potentially costly remedies not anticipated by the RMP or PAR, funding to implement erosion control will not be derived from annual management funds. In this case, the resource manager will consult with the County to determine a plan of action that will include the identification of funding sources. Minor incidents of erosion (e.g., the formation of rivulets through upland areas) shall be left untreated unless it is perceived that the erosion will cause the loss of sensitive habitat and/or create a hazardous situation that would constitute a threat to human health and safety.

The degree of urgency to remediate erosion problems within the preserve will depend on the severity of the erosion, how quickly it is progressing, and what will happen until it is remediated.

In the event that erosion becomes a recurring problem or periodic but severe, the resource manager will develop an erosion control plan. The plan will address (1) erosion causes and (2) the type and placement of physical features to counteract or stem erosive forces, and may include (3) preparation of a conceptual plan to revegetate affected areas with native seed. If the source of an erosion problem within the preserve lies outside the preserve, the cause shall be identified and the responsible party or parties made accountable.

5 MANAGEMENT CONSTRAINTS

This RMP has been written to satisfy the requirements of the County and attempts to identify possible issues in the future; however, unforeseeable changes may occur that are out of the control of the resource manager. For example, changes in rainfall patterns may affect the populations of sensitive plant and wildlife species within the open space preserve. Likewise, changes in other environmental factors such as air pollution, hazardous waste runoff, and erosion could have detrimental effects on the habitat within the management areas. An adaptive management approach will be taken to provide the flexibility to address unforeseen conditions.

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6 REFERENCES

CDFG (California Department of Fish and Game). 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program. Sacramento, California: CDFG. September 2010. Accessed July 2014. http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp.

CNPS (California Native Plant Society). 2018. Inventory of Rare and Endangered Plants (online edition v8-03 0.45). Sacramento: CNPS: Rare Plant Program. Accessed August 2018. www.rareplants.cnps.org.

County of San Diego. 2007. "Ordinance No. 9842: An Ordinance Codifying and Amending the Resource Protection Ordinance, Relating to Wetlands, Prehistoric and Historic Sites, Agricultural Operations, Enforcement, and Other Matters." March 21, 2007.

County of San Diego. 2009. *Preliminary Public Review Draft: Multiple Species Conservation Program North County Plan*. Volume I. February 19, 2009. Accessed August 2018. https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/MSCPNorthCountyPlan.pdf

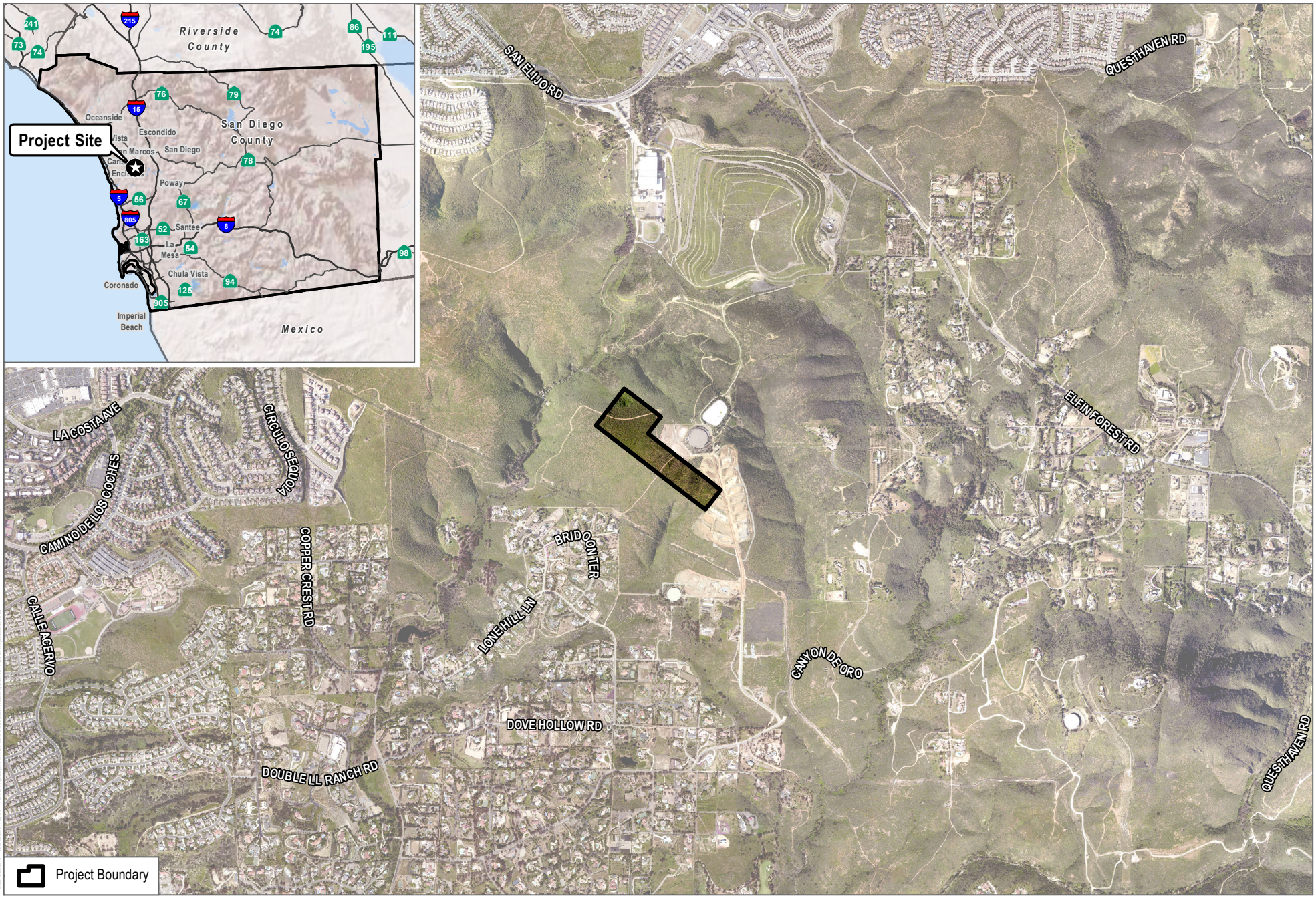
County of San Diego. 2010a. *County of San Diego Report Format and Content Requirements: Biological Resources*. Fourth Revision. Land Use and Environment Group, Department of Land Use and Planning, Department of Public Works. September 15, 2010. https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Biological_Report_Format.pdf

County of San Diego. 2010b. *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources*. Fourth Revision. Land Use and Environment Group, Department of Land Use and Planning, Department of Public Works. September 15, 2010. https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/Biological_Guidelines.pdf

Dudek. 2020. *Biological Resources Technical Report for the Hidden Canyon Project*. Final. Prepared for the County of San Diego, Department of Planning & Development Services. Encinitas, California: Dudek. January 2020.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California Department of Fish and Game. October 1986.

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.



SOURCE: Shapouri 2018; SANGIS 2017, 2018

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Resource Management Plan for the Hidden Canyon Project

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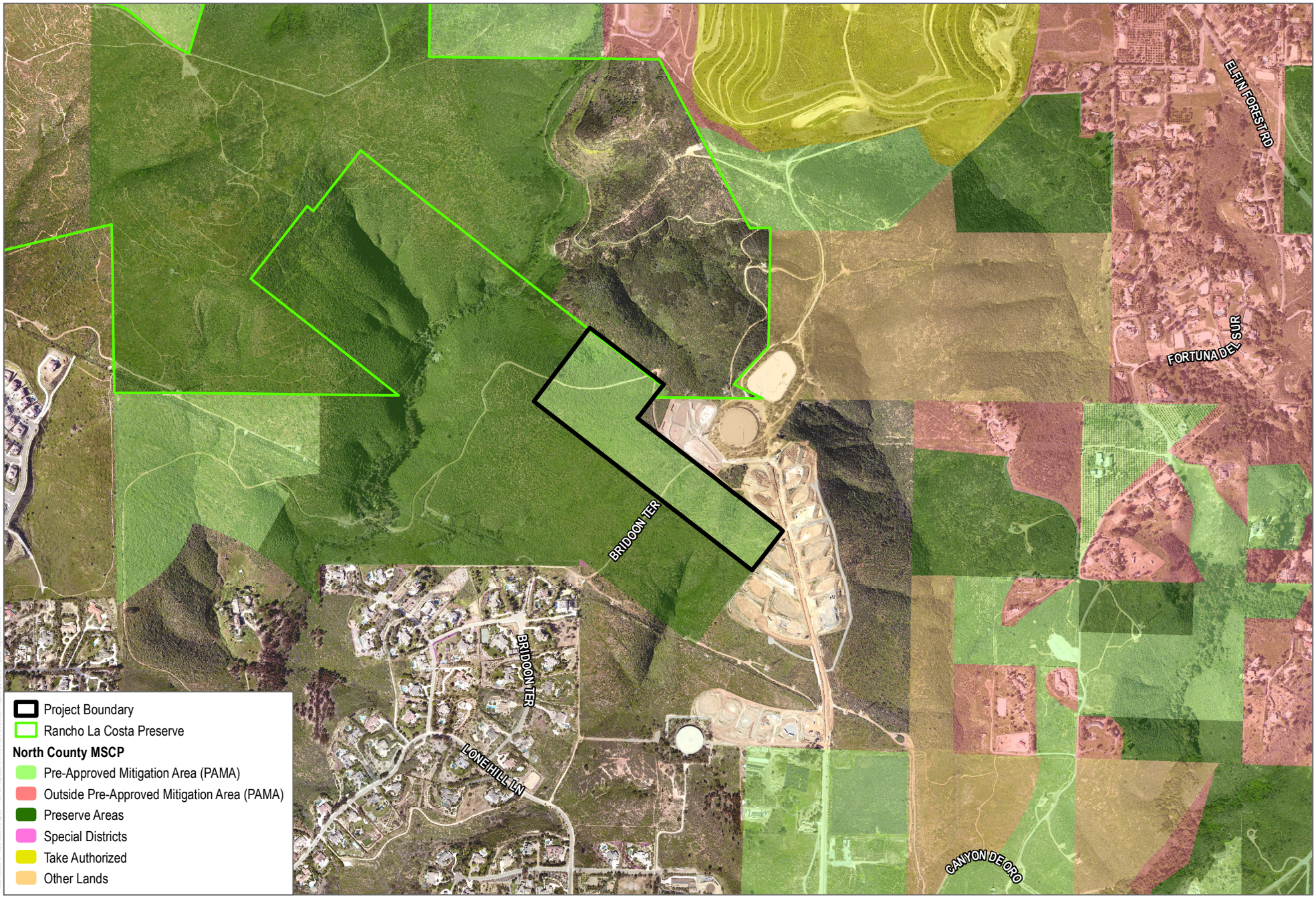

SOURCE: SANGIS 2017, 2019

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FIGURE 2

Regional Context

Resource Management Plan for the Hidden Canyon Project

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SOURCE: Shapouri, 2018; SANGIS 2017, 2019

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FIGURE 3

On-Site Open Space Preserve

Resource Management Plan for the Hidden Canyon Project

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SOURCE: Shapouri, 2018; SANGIS 2017, 2019

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FIGURE 4

Open Space Preserve Design

Resource Management Plan for the Hidden Canyon Project

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