FINAL

Biological Resources Report
for the
Greenhills Ranch II Project;
PDS2016-SPA-16-001

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GLOSSARY OF TERMS AND ACRONYMS

Acronyms	Definition
ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
AMSL	above mean sea level
AOU	American Ornithologists' Union
BCC	Bird of Conservation Concern
BMO	Biological Mitigation Ordinance
BMP	Best Management Practice
BRCA	Biological Resource Core Areas
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of San Diego
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
CWA	Clean Water Act
EHC	Endangered Habitats Conservancy
EO	Executive Order
FESA	Federal Endangered Species Act
FP	Fully Protected
GIS	Geographic Information System
I-8	Interstate 8
LRPC	Lakeside's River Park Conservancy
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Program
NABA	North American Butterfly Association
NCCP	Natural Communities Conservation Plan
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OHWM	ordinary high water mark
RDA	Rural Development Area
RPO	Resource Protection Ordinance
RAA	Resource Avoidance Area
RWQCB	Regional Water Quality Control Board
SAMP	Special Area Management Plan
SSC	Species of Special Concern
SR-67	State Route 67
USDA	U.S. Department of Agriculture
USFWS	United States Fish and Wildlife Service

Acronyms	Definition
USGS	United States Geological Service
WL	Watch List

EXECUTIVE SUMMARY

This biological technical report was prepared to evaluate the proposed Greenhills Ranch II project. The study area occupies 36.20 acres on-site and 0.86 acres off-site for a total of 37.06 acres in the Lakeside Community Planning Area of San Diego, California. The project site is within the Lake Jennings/Wildcat Canyon Core Area, an existing regional core within the County's Multiple Species Conservation Program, and is within a federal and state Pre-approved Mitigation Area.

The Proposed Project is a major subdivision consisting of 63 clustered, single-family residential lots, brush management, a private street system, horse/hiking trail, and dedication of biological open space. Access to the site would be provided by Audubon Road and from a new road off of Lake Jennings Park Road.

Vegetation mapping, a focused botanical survey, and a jurisdictional delineation were conducted by Dudek in October 2015. A general wildlife survey was also conducted by Dudek in December 2015. Focused surveys for special-status plants, California gnatcatcher and Quino checkerspot butterfly were conducted in 2016. This report documents the results of Dudek's field work as well as an analysis of the impacts related to the Proposed Project.

Based on species composition and general physiognomy, two plant communities (including disturbed forms) were identified on the approximately 37-acre study area that also includes 0.86 acre of off-site impact that is outside of the property. These plant communities can be generalized to include: Diegan coastal sage scrub (including disturbed) (25.76 acres), and Riversidian upland sage scrub (0.89 acre). Disturbed habitat and developed land covers also occupy a large portion of the site (10.41 acres).

Based on the jurisdictional delineation, approximately 0.04 acre (942 linear feet) of non-wetland waters (ephemeral stream channels) under U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) jurisdiction are found within the study area.

The vegetation mapping and special-status surveys resulted in the detection of three special-status plant species: San Diego County viguiera (*Bahiopsis laciniata*), San Diego sagewort (*Artemisia palmeri*), and ashy spike-moss (*Selaginella cinerascens*). General wildlife surveys resulted in the detection of two special-status wildlife species, the federally listed threatened coastal California gnatcatcher (*Polioptila californica californica*), and California species of special concern coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis)* which was observed foraging on site and potential habitat for several other special-status wildlife species.

The Greenhills Ranch II Project will result in permanent direct impacts to 19.99 acres, including 12.05 acres of 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 less than significant includes 8.89 acres of open space preserve designation, conservation of native vegetation, biological monitoring, best management practices, weed control, dust control, fire management, and management of the open space. Mitigation within an adjacent off-site parcel for a total of 10.23 acres is also included in order to fully mitigate project impacts in accordance with MSCP.

1 INTRODUCTION

1.1 Purpose of the Report

The purposes of this biological resources report are to provide the following items: (1) describe the existing conditions of biological resources within the study area in terms of vegetation, jurisdictional resources, flora, wildlife, and wildlife movement; (2) discuss potential impacts to biological resources that would result from implementation of the Proposed Project and describe those activities 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) and the County of San Diego's (County) *Guidelines for Determining Significance and Report Format and Contents Requirements* (County of San Diego 2010a), County Biological Mitigation Ordinance (BMO) (County of San Diego 2010b), and the South County Subarea Plan (County of San Diego 1997).

1.2 Project Location and Description

The Greenhills Ranch II Project (study area) is located in the Lakeside Community Plan area within unincorporated San Diego County, California (Figure 1). The study area lies southwest of Lake Jennings, west of Lake Jennings Park Road, north of the intersection of Adlai Road and Audubon Road, east of Lakeview Road in Lakeside (Figure 2). The study area includes Assessor Parcel Numbers (APNs) 395-151-16, and 73; 395-160-15; and 398-400-01, 08, 09, 20, 54, and 55. The project proposes the construction of 63 lots for single family residential homes within the 37.06-acre study area that includes the 36.20-acre on-site property as well as 0.86 acre of off-site impacts.

1.3 Survey Methodologies

1.3.1 Literature Review

Special-status biological resources present or potentially present on site were identified through an extensive literature search using the following sources: U.S. Fish and Wildlife Service (USFWS) (2015), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and special status species lists (CDFW 2015a-e), and California Native Plant Society's (CNPS) *Online Inventory of Rare and Endangered Vascular Plants* (2016). The literature review also included review of the list of plant and wildlife species covered under the San Diego County Multiple Species Conservation Program (MSCP) Plan (County of San Diego 1998). General information regarding wildlife species present in the region was obtained from Unitt (2004) for birds, Bond (1977) for mammals, Stebbins (2003) for reptiles and amphibians, and Emmel and Emmel (1973) for butterflies. The *Soil Survey, San Diego Area, California Part 1*

(Bowman 1973) also was reviewed to identify potentially occurring special-status plants based upon 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 *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008).

In terms of regional preserve planning efforts, the study area is located within the County of San Diego and within the South County MSCP, Metro-Lakeside-Jamul Segment (County of San Diego 1997). Therefore, the County guidelines and BMO (County of San Diego 2010a-b) were consulted to ensure consistency with local conservation efforts, goals, and policies.

1.3.2 Field Reconnaissance

Dudek conducted vegetation mapping, a special-status plant survey, and a jurisdictional delineation in October 2015, and general wildlife survey in December 2015 for the Greenhills Ranch II Project. Dudek conducted surveys for special status wildlife in 2016 and a special-status plant survey in May 2016. Table 1 lists the dates, conditions, and survey focus for each survey performed.

Table 1
Schedule of Surveys

Date	Hours	Personnel[1]	Focus	Conditions
10/30/15	0730-1230	AT, SG	Jurisdictional Delineation, Vegetation mapping, Special-Status Plant Survey	54˚-85˚F; 0% cloud cover (cc); 0-10 miles per hour (mph) wind
12/3/15	0720-0930	PML	General Wildlife Survey	53˚-71˚F; 0-10% cc; 0-2 mph wind
2/23/16	0850-1505	PML	Quino Checkerspot butterfly	65-82 °F, 0-30% cc, 1-4 mph winds
2/29/16	0820-1430	PML	Quino Checkerspot butterfly	65-92°F, 0% cc, 0-6 mph winds
3/8/16	0925-1530	PML	Quino Checkerspot butterfly	63-73°F, 0% cc, 0-5 mph winds, 6-8 mph gusts
3/17/16	0800-1405	PML	Quino Checkerspot butterfly	75-85°F, 0% cc, 0-5 mph winds, 6-10 mph gusts
3/23/16	0825-1430	PML	Quino Checkerspot butterfly	65-84°F, 0% cc, 0-5 mph winds
3/31/16	0810-1415	PML	Quino Checkerspot butterfly	61-70°F, 0-5% cc, 0-5 mph winds, 6-12 mph gusts
5/20/16	0725-1150	KD, EW	Special-Status Plant Survey	61˚-70˚F; 10-30% cloud cover; 0-7 mph wind
08/11/16	0710-1050	PML	California gnatcatcher	68 - 79° F; 0% cc; 0–4 mph winds
08/18/16	0700-1050	PML	California gnatcatcher	70 - 89° F; 80% - 20% cc; 0–2 mph winds
08/26/16	0630-1015	PML	California gnatcatcher	69 - 80° F; 100% - 0% cc; 0–4 mph winds
11/2/17	1229-1521	CFA	Review delineation and map erosional features	71–73°F; 50–80% cloud cover; 0–1 mph wind

[1] AT = Andy Thomson, SG = Scott Gressard, PML= Paul Lemons, KD=Katie Dayton, EW=Emily Wier, CFA = Callie Ford Amoaku

1.3.3 Resource Mapping

Vegetation communities and land uses on and within 100 feet of the study area were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet), aerial photograph–based field map of the study area. Following completion of the field work, 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.

Consistent with the latest County of San Diego *Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a), vegetation community classifications used in this report follow Holland (1986) and Oberbauer et al. (2008), where feasible, with modifications to accommodate the lack of conformity of the observed communities to those of Holland (1986) or Oberbauer et al. (2008). Areas on site that supported less than 20% native plant species cover were mapped as disturbed habitat, and areas that supported at least 20% native plant species, but fewer than 50% native cover, were mapped as a disturbed native vegetation community (e.g., disturbed Diegan coastal sage scrub).

1.3.4 Flora and Fauna

During the October 2015 through 2016 surveys all plant species encountered were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) follow the *California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2016). 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 2015) and common names follow the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Plants Database (USDA 2015a). A list of plant species observed within the study area during surveys is presented in Appendix A.

All wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded. Binoculars (10×50 magnification) were used to aid in the identification of observed wildlife. In addition to species actually detected, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union (AOU) (2015) for birds, Wilson and Reeder (2005) for mammals, North American Butterfly Association (NABA) (2001) or San Diego Natural History Museum (2002) for butterflies, and Moyle (2002) for fish. A list of wildlife species observed within the study area is presented in Appendix B.

1.3.4.1 Focused Surveys for Special-Status Plants

Dudek recorded all special-status plant species during the vegetation mapping and survey on October 30, 2015 (Table 1); however, due to the late timing of the survey, only conspicuous perennial species were detectable. Therefore, a second focused survey for special-status plants was conducted May 20, 2016 (Table 1). Field survey methods conformed to the survey methods described in the County's Report and Format Guidelines (County 2010a), CNPS Botanical Survey Guidelines (CNPS 2001); Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000); and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFG 2009). All plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. Three special-status plant species were recorded on site and are presented in Figure 5.

1.3.4.2 Focused Surveys for Special-Status Wildlife

Dudek conducted focused USFWS protocol-level surveys for the coastal California gnatcatcher (*Polioptila californica*), and for Quino checkerspot butterfly (*Euphydryas editha quino*) in 2016. During the December 2015 survey, the entire study area was surveyed on foot for general wildlife, by walking slow meandering transects. This visit provides a winter migrant survey review and species list.

Focused Quino checkerspot butterfly surveys were conducted over six weeks between February 23, 2016 and May 31, 2016 per the USFWS-approved 2016 Building Industry of America (BIA) deviation from the Fish and Wildlife Service's 2014 Quino Checkerspot Butterfly Survey Guidelines (BIA 2016). All survey visits were conducted by quino-permitted biologist Paul M. Lemons (TE051248-5). Each weekly survey was conducted at a rate no greater than 5 to 10 acres per hour (i.e., in accordance with the USFWS-approved BIA protocol). A 200-scale (1 inch = 200 feet) aerial map of the site was used for mapping potential host plant populations and Quino, if observed. Binoculars (10x50) were used to aid in detecting and identifying butterfly and other wildlife species. GPS units also were available for recording locations of host plant populations and special-status species. The survey methods consisted of slowly walking roughly parallel transects spaced approximately 30 feet (10 meters) apart throughout all habitats within the survey area including Diegan coastal sage scrub (disturbed and non-disturbed) and Riversidean sage scrub. Survey routes were arranged to thoroughly cover the survey area. Surveys were conducted only during acceptable weather conditions (i.e., surveys were not conducted during fog, drizzle, or rain; winds greater than 15 miles per hour measured 4–6 feet above ground level for more than 30 seconds; temperature in the shade at ground level less than 60°F on a clear, sunny day; or temperature in the shade at ground level less than 70°F on an overcast or cloudy day.

Survey times, personnel, and conditions during the Quino checkerspot butterfly survey are shown in Table 1.

The presence/absence focused survey for California gnatcatcher was conducted for the project between August 11 and 26, 2016, under the authorization of permit holder Paul Lemons (Permit No. TE051248-5). The surveys were conducted according to the schedule provided in Table 1. The site is within an enrolled Natural Communities Conservation Plan (NCCP) area. The survey was conducted following the currently accepted protocol of the USFWS, *Coastal California Gnatcatcher* (Polioptila californica californica) *Presence/Absence Survey Protocol* (USFWS 1997).The survey included three visits at a minimum of 7-day intervals. The entire area of suitable habitat was surveyed during each visit. A topographic map at 200-scale of the site overlain with vegetation polygons and the property was used during the survey for mapping. Additionally, digital mobile maps were utilized during the surveys to assist in navigating each survey area and mapping any gnatcatchers present. Weather conditions, time of day, and season were appropriate for the detection of gnatcatchers and are provided in Table 1. Appropriate binoculars (e.g., 10x50 magnification) were used to aid in detecting and identifying bird species. A tape of recorded gnatcatcher vocalizations was played approximately every 200 feet to induce responses from potentially present gnatcatchers. Tape-playback was terminated immediately upon detection of any gnatcatchers to minimize the potential for harassment.

Dudek reviewed the site for Hermes copper butterfly habitat in accordance with the *County of San Diego Guidelines for Hermes Copper (Lycaena hermes)* (Attachment B of County of San Diego 2010b). Within the study area, redberry buckthorn (*Rhamnus crocea*) is not present thus a survey for the Hermes Copper was not appropriate.

1.3.5 Jurisdictional Wetlands Delineation

A delineation of jurisdictional waters was conducted within the study area on October 30, 2015 with confirmation of the mapping in 2016 and a visit to map erosional features in 2017. The entire study area was surveyed on foot for the following types of features:

- Waters of the United States, including wetlands, under the jurisdiction of U.S. Army Corps of Engineers (ACOE)
- Waters of the state under the jurisdiction of the Regional Water Quality Control Board (RWQCB), pursuant to Section 401 of the federal CWA and the Porter–Cologne Water Quality Control Act as wetlands or drainages
- Streambeds under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Erosional features that are not under the jurisdiction of any of the permitting agencies.

Wetland waters of the United States are delineated based on methodology described in the 1987 *Corps of Engineers Wetlands Delineation Manual* (ACOE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (ACOE 2008a). ACOE and RWQCB jurisdictional wetlands are determined based on the presence of all three wetlands criteria: hydrophytic vegetation, hydrology, and hydric soils. Non-wetland waters of the United States are delineated based on the presence of an ordinary high water mark (OHWM) as determined utilizing the methodology in *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). The ACOE and U.S. Environmental Protection Agency (EPA) Rapanos Guidance states that the ACOE will regulate: (i) traditional navigable waters of the United States and (ii) their adjacent wetlands as well as (iii) non-navigable tributaries to traditional navigable waters that are relatively permanent and (iv) wetlands that directly abut such tributaries (ACOE and EPA 2008). In addition, if a significant nexus has been determined, the ACOE may also assert jurisdiction over (i) non-navigable tributaries that are not relatively permanent and (ii) their adjacent wetlands, as well as (iii) wetlands that are adjacent to but that do not directly abut a relatively permanent non-navigable tributary (ACOE and EPA 2008). The Rapanos Guidance was used to conduct the delineation.

RWQCB typically asserts jurisdiction over the same areas as ACOE. Guidance from the ACOE was used to determine the extent of resources regulated by the RWQCB under the Porter-Cologne Act, and are described as follows. Non-wetland waters subject to RWQCB jurisdiction were delineated based on the presence of an OHWM, as determined by ACOE guidance, or any other surface water regulated under the Porter-Cologne Act.

In accordance with California Fish and Game Code, streambeds are determined based on the presence of a definable bed and bank and are delineated from top of bank to top of bank or the extent of associated riparian vegetation (CDFW jurisdiction). For shallow drainages and washes that do not support riparian vegetation, the top of bank measurement may be the same as the OHWM measurement.

Areas or features lacking an OHWM and bed and bank that are not under the jurisdiction of ACOE, RWQCB, or CDFW, such as erosional features that do not meet the criteria described above, were also mapped.

1.3.6 Survey Limitations

A general wildlife survey was conducted in December 2015 and focused surveys were conducted in 2016 when the drought conditions in San Diego County had lessened and vegetation and wildlife species were more detectable. No reptile/small mammal trapping or nocturnal surveys were conducted for the project. Birds represent the largest component of the vertebrate fauna, and

because most are active in the daytime, diurnal surveys maximize the number of observations of this portion of the fauna. In contrast, daytime surveys usually result in few observations of mammals, many of which may be active at night. In addition, many species of reptiles and amphibians are nocturnal or cryptic in their habits and are difficult to observe using standard meandering transects.

1.4 Environmental Setting (Existing Conditions)

The study area is between 550 and 800 feet above mean sea level (amsl) and approximately 0.1 mile southwest of Lake Jennings, approximately 0.9 mile north of Interstate-8 (I-8), and approximately 1.6 miles east of State Route 67 (SR-67). Land use in the general vicinity includes open space and residential areas to the west, residential areas to the north and south, the R.M. Levy Water Treatment Plant immediately to the northeast, as well as Lake Jennings to the northeast. The current land use of the study area is existing rural residential housing and open space which provides habitat for MSCP-covered species and limited passive recreation. The study area is private property owned by Atlas Investments. Existing easements are shown on Figure 3.

The study area generally is within the foothills of the Peninsular Range in a transitional area between the coast and the mountains. The nearest weather station is located near Lakeside east of Lakeside, California, and generally receives an average rainfall of approximately 15.6 inches per year (Western Regional Climate Center 2015).

According to USDA (2015b), there are four soil types found in the study area within the Escondido and Friant series. Descriptions based on Bowman (1973) and the Web Soil Survey (USDA 2015b) appear as follows.

Escondido very fine sandy loam, 15-30% slopes and 9-15% slopes eroded, are represented on a majority of the site. Escondido soils occur on gently rolling to hilly topography in foothills at elevations of 400 to 2,800 feet. These soils range between 20 to 42 inches in depth, and are typically used for range, irrigated orchards and non-irrigated grain, grain hay and pasture. Native vegetation with Escondido series soils is typically oak-savanna and broadleaf chaparral (USDA 2015b).

Friant rocky fine sandy loam, 30-70% slopes and 30-50% slopes, is represented on the remainder of the site. The Friant series consists of shallow, well drained soils found on mountainous uplands. These soils are used principally for grazing, wildlife, and watershed. Native vegetation with Friant series soils is buckwheat, chaparral, and naturalized grasses and forbs (USDA 2015b).

1.4.1 Regional Context

The proposed project is located east of the unincorporated community of Lakeside in central San Diego County within private lands. In San Diego County, several resource conservation-

planning efforts have been completed or are currently in progress with the long-term goal of establishing a regional reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of biological reserve areas in conformance with the State Natural Communities Conservation Plan (NCCP) Act as well as streamlining compliance with the federal Endangered Species Act (FESA) and California Endangered Species Act (CESA).

The project study area is within the boundaries of land covered by the MSCP County of San Diego Subarea Plan, which was adopted in 1997; more specifically, the study area falls within the Unincorporated Land in the Metro-Lakeside-Jamul Segment (Figure 4) (County of San Diego 1997). The project study area is designated a pre-approved mitigation area (PAMA) thus the proposed project will be able to direct mitigation needs to on-site preserve areas. Areas defined as PAMA are areas designated by the Wildlife Agencies as preapproved for meeting the County's Subarea Plan conservation goals. The project study area is also within the MSCP Biological Resource Core Area (BRCA). Areas defined as BRCA are lands that are: located within PAMA; areas of habitat which contain biological resources that support or contribute to the long-term survival of sensitive species; areas considered a regional linkage or corridor; areas containing habitat that is ranked as high or very high in the Habitat Evaluation Map; land that is within a block greater than 500 acres; or land that contains a number of sensitive species due to special soil conditions. Of these criteria, the project meets the definition of BRCA because it is mostly located within PAMA (except for the existing development and an area of Riversidean sage scrub), is largely dominated by coastal sage scrub occupied by California gnatcatcher, is near a linkage, and contains areas ranked very high in the Habitat Evaluation Map. The site is located within the Lake Jennings/Wildcat Canyon Core Area, Core 9. The site is near to the linkage that has been identified in the MSCP as that area in the vicinity of Interstate 8 in Lakeside; the Lakeside Linkage. This linkage is described in the MSCP as an area with considerable development and multiple small parcels of land. The conserved area south of I-8 has been expanded to about 2,600 acres by the creation of the Crestridge Mitigation Bank. The focus of the Linkage has been the potential movement of the California gnatcatcher across Interstate 8.

1.4.2 Habitat Types/Vegetation Communities

Two native vegetation communities were mapped by Dudek within the study area. Native vegetation communities within the study area include Diegan coastal sage scrub (including disturbed forms) and Riversidian upland sage scrub. Two land cover types (non-vegetated areas) occur within the study area: disturbed land and urban/developed. The vegetation communities and land cover types listed above are described as follows, their acreages are presented in Table 2, and their spatial distributions are presented on Figure 5.

The County requires mitigation at varying ratios for many vegetation communities, in accordance with the BMO which incorporate habitat tiers established under the approved MSCP Subarea Plan (County of San Diego 1997). Vegetation communities considered special-status are those that require mitigation by the County (Tiers I-III) (County of San Diego 1997, Table 4-7).

Table 2
Vegetation Communities and Land Covers

Habitat Type	Oberbauer Code	MSCP Tier	Existing Acres On site	Existing Acres Off site
Uplands				
Diegan Coastal Sage Scrub (CSS)	32510	II	23.12	0.33
Disturbed Diegan Coastal Sage Scrub (dCSS)	32510	II	2.31	--
Riversidian Upland Sage Scrub (RSS)	32710	II	0.89	--
		Subtotal	*26.32*	*0.33*
Non-Native Vegetation Community/Land Cover Types				
Developed (DEV)	12000	IV	4.56	0.13
Disturbed Habitat (DH)	11300	IV	5.32	0.40
		Subtotal	*9.88*	*0.53*
		Total	**36.20**	**0.86**

1.4.2.1 Coastal Sage Scrub (32500)

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages, with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric slopes.

Diegan coastal sage scrub and all its variants generally are recognized as special-status plant communities by local, state, and federal resource agencies. It supports a diversity of special-status plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California. It is the focus of the current State of California Natural Communities Conservation Planning Program (NCCP). Diegan coastal sage scrub is a MSCP Tier II vegetation community (County of San Diego 1997).

Diegan coastal sage scrub vegetation on site is dominated by California sagebrush, California buckwheat, laurel sumac and coyotebrush (*Baccharis pilularis*). The majority of the property is mapped as Diegan coastal sage scrub. A disturbed form of Diegan coastal sage scrub is found on site, primarily adjacent to areas that are mapped as disturbed or developed lands where there are more non-native species present.

1.4.2.2 Riversidian Upland Sage Scrub (32530)

Riversidean upland sage scrub is the most xeric expression of coastal sage scrub south of Point Conception. Riversidean upland sage scrub alliance communities are co-dominated by California sagebrush, California buckwheat, and foxtail chess (*Bromus madritensis ssp rubens*). This community has a fairly open shrub canopy (Holland 1986). Riversidean upland sage scrub alliance often occurs on xeric sites including steep slopes with severely drained soils or clays that release stored soil moisture slowly (Holland 1986). This community intergrades with southern California chaparrals at higher elevations (Holland 1986). Riversidian upland sage scrub is not described within a MSCP Tier, however it would classify as a coastal sage-chaparral scrub community which is considered a MSCP Tier II vegetation community (County of San Diego 1997).

1.4.2.3 Disturbed Habitat (11300)

Disturbed habitat refers to areas that have been permanently altered by previous human activity that has eliminated all future biological value of the land for most species. The native or naturalized vegetation is no longer present, and the land lacks habitat value for special-status wildlife, including potential raptor foraging. The disturbed habitat on site consists on dirt roads and previously graded/cleared areas largely in conjunction with the surrounding residential developed areas. Vegetation in the disturbed habitat areas is typically sparse and less than 20% cover, and dominated by non-native annual grasses and weeds. Species found in disturbed habitat include bromes (*Bromus* spp.), shortpod mustard (*Hirschfeldia incana*), and Maltese star thistle (*Centaurea melitensis*).

Disturbed habitat is a MSCP Tier IV land cover type (County of San Diego 1997).

1.4.2.4 Urban/Developed (12000)

Urban/developed land refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). Developed areas are generally graded and compacted, sometimes covered with gravel road base, or built and have little to no vegetation present. Within the study area, developed areas include existing residences and associated roads.

Urban/developed areas are not considered special-status by CDFW or the County (2010c). It is a MSCP Tier IV vegetation community (County of San Diego 1997).

1.4.3 Flora

A total of 113 vascular plant species, consisting of 70 native species (62%), and 43 non-native species (38%), were recorded on site during surveys (Appendix A).

1.4.4 Fauna

The study area supports habitat for common upland species. Diegan coastal sage scrub and Riversidian upland sage scrub within the study area provide foraging and nesting habitat for migratory and resident bird species and other wildlife species.

A list of the wildlife species observed (incidentally on October 30, 2015, during the general wildlife survey conducted on December 3, 2015, and during focused surveys) within and adjacent to the study area is provided in Appendix B. There were 73 species observed on the study area. Species richness in the study area is low due to the property size, amount of undeveloped land, and the number of native upland habitats. Species richness generally increases with the presence of more habitat types and ecotones. Although species richness is low, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support upland habitat types adjacent to developed areas. Special-status wildlife species are addressed in Section 1.4.6.

1.4.4.1 Reptiles and Amphibians

A total of four reptile species were observed within the study area over the course of the wildlife surveys. No amphibian species were observed within or adjacent to the study area.

1.4.4.2 Birds

Thirty-nine bird species were detected during the biological surveys. Common species observed within the study area include house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), and California towhee (*Melozone crissalis*). The federally threatened coastal California gnatcatcher was observed in the northern portion of the study area (Figure 5).

1.4.4.3 Mammals

Six mammal species were detected (directly or indirectly) within the study area during the biological surveys, including brush rabbit (*Sylvilagus bachmani*) and coyote (*Canis latrans*). Additionally, several small mammal burrows occur within the study area.

Bats occur throughout most of Southern California and may use any portion of the study area as foraging habitat. However, there is a low potential for bat species to roost within the small rock

outcroppings or few trees within the study area. Because the surveys were conducted during daylight hours and, due to low potential, surveys did not include focused efforts to locate roosting bats and no bats were detected.

1.4.4.4 Invertebrates

Twenty-four invertebrate species were observed within the study area during the October and December 2015 surveys, including Behr's metalmark (*Apodemia mormo virgulti*) and orange sulfur (*Colias eurytheme*),among others.

A focused vernal pool branchiopod habitat assessment was conducted in December 2015 and no evidence of vernal pools, suitable habitat for branchiopods, or individual branchiopods was recorded.

1.4.4.5 Fish

No fish species were documented in the study area during 2015 surveys. No fish species are expected to occur in the study area due to lack of water.

1.4.5 Special-Status Plant Species

Endangered, rare, or threatened plant species, as defined in Section 15380(b) of the CEQA Guidelines (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 the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), (2) plant species with a CRPR 1 through 4, (CDFW 2015b; CNPS 2016), and (3) plant species considered "sensitive" by the County of San Diego (Table 2, County of San Diego 2010c).

Special-status plant surveys were conducted within the study area to determine the presence or absence of plant species that are considered endangered, rare, or threatened under CEQA Guideline 15380 (14 CCR 15000 et seq.), as described in Section 1.3.4.1. Three special-status plant species were detected within the study area during the October 2015 and May 2016 surveys (Appendix C). All species with potential to occur have been determined to either be present or absent are presented in Appendix C. Tables C-1 and C-2 in Appendix C provides a cumulative list of special-status plant species that have potential to occur in the study area based on the literature search. Table C-1 describes the special-status plants that have been observed or have moderate potential to occur (no species have high potential to occur); Table C-2 describes special-status plants that have low potential or are not expected to occur in the study area. These lists include plant species recorded in the El Cajon quadrangle and the surrounding eight quadrangles (CDFW 2015d; CNPS 2016) and a 5-mile search radius of the study area (USFWS 2015). Plant species sensitivity is based on their federal and state status, CRPR and County List (CDFW 2015a-b; CNPS 2016; County 2010c). The evaluation of each species' potential to occur on site is based on the elevation,

habitat, and soils present on site and Dudek's knowledge of biological resources in the area and regional distribution of each species.

1.4.5.1 Critical Habitat

There is no USFWS-designated critical habitat for any special-status plant species within 5 miles of the study area (USFWS 2015).

1.4.5.2 County List A and B Species

Plants categorized as County List A species are plants that are rare, threatened, or endangered in California and elsewhere. Plants categorized as County List B are rare, threatened, or endangered in California, but more common elsewhere (County of San Diego 2010c). No County List A or B species were observed in the study area. No County List A or B species were observed during focused surveys of the site.

Robinson's Pepper-Grass (*Lepidium virginicum* var. *robinsonii*)

Robinson's pepper-grass has moderate potential to occur on site but was not detected during focused surveys of the site. Robinson's pepper-grass is an annual herb in the Brassicaceae family (CNPS 2015). It is found in chaparral and coastal scrub habitats in California and Baja California, Mexico (CNPS 2015). This species is common but threatened by development. It blooms from January through July, and is found at elevations from sea level to 885 meters AMSL (CNPS 2015).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List A; County of San Diego 2010c). The species has a CRPR of 4.3, indicating that this species has a limited distribution in California but is not very endangered in California. The state identifies the species as an S3 species. The state defines S3 species as vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County List A plan species include those "plants rare, threatened or endangered in California and elsewhere" (County of San Diego 2010c); however, CNPS (2015) notes that this species is more common than originally thought.

1.4.5.3 County List C and D Species; Other

Plants categorized as County List C species are plants that may be rare, but more information is needed to determine their true rarity status. Plants categorized as County List D are of limited distribution and are uncommon, but not presently rare or endangered (County of San Diego 2010c). Three County List D species were observed in the study area, and are described as follows. No additional County List C species were observed on site however they are discussed below.

San Diego Sagewort (*Artemisia palmeri*)

Eight individuals of San Diego sagewort were recorded within the western portion of the study area during the focused surveys for special-status plants in May 2016 (Figure 5). San Diego sagewort is a perennial deciduous shrub in the Asteraceae family (CNPS 2016). This species is found in chaparral, coastal scrub, and riparian habitats throughout San Diego County in California, and in Baja California and Sonora, Mexico (CNPS 2016). This species is threatened by development and flood control projects and possibly by non-native plants. It is found at elevations from 15 to 915 meters AMSL (CNPS 2016).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.2, indicating that this species has a limited distribution in California and it is fairly endangered in California. The state identifies the species as an S3 species. The state defines S3 species as vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County List D plant species include those "plants of limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c).

Brewer's Calandrinia (*Calandrinia breweri*)

Brewer's calandrinia has moderate potential to occur on site but was not detected during focused surveys of the site. Brewer's calandrinia is an annual herb in the Montiaceae family (CNPS 2015). This species is found in chaparral and coastal scrub habitats in sandy or loamy disturbed sites and burned areas California, and in Baja California, Mexico (CNPS 2015). This species is potentially threatened by development and fire suppression and road maintenance. It blooms from January through June, and is found at elevations from 10 to 1,220 meters AMSL (CNPS 2015).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.2, indicating that this species has a limited distribution in California and it is fairly endangered in California. The state identifies the species as an S4 species. The state defines S4 species as apparently secure within California. The County List D plan species include those "plants of limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c).

San Diego Wild Cabbage (*Caulanthus heterophyllus*)

San Diego wild cabbage has moderate potential to occur on site but was not detected during focused surveys of the site. San Diego County viguiera is an annual herb in the Brassicaceae family (Calflora

2015). This species is found in chaparral and coastal scrub habitats throughout Southern California (Calflora 2015). It blooms from March through May, and is found at elevations from sea level to 1,400 meters AMSL (Jepson Flora Project 2015).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is a Covered species under the MSCP. It was considered but rejected by CNPS (2015).

Payson's Jewel-Flower (*Caulanthus simulans*)

Payson's jewel-flower has moderate potential to occur on site but was not detected during focused surveys of the site. Payson's jewel-flower is an annual herb in the Brassicaceae family (CNPS 2015). This species is found in chaparral and coastal scrub on sandy and granitic habitats throughout San Diego and Riverside Counties in California (CNPS 2015). Some populations are threatened by reservoir construction, urbanization, invasive species, grazing, and road construction (CNPS 2015). It blooms from February through June, and is found at elevations from 90 to 2,200 meters AMSL (CNPS 2015).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.2, indicating that this species has a limited distribution in California and it is fairly endangered in California. The state identifies the species as an S4 species. The state defines S4 species as apparently secure within California. The County List D plan species include those "plants of limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c).

Golden-Rayed Pentachaeta (*Pentachaeta aurea* ssp. *aurea*)

Golden-rayed pentachaeta has moderate potential to occur on site but was not detected during focused surveys of the site. Golden-rayed pentachaeta is an annual herb in the Asteraceae family (CNPS 2015). This species is found in chaparral, coastal scrub, cismontane woodland, lower montane coniferous forest, riparian woodland, and valley and foothill grassland habitats throughout Southern California (CNPS 2015). This species is threatened by non-native plants. It blooms from March through July, and is found at elevations from 80 to 1,850 meters AMSL (CNPS 2015).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.2, indicating that this species has a limited distribution in California and it is moderately threatened in California. The state identifies the species as an S3 species. The state defines S3 species as vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it

vulnerable to extirpation. The County List D plan species include those "plants of limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c). Ashy Spike-moss (*Selaginella cinerascens*)

Ashy spike-moss was recorded within the northern portion of the study area during the focused surveys for special-status plants in May 2016 (Figure 5). Ashy spike-moss is a perennial rhizomatous herb in the Selaginellaceae family (CNPS 2016). This species is found in chaparral and coastal scrub habitats throughout Orange and San Diego Counties in California, and in Baja California and Sonora, Mexico (CNPS 2016). It may also have once occurred in Riverside County, California, but is not presumed extirpated in that area (CNPS 2016). This species is threatened by development. It is found at elevations from 20 to 640 meters AMSL (CNPS 2016).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.1, indicating that this species has a limited distribution in California and it is seriously endangered in California. The state identifies the species as an **S3** species. The state defines S3 species as vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County List D plan species include those "plants of limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c).

San Diego County Viguiera (*Viguiera* [= *Bahiopsis*] *laciniata*)

San Diego County viguiera was recorded, with approximately 288 individuals counted within the study area during the October vegetation mapping surveys and focused surveys for special-status plants in May 2016 (Figure 5). San Diego County viguiera is a shrub in the Asteraceae family (CNPS 2016). This species is found in chaparral and coastal scrub habitats throughout Orange and San Diego Counties in California, and in Baja California and Sonora, Mexico (CNPS 2016). This species is locally common but threatened by continuing development within the region. It blooms from February through June, and is found at elevations from 60 to 750 meters AMSL (CNPS 2016).

This plant species is not listed as threatened or endangered by state or federal resource agencies; however, it is considered sensitive in the County of San Diego (List D; County of San Diego 2010c). The species has a CRPR of 4.2, indicating that this species has a limited distribution in California and it is moderately threatened in California. The state identifies the species as an S3.2 species. The state defines S3 species as vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation. The County List D plan species include those "plants of

limited distribution and [that are] are uncommon, but not presently rare or endangered" (County of San Diego 2010c).

1.4.6 Special-Status Animal Species

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of the CESA and FESA; (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFW (2015); (3) mammals and birds that are fully protected (FP) species, as described in Fish and Game Code, Sections 4700 and 3511; (4) Birds of Conservation Concern (BCC), as designated by the USFWS (2008); and (5) wildlife species considered "sensitive" by the County of San Diego (Table 3, County of San Diego 2010c).

Two special-status wildlife species were observed within the Greenhills Ranch II study area: coastal California gnatcatcher, a federally threatened, CDFW SSC, and a County Group 1 and MSCP Covered species and coastal cactus wren, CDFW SSC, and a County Group 1 and MSCP Covered species.

The locations of coastal California gnatcatcher and coastal cactus wren observed within the project area were recorded and are included in Figure 5; the species are discussed further in Section 1.4.6.2. Tables D-1 and D-2 in Appendix D provides a cumulative list of special-status wildlife species that have potential to occur in the study area based on the literature search and surveys. Table D-1 describes the special-status wildlife species that have been observed or have moderate or high potential to occur; Table D-2 describes special-status wildlife species that have low potential or are not expected to occur in the study area. The evaluation of each species' potential to occur on site is based on the habitat present on site and Dudek's knowledge of biological resources of the area and regional distribution of each species.

Surveys for Quino checkerspot butterfly were conducted in 2016 per the protocol and were negative. The Quino checkerspot butterfly is a federally endangered species found only in western Riverside County, southern San Diego County, and northern Baja California, Mexico (USFWS 2003). This species is found on sparsely vegetated hilltops, ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically less than 3,000 feet in elevation). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is dwarf plantain (*Plantago erecta*); however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*P. patagonica*); thread-leaved bird's beak (*Cordylanthus rigidus*); white snapdragon (*Antirrhinum coulterianum*); owl's clover (*Castilleja exserta*); and Chinese houses (*Collinsia* spp.) (USFWS 2003). The potential habitat within the study area

generally includes sage scrub, open chaparral, grasslands, open or sparsely vegetated areas, and dirt roads however the survey resulted in no detection of any of the host plant species.

The Quino checkerspot butterfly was considered to have moderate potential to occur in the Greenhills Ranch II study area however focused surveys for the species were negative and thus it is concluded the species is not present.

Hermes copper butterfly is a County Group 1 species (County of San Diego 2010c). Hermes copper butterfly is a rare species, restricted to San Diego County and northern Baja California, Mexico. In San Diego County, its historical range is from northern San Diego County near Fallbrook and Pala south into Baja California, and from the coast east to Pine Valley (County of San Diego 2010a, Attachment B). Fires and habitat loss have reduced populations of this species (County of San Diego 2010a, Attachment B). Hermes copper butterfly is not considered special-status by Federal or state agencies, but it is on CDFW's Special Animals List (CDFW 2015). The County (2010c) describes its reasons for inclusion in this report as follows:

Though not state or federally listed, the Hermes copper meets the definition of endangered under CEQA Sec. 15380 because its "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors."

Based on field notes from the rare plant survey and wildlife surveys conducted in 2016, spiny redberry was not observed within the study area. Thus a survey for the Hermes copper was not conducted or indicated.

1.4.6.1 Critical Habitat

The study area is not located within USFWS-designated critical habitat for any special-status wildlife species. There is critical habitat for two special-status wildlife species within 5 miles of the study area: coastal California gnatcatcher and arroyo toad; however, there is no critical habitat on site.

1.4.6.2 County Group I Species

County Group 1 species that have been observed in the study area, or have moderate to high potential to occur, are described below and included in Appendix D.

Birds

Coastal California Gnatcatcher (*Polioptila californica californica*)

Coastal California gnatcatcher is a federally threated, CDFW SSC, a County Group 1 and MSCP Covered species. Coastal California gnatcatcher breeds in lower elevations (less than 500 meters) south and west of the Transverse and Peninsular Ranges (Atwood and Bolsinger 1992). Higher densities of this species occur in coastal San Diego and Orange counties, and lower densities are found in Los Angeles, Orange, western Riverside, southwestern San Bernardino, and inland San Diego counties (Atwood 1993; Preston et al. 1998). The coastal California gnatcatcher primarily occupies open coastal sage scrub habitat that is dominated by California sagebrush. This species is relatively absent from coastal sage scrub habitats dominated by black sage (*Salvia mellifera*), white sage (*S. apiana*), or lemonadeberry.

Populations of coastal California gnatcatcher were once more widely distributed throughout Southern California and Mexico. There has been a significant decline in suitable sage scrub habitats throughout this species range, constituting a decline of 50-65% of suitable habitat between 1945 and 1990, which prompted listing of this species as federally threatened (56 FR 47053–47060). This decline has been attributed to habitat loss for residential and commercial developments. In addition, agricultural use, such as grazing and field crops, urbanization, air pollution, increases in fire frequency, and the introduction of exotics, have all had an adverse impact on the extant coastal scrub vegetation community.

Coastal California gnatcatcher was observed incidentally on the Greenhills Ranch II Project area during the October 2015 and 2016 surveys. The focused gnatcatcher surveys in 2016 provided more accurate information on the occupied habitat, where the majority of observations were within the proposed open space preserve. The species has a high potential to nest within the Greenhills Ranch II study area. Protocol level surveys for gnatcatcher resulted in observations of a single male gnatcatcher in the northern portion of the site and also the detection of a male off site and adjacent to the property. A pair has been documented within the preserve that is adjacent to this site as well.

Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)

Coastal cactus wren is a USFWS Birds of Conservation Concern (BCC), CDFW SSC species, and County Group 1 species. Coastal cactus wrens inhabit areas where cactus, primarily *Opuntia* species, is present. Rea and Weaver (1990) found that cactus wrens feed primarily on insects and fruit of *Opuntia* cactus, and nest almost exclusively on *Opuntia littoralis* or *Opuntia oricola*. Cactus wren nests tend to be built in *Opuntia* tall enough to support their nests, which occur primarily on south-facing slopes or at the base of hillsides within 1,200 feet of river valleys (Rea and Weaver 1990). A

study on territories in south Escondido, San Diego County, found territories between 1.8 acres (0.8 hectare) and 4.4 acres (2 hectares), with an average territory of 2.6 acres (1.3 hectares) (Rea and Weaver 1990). In comparison to population records in other portions of the County as identified by CNNDB, Unitt (2004), and Rea and Weaver (1990), the coastal cactus wren occurrences within the San Luis Rey River valley, east of I-15, are scattered and few in number. Several dense and numerous occurrences of coastal cactus wren are recorded at other sites including Camp Pendleton Marine Corps Base near Oceanside, Naval Weapons Station near Fallbrook, San Pasqual Valley along San Dieguito River, Lake Jennings and east along the San Diego River, along the Sweetwater River, and along the Otay River. These sites likely represent the core populations of coastal cactus wren within San Diego County. Unitt (2004) states that other San Diego County sites combined probably contribute fewer than 50 individuals; the majority of the cactus wren populations are concentrated in the areas described above.

One cactus wren was observed during the 2016 focused survey for California gnatcatcher. The area was carefully searched for signs of nesting and no evidence was found. There are few very small patches of the non-native cactus (there are no patches of the native *Opuntia*) that are not suitable for nesting however the site may be used for foraging since Lake Jennings is nearby. The potential for nesting on site is low.

Southern California Rufous-Crowned Sparrow* (Aimophila ruficeps canescens*)

Southern California rufous-crowned sparrow is a CDFW WL species, a County Group 1 and MSCP covered species. It is found in sparse, mixed chaparral and coastal scrub habitats within Southern California. Another subspecies is found within Northern California. It inhabits steep, often rocky hillsides with grass and forbs (Zeiner et al. 1990a).

There is a CNDDB record for this species that overlaps the study area (CDFW 2015d). Although not recorded on site, the species is considered to have a high potential to occur within coastal sage scrub habitat.

Bell's Sparrow (*Artemisiospiza belli belli*)

Bell's sparrow is a USFWS BCC, CDFW WL species, and County Group 1 species. It occurs as a non-migratory resident on the western slope of the central Sierra Nevada Range, and in the coastal ranges of California, southward from Marin County and Trinity County, extending into north–central Baja California, Mexico (County of Riverside 2008). The range of Bell's sparrow overlaps with that of at least one other subspecies of sage sparrow (County of Riverside 2008).

The Bell's sparrow occupies semi-open habitats with evenly spaced shrubs that are 3.3 to 6.6 feet high (County of Riverside 2008). For site selection, specific shrub species may be less

important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). Bell's sparrow is uncommon to fairly common in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and lower foothills of the mountains within its range.

Bell's sparrow was not observed in the study area during surveys in 2015 or 2016, but there is suitable habitat within the study area and the vicinity that would support this species. There are CNDDB records within 9-quad quadrangle search (CDFW 2015d) and confirmed breeding locations within the vicinity (Unitt 2004).

Turkey Vulture* (Cathartes aura*)

Turkey vulture is not considered special status by any state or federal agencies; however, it is considered a Group 1 species by the County (2010c). In California, it is common during the breeding season and is a yearlong resident west of the Sierra Nevada Mountains, especially in coastal areas. Summer and yearlong ranges also include the southeastern United States; portions of Texas, Mexico, Central America, and South America; and some islands in the Caribbean (Kirk and Mossman 1998).

Turkey vultures use a variety of habitats while foraging on both wild and domestic carrion. They prefer open stages of most habitats. In the western United States, they tend to occur regularly in areas of hilly pastured rangeland, non-intensive agriculture, and areas with rock outcrops suitable for nesting, although they are not generally found in high-elevation mountain areas (Kirk and Mossman 1998; Zeiner et al. 1990a). Nest locations tend to be difficult to find and are usually located in a crevice among granite boulders (Unitt 2004). However, the species prefers hilly areas that provide deflective updrafts for flight and generally avoids extensive areas of row-crop farmland (Kirk and Mossman 1998).

Turkey vulture was not observed in the study area but was observed flying overhead. Although the study area does not support suitable cliffs for nesting, there is suitable foraging habitat within the study area. Suitable foraging habitat includes most vegetation communities and undeveloped land cover on site (i.e., grassland, Diegan coastal sage scrub, disturbed habitat). Turkey vulture breeding surrounding the study area is poorly documented. No nests have been recorded within the area (Unitt 2004).

1.4.6.3 County Group II Species

County Group 2 species that have been observed in the study area, or have moderate to high potential to occur (Appendix D), are described below.

Reptiles

Coast Patch-Nosed Snake (*Salvadora hexalepis virgultea*)

The coast patch-nosed snake is a CDFW SSC and County Group 2 species. It ranges from west-central Nevada south to the tip of Baja California and northwestern Sonora, and from coastal Southern California to southwestern Utah and central Arizona. The coast patch-nosed snake is found at elevations from below sea level to around 2,130 meters (6,988 feet) AMSL (Goldberg 1995).

The coast patch-nosed snake is diurnal (Stebbins 2003) and can be found throughout the day during the milder months of spring. Activity is restricted to the mornings and late afternoons during the summer months. As an active, diurnal snake, it will occasionally take refuge in rock crevices, in small mammal burrows, and under vegetation. May and June are the typical months of peak activity; however, in the southern part of its range, activity may extend all year during mild to warm weather. The subspecies is a broad generalist in its diet and an opportunistic feeder that probably preys on anything it can overpower including small mammals (*Dipodomys*), lizards (*Aspidoscelis*, *Coleonyx*), and the eggs of lizards and snakes (Stebbins 2003). Jennings and Hayes (1994) also found that the patch-nosed snake may adjust its activities around that of one of its prey, the whiptail lizard (*Aspidoscelis* spp.).

Coast patch-nosed snake was not observed during surveys however the species is relatively difficult to detect. Suitable habitat is present on site. There are no CNDDB points within the study area; the closest location is approximately 3 miles from the site (CDFW 2015d).

Orangethroat Whiptail (*Aspidoscelis hyperythra*)

Orangethroat whiptail is a CDFW SSC, an MSCP Covered species, and County Group 2 species. Its current range includes southwestern California and Baja California, Mexico, from the southern edges of Orange County (Corona del Mar) and San Bernardino County (near Colton), southward to the Mexican border. This species is located on the coastal slope of the Peninsular Ranges and extends from near sea level to 3,412 feet (northeast of Aguanga, Riverside County) (Jennings and Hayes 1994). It commonly occurs in coastal sage scrub, chaparral, grassland, juniper, and oak woodland.

There are CNDDB records for this species approximately 1,500 feet to the northwest of the study area (CDFW 2015d). Suitable habitat on site includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

Coronado Island Skink (*Plestiodon skiltonianus interparietalis*)

The Coronado Island skink is a CDFW SSC and County Group 2 species. This species is common within grassland, woodlands, pine forests, chaparral, especially open sunny areas (e.g., clearings, edges of creeks) and rocky areas near streams with lots of vegetation. However, this species may also be found in areas away from water. The Coronado skink is found in inland Southern California south through the north Pacific coast region of northern Baja California (Nafis 2015).

Although limited suitable habitat occurs within the study area, there is a CNDDB record for this species that overlaps the study area (CDFW 2015d).

Silvery Legless Lizard (*Anniella pulchra pulchra*)

The silvery legless lizard is a CDFW SSC and County Group 2 species. It occurs from Antioch, California, south through the Coast, Transverse, and Peninsular Ranges, and the western slopes of the Sierra Nevada southward into northwestern Baja California, Mexico (Stebbins 2003). The species also occurs in the Antelope Valley and as isolated populations in disjunct mountain ranges along the western edge of the Mojave Desert. Silvery legless lizards have been found at elevations ranging from sea level to 1,554 meters (5,100 feet) amsl (Stebbins 2003).

The silvery legless lizard is a fossorial (i.e., burrowing) animal and is found primarily in areas with sandy or loose soils where they typically are found beneath leaf litter (Holland and Goodman 1998; Zeiner et al. 1988). This species may be found in sparsely vegetated areas in a variety of habitats, including beach dunes, chaparral, California sagebrush scrub, oak woodlands, pine forests, pine–oak woodland, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks (Zeiner et al. 1988; Stebbins 2003; Holland and Goodman 1998). The species is also found under or in the close vicinity of logs, rocks, old boards, and the compacted debris of woodrat nests (Jennings and Hayes 1994). Rocky soils or areas disturbed by agriculture, sand mining, or other human uses are not suitable for legless lizards (Hunt 1983; Stebbins 2003).

Silvery legless lizard was not detected during surveys; however, there is suitable habitat in the study area and the species is difficult to detect. There is a CNDDB record for this species within the study area (CDFW 2015d). This species can occur in a variety of open habitats within the study area, including Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub.

Blainville's Horned Lizard (*Phrynosoma blainvillii*)

Blainville's horned lizard (also known as coast horned lizard) is a CDFW SSC and a County Group 2 species. It is found from the Sierra Nevada foothills and central California to coastal Southern California. It is often associated with coastal sage scrub, especially areas of level to gently sloping

ground with well-drained loose or sandy soil, but it can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 and 7,030 feet amsl (Jennings and Hayes 1994). This reptile typically avoids dense vegetation, preferring 20% to 40% bare ground in its habitat. The horned lizard can be locally abundant in areas where it occurs, with densities near 20 adults per acre. Adults are active from late March through late August, and young are active from August through November or December. Up to 90% of the diet of the horned lizard consists of native harvester ants (*Pogonomyrmex* spp.).

This species is recorded in the El Cajon quadrangle although none were mapped within the study area (CDFW 2015d). Suitable habitat within the study area includes sandy soils within Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

San Diegan Tiger Whiptail (*Aspidoscelis tigris stejnegeri*)

San Diegan tiger whiptail (formerly coastal western whiptail) is not considered special status by any state or federal agencies; however, it is a County Group 2 species. It is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, north into Ventura County, and south into Baja California, Mexico (Stebbins 2003).

The San Diegan tiger whiptail is found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. According to Stebbins (2003), the species ranges from deserts to montane pine forests where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth.

San Diegan tiger whiptail was not detected during surveys; however, there is suitable habitat in the study area, and it has high potential to occur. This species is recorded in CNDDB within the El Cajon quadrangle (CDFW 2015d). Within the study area, suitable habitat includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

Red Diamondback Rattlesnake (*Crotalus ruber*)

The red diamondback rattlesnake is a CDFW SSC and County Group 2 species. It is found in a variety of habitats from the coast to the deserts, from San Bernardino County into Baja California, Mexico (below 5,000 feet in elevation). It commonly occurs in rocky areas within coastal sage scrub, chaparral, juniper woodlands, and desert habitats, but can also be found in areas devoid of rocks (Zeiner et al. 1988).

Red diamondback rattlesnake was not observed during surveys, but there is suitable habitat within the study area, and it has high potential to occur in the study area. This species is recorded in

CNDDB within the El Cajon quadrangle and surrounding 8-quad quadrangle search (CDFW 2015). Within the study area, suitable habitat includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

Mammals

Long-Eared Myotis (*Lasiurus xanthinus*)

Long-eared myotis is a County Group 2 species. The long-eared myotis occurs throughout California, except for the Central Valley and hot deserts, with a preference for coniferous woodlands and forests (Zeiner et al. 1990b). This species primarily roosts in caves but can also use buildings and crevices within trees (Zeiner et al. 1990b).

There is moderate potential for long-eared myotis to forage over the study area. However, there are no suitable roosting areas.

Pallid Bat (*Antrozous pallidus*)

Pallid bat is a CDFW SSC, and a County Group 2 species. The pallid bat occurs commonly throughout California in lower elevations. A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range (Zeiner et al. 1990b).

There is moderate potential for pallid bat to forage over the study area, however, there are no suitable roosting areas.

Western Small-footed Myotis (*Myotis ciliolabrum*)

Western small-footed myotis is a County Group 2 species. The western small-footed myotis is a common bat of arid uplands in California. In coastal California it occurs from Contra Costa Co. south to the Mexican border. It occurs in a wide variety of habitats, primarily in relatively arid wooded and brushy uplands near water. This species is found from sea level to at least 8,900 feet amsl (Zeiner et al. 1990b).

There is moderate potential for western small-footed myotis to forage over the study area, however, there are no suitable roosting areas.

Yuma Myotis (*Myotis yumanensis*)

Yuma myotis is a County Group 2 species. The Yuma myotis occurs throughout California, uncommon in the Mojave and Colorado Desert regions, with a preference for open forests and

woodlands with access to water for foraging. This species roosts in caves, buildings, crevices within trees and under bridges (Zeiner et al. 1990b).

There is moderate potential for Yuma myotis to forage over the study area. However, there are no suitable roosting areas.

Western Mastiff Bat (*Eumops perotis californicus*)

Western mastiff bat is a CDFW SSC, and a County Group 2 species. The greater western mastiff bat occurs in a wide variety of habitats, including chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland. This species occurs mostly in Southern California, San Diego County and the Los Angeles Basin, from the Colorado River to the coast (Zeiner et al. 1990b).

There is moderate potential for western mastiff bat to forage over the study area. However, there are no suitable roosting areas.

Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)

The northwestern San Diego pocket mouse is a CDFW SSC, and County Group 2 species. It occurs in coastal scrub, chaparral, grasslands, sagebrush, and similar habitats in western San Diego County. Microhabitat includes sandy, herbaceous areas, usually in association with rocks or coarse gravel.

This species was not observed on site but has a high potential to occur. Suitable vegetation occurs on site as well as loam and sandy loam soil types. Suitable habitat on site includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

Dulzura pocket mouse (*Chaetodipus californicus femoralis*)

The Dulzura pocket mouse is a CDFW SSC, and County Group 2 species. The Dulzura pocket mouse ranges throughout most of San Diego County into northern Baja California, Mexico. It is generally found on chaparral-covered slopes in coastal and montane regions, but can also occupy open habitat, disturbed habitat, coastal scrub, oak woodland, chamise chaparral, and mixed conifer habitats. This species is found from sea level to at least 3,000 feet amsl (Zeiner et al. 1990b).

This species was not observed on site but has a moderate potential to occur. Suitable habitat on site includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, Riversidian upland sage scrub, and disturbed habitat.

Southern Grasshopper Mouse (*Onychomys torridus ramona*)

The southern grasshopper mouse is a CDFW SSC, and County Group 2 species. This species is distributed in California from San Francisco Bay south to the border of Mexico, east to the edge of the Great Valley. The California pocket mouse inhabits a variety of habitats year-round, including coastal scrub, chamise-redshank and montane chaparral, sagebrush, annual grassland, valley foothill hardwood, valley foothill hardwood-conifer, and montane hardwood habitats. Southern grasshopper mouse ranges in elevation from sea level to 7,900 feet amsl (Zeiner et al. 1990b).

This species was not observed on site but has a moderate potential to occur. Suitable habitat on site includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, and Riversidian upland sage scrub.

Mule Deer (*Odocoileus hemionus*)

Mule deer is a County Group 2 species. Common to abundant, yearlong resident or elevational migrant with a widespread distribution throughout most of California, except in deserts and intensively farmed areas without cover (Longhurst et al. 1952; Ingles 1965). Occur along major river corridors in the Central Valley, and in scattered desert mountain areas. Occur in early to intermediate successional stages of most forest, woodland, and brush habitats. Prefer a mosaic of various-aged vegetation that provides woody cover, meadow and shrubby openings, and free water.

This species was not observed on site but has a moderate potential to occur. Suitable habitat on site includes Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, and Riversidian upland sage scrub.

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*)

San Diego black-tailed jackrabbit is a CDFW SSC and County Group 2 species. This species is found in arid habitats throughout Southern California, although other subspecies are more widespread throughout the state (NatureServe 2015). In Southern California, this subspecies occurs in Los Angeles, Riverside, San Bernardino, and San Diego Counties (NatureServe 2015). Specifically, this species is found in herbaceous, desert-shrub areas, and open forest and chaparral habitats.

This species has a CNDDB record immediately west of the study area (CDFW 2015d). The study area supports suitable open sage scrub habitats that could be utilized by this species.

1.4.7 Wetlands/Jurisdictional Waters

The results of the jurisdictional delineation conducted in October 2015, performed by Dudek, concluded there are non-wetland jurisdictional waters within the study area. Mapping was reviewed in 2016 to confirm that no additional areas are jurisdictional and a site visit was conducted in 2017 to map erosional features that are not jurisdictional. Erosional features were mapped and are exhibited as "non-jurisdictional features" due to their lack of consistent OHWM features, short distance, and lack of connectivity to waters of the U.S./State that were mapped and are described below. The source of some of these features seems to come from the NAP parcel as well as the SDG&E easement areas that are devoid of vegetation.

Details regarding the findings from the jurisdictional delineation are discussed below.

Potential Wetlands

No areas were mapped as potential wetlands within the study area. Wetland hydrology indicators were not present (i.e., hydrophytic vegetation, hydric soils, or surface water).

RPO Wetland Determination

No areas were mapped as potential wetlands within the study area. Wetland hydrology indicators, such as hydrophytic vegetation or undrained hydric soils, were not present. Therefore, no RPO wetlands were determined to occur.

Potential Non-Wetland Waters

The study area was surveyed to determine the presence of potential waters of the United States and state. Non-wetland waters were mapped based on the presence of an ordinary high water mark (OHWM) identified along ephemeral unvegetated stream channels in three areas within the study area. These ephemeral unvegetated stream channels have a defined bed and bank and other evidence of hydrology (Figure 5).

All ephemeral unvegetated stream channels mapped within the study area had a defined bed and bank, evidence of an OHWM, a channel bed of 1 to 3 feet wide, and were continuous for greater than 250 linear feet; thus, were determined to be jurisdictional non-wetland waters. Approximately 0.04 acre (942 linear feet) of potential jurisdictional waters of the United States/State are identified within the study area.

As stated above, these waters do not meet any one of the three criteria required to be considered a County RPO wetland. However, these non-wetland waters were determined to be under the potential combined jurisdiction of ACOE, RWQCB, and CDFW.

1.4.8 Habitat Connectivity and Wildlife Corridors

Wildlife species generally inhabit suitable habitat patches distributed across a landscape. These habitat blocks, which may make up the species' home range or breeding territory, support most, if not all, of the species' life history needs (e.g., food resource, mates, refuge). Critical to the survival of most wide-ranging species is the ability to access or move between various habitat blocks to allow for juvenile dispersal, to access food and/or shelter during the winter months, to escape catastrophic events (e.g., flood, fire, etc.), and to ward against genetic in-breeding (Rosenberg et al. 1997). In undisturbed or unfragmented landscapes, such movements by some species may occur throughout the landscape without a defined movement route (e.g., between mosaics of suitable habitat patches). However, where landscapes have movement constraints related to either natural conditions, such as vegetation types or topography (e.g., steep slopes) or man-made obstacles (e.g., urban areas, roads), wildlife may have to move along defined landscape linkages or "wildlife corridors." The phrase "wildlife corridors," as used in the report, are generally linear landscape features that permit species to disperse between favorable habitats.

Wildlife corridors are defined as areas that connect suitable wildlife habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyon drainages, ridgelines, or areas with vegetation cover, provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of wildlife from high-density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife corridors are considered sensitive by resource and conservation agencies.

Wildlife crossings are not habitats per se, but are identifiable locations within a constrained landscape through which wildlife must pass to negotiate physical constraints, such as roads and development. These crossings may occur within a landscape habitat linkage or a wildlife corridor, but, in either case, represent potential bottlenecks in the movement landscape.

The site represents a portion of the Lake Jennings/Wildcat Canyon Core Area; a core of habitat supporting California gnatcatcher and cactus wren. This core generally extends from the Lakeside Linkage (H) in a northeasterly direction to the Cleveland National Forest and northerly to the core within which San Vicente Reservoir is located. The core includes habitat areas around Lake Jennings including the site, the El Monte Valley, and north through lands around San Vicente Reservoir, within Wildcat Canyon, and on El Cajon Mountain (Figure 4).

The study area contains undeveloped areas that are connected to existing preserves and pre-approved mitigation areas (PAMA). The MSCP considers the "high" and "very high" habitat value lands as primary linkages connecting to Biological Resource Core Areas (County of San Diego 1997), meaning these portions of the study area are considered habitat linkages for coastal

sage scrub and associated wildlife species, such as coastal California gnatcatcher. Given the surrounding development, this area is fairly restricted and would not be considered a large habitat block, but rather a stepping stone corridor or linkage for species such as bird, reptiles, and smaller to mid-size mammals (e.g., rabbits, bobcat, or coyote). These wildlife species would be expected to use the patches of habitat that are located within the adjacent preserves for both year-round habitat as well as dispersal corridors during migration or dispersal to new territories. Connectivity from the study area to the Lake Jennings preserve is separated by Lake Jennings Park Road which likely prevents less mobile species such as reptiles or amphibians from easily dispersing to that area. Highly mobile species, such as birds, likely move through these areas without issue.

The site does not appear to function as a wildlife corridor for large mammals, as there are developed lands to the north and south, Lake Jennings Park Road immediately to the east of the site, and Lakeview Road and developed areas approximately 2,000 feet to the west. Additionally, the open scrub habitat nearby does not provide adequate cover for larger wildlife and does include any forested habitats.

Regional Resource Planning Areas

Several regional habitat management programs exist in San Diego County, proximate to the study area, including the MSCP San Diego County Framework Management Plan.

The MSCP seeks to preserve the unique, native habitats and wildlife within San Diego County. The MSCP is a regional conservation effort that relies on multiple jurisdiction and agencies to ensure conservation goals and policies are implemented and successful. The MSCP includes three subareas each containing a separate conservation plan. The three subareas are North County, South County, and East County. Only the South County MSCP Subarea Plan is approved.

The study area is located within the boundary of the South County MSCP in land designated as Unincorporated Land in Metro-Lakeside-Jamul Segment (Figure 4). The South County MSCP encompasses approximately a 900 square-mile area in southwestern San Diego. The Metro-Lakeside-Jamul Segment has a total area of 172,952 acres and is separated into a north and south segment by I-8 (County of San Diego 1997). The study area is north of I-8; the northern section of this segment is 74,510 acres with 51,543 acres of natural vegetation with habitat value (County of San Diego 1997). The study area is located in the Lakeside Community Plan area, which consists primarily of rural residential developments and is west of Lake Jennings.

Portions of the study area are designated as a PAMA (Figure 4).The study area is adjacent to Greenhills I preserve and the within the Lake Jennings/Wildcat Canyon Core (Figure 4), which

supports California gnatcatcher habitat. The Lake Jennings Watershed preserve is located on the opposite side of Lake Jennings Road from the northeastern portion of the study area. Based on the PAMA designation and "very high" habitat value lands of portions of the study area and its proximity to preserved lands, the study area is considered a Biological Resource Core Area, as identified in the South County MSCP and defined in the BMO (County of San Diego 1997, 2010). It is not located within a critical biological resource area identified in the South County MSCP (County of San Diego 1997).

1.5 Applicable Regulations

1.5.1 Federal

The FESA of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by the USFWS, National Oceanic and Atmospheric Administration (NOAA), and National Marine Fisheries Service (NMFS). This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. Under provisions of Section 9(a)(1)(B) of FESA, it is unlawful to "take" any listed species. "Take" is defined in Section 3(19) of FESA as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 U.S.C. 703 et seq.). Additionally, Executive Order (EO) 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The EO requires federal agencies to work with the USFWS to develop a memorandum of understanding. The USFWS reviews actions that might affect these species.

Pursuant to Section 404 of the CWA, the ACOE regulates the discharge of dredged and/or fill material into "waters of the United States." The term "wetlands" (a subset of waters) is defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark" which is defined in 33 CFR 328.3(e).

1.5.2 State

The CDFW administers the CESA (California Fish and Game Code, Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of California. Under CESA Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

According to Sections 3511 and 4700 of the Fish and Game Code, which regulate birds and mammals, respectively, a "fully protected" species may not be taken or possessed without a permit from the Fish and Game Commission, and "incidental takes" of these species are not authorized.

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

Section 2081(b) and (c) of the Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with the USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own, based on its findings that the federal permit adequately protects the species and is consistent with state law. A Section 2081(b) permit may not authorize the take of "Fully Protected" species and "specified birds" (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, 5515, and 5517). If a project is planned in an area where a Fully Protected species or a specified bird occurs, an applicant must design the project to avoid take.

Pursuant to Section 1602 of the Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

Section 2835 of the Fish and Game Code allows the Department to authorize incidental take in an NCCP. Take may be authorized for identified species whose conservation and management is provided for in the Plan, whether or not the species is listed as threatened or endangered under the federal or state Endangered Species Acts, provided that the NCCP complies with the conditions established in Section 2081 of the Fish and Game Code. The NCCP provides the framework for the San Diego MSCP Plans.

1.5.3 County

The RPO, 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 significant prehistoric or historic sites. The Greenhills Ranch II Project does not require any permits or authorizations that require evaluation under the RPO, and therefore it is not discussed further herein (County of San Diego 2007).

The County's BMO (County of San Diego 2010b) is the regulating tool for the County's MSCP (County of San Diego 2010c) and also establishes guidance for determining which areas are considered Biological Resource Core Areas and sets forth criteria for avoiding impacts to these areas. The BMO also provides mitigation requirements for all projects requiring a discretionary permit. The BMO is designed to provide incentives for development in areas with lower habitat value and direct conservation and open space preservation to areas of high and very high habitat value.

County of San Diego MSCP

The study area is located within the boundaries of the MSCP South County Subarea Plan. It is located within Unincorporated Land in Metro-Lakeside-Jamul Segment. This land designation includes lands that are under the jurisdiction of San Diego County and within the MSCP planning area, but outside the Lake Hodges and South County Segments. According to the County (County of San Diego 2010c), "land within this segment will be evaluated during the review of projects rather than the exact location of development and preserves being pre-determined as in the other two segments." Within the Metro-Lakeside-Jamul Segment of the County's Subarea Plan, the take of covered species and their habitats will be authorized for projects based on a project's satisfaction of the requirements of the BMO and conformance with the terms of the Subarea Plan. Conservation goals for this segment, and for which the Greenhills Ranch II project needs to conform, involve conservation of specific habitat types and rare or special-status flora and fauna.

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2 PROJECT EFFECTS

2.1 Definition of Impacts

This section defines the types of impacts considered in this report to analyze the potential effects of the Greenhills Ranch II Project on biological resources. These impacts are discussed in more detail as follows.

Greenhills Ranch II Project

Direct impacts refer to 100% loss of a biological resource and may be permanent or temporary. For purposes of this report, direct permanent impacts include construction of the 63 single-family residential lots, brush management zones, and a private street system.

Direct temporary impacts would include areas where there is temporarily subject to disturbance. Based on the project design and description, there are no temporary impacts.

Direct permanent impacts were quantified by overlaying the grading for the 63 single-family residential lots, fuel management zones, limited building zone, and private street system over mapped biological resources utilizing GIS (Figure 6). Some areas are designated as impact neutral that are too small or not appropriate to be included as mitigation open space.

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct limits of grading. Indirect impacts may affect areas within the defined project area but outside the construction disturbance zone, including open space and areas outside the project area. Indirect effects are generally not quantified.

Cumulative impacts refer to the combined environmental effects of the Proposed Project and other relevant projects. In some cases, the impact from a single project may not be significant, but when combined with other projects, the cumulative impact may be significant. This report does not include analysis of cumulative impacts for topics that are addressed under the MSCP since the MSCP addresses cumulative impacts but does include cumulative analysis for wildlife corridors.

2.2 Vegetation Communities/Land Covers

2.2.1 Permanent Direct Impacts to Vegetation Communities/Land Covers

Long-term or permanent direct impacts to vegetation communities were quantified by comparing the impact footprint with the boundaries of the vegetation communities mapped in the project area. Direct impacts to vegetation communities would occur as a result of construction of the project. Table 3 shows the acreage of direct impacts to vegetation communities within the Greenhills Ranch II project footprint as a result of construction of the proposed development and fuel

modification zone, as well as the open space preserve (Figure 6). An additional open space area that is designated as impact neutral is to provide protection of the waters of the U.S. but not to mitigate for impacts to habitat. While the waters of the U.S. are not RPO wetlands, protecting the resource avoids the need for permits since impacts will not occur.

Table 3
Direct Impacts to Vegetation Communities

Habitat/Vegetation Community	Existing On Site (acres)	On-Site Grading Impacts (acres)	On-Site Fuel Modification Zones (acres)	Off-Site Impacts (acres)	Total Impact (acres)	Impact Neutral Open Space*	On-site Open Space Preserve (acres)	Off-site Open Space Preserve (acres)
Riversidian Upland Sage Scrub (MSCP Tier II)	0.89	0.01	0.01	--	0.02	0.87	--	--
Diegan Coastal Sage Scrub (MSCP Tier II)	23.12	7.66	1.77	0.33	9.76	4.82	8.87	10.23
Disturbed Diegan Coastal Sage Scrub (MSCP Tier II)	2.31	2.27	--	--	2.27	0.03	0.01	--
Subtotal	*26.32*	*9.94*	*1.78*	*0.33*	*12.05*	*5.72*	*8.88*	*10.23*
Developed (MSCP Tier IV)	4.56	3.20	0.09	0.13	3.42	1.27	--	--
Disturbed Habitat (MSCP Tier IV)	5.32	4.12	--	0.40	4.52	1.19	0.01	--
Subtotal	*9.88*	*7.32*	*0.09*	*0.53*	*7.94*	*2.46*	*0.01*	--
Total	**36.20**	**17.26**	**1.87**	**0.86**	**19.99**	**8.18**	**8.89**	**10.23**

* Includes areas outside of SDG&E easement that are not impacted, the SDG&E easement, the portions of the site that are not impacted but are not considered preserve (existing road).

2.2.2 Indirect Impacts to Vegetation Communities

Potential short-term indirect impacts to special-status vegetation communities in the Project area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts that could affect all the special-status vegetation communities that occur within the study area are described in detail as follows.

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.

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.

Long-term permanent indirect impacts could result from the proximity of the Proposed Project to special-status vegetation communities after construction, including impacts related to development of the site. Permanent indirect impacts that could affect special-status vegetation communities include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed as follows.

Habitat Fragmentation. Habitat fragmentation and isolation of plant populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes; and insularization of local populations, which affects dispersal rates (Wilcove et al. 1986; Wilcox and Murphy 1985). Although these effects are more readily observable in wildlife, there are potential ecological effects, such as changes in pollinator populations that can result in altered plant community composition and thus adversely affect special-status vegetation communities.

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 could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including but not limited to the fact that exotic plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and unique vegetation communities. 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 impacts footprint, as well as soil compaction, and could affect the viability of plant communities. Trampling can alter the ecosystem, creating gaps in vegetation and allowing exotic, 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. An increased human population increases the risk for damage to special-status vegetation communities.

Alteration of the Natural Fire Regime. The Proposed Project could potentially increase the risk of fire, including but not limited to fire associated with electrical shorts or electrical equipment malfunction. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

The significance of these potential impacts is determined through application of the County Significance Guidelines described in Section 4.

2.3 Special-Status Plant Species

2.3.1 Permanent Direct Impacts to Special-Status Plant Species

Long-term or permanent direct impacts to the special-status plant observed on site were quantified by overlaying the impact footprint on the boundaries of San Diego County viguiera mapped in the project area. Direct impacts to vegetation communities would occur as a result of construction of the project. There are direct impacts to approximately 87 individuals (30%) of the mapped San Diego County viguiera within the Greenhills Ranch II project footprint as a result of construction the proposed development (Figure 6). Direct impacts to ashy spike-moss and San Diego sagewort are not expected with implementation of the proposed project. Suitable habitat on site for these three special-status species includes the native scrub habitats, of which there are impacts to 12.05 acres.

2.3.2 Indirect Impacts to Special-Status Plant Species

Potential short-term indirect impacts to special-status plants in and around the Greenhills Ranch II Project area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; the introduction of chemical pollutants (including herbicides); and increased human presence, similar to the discussion presented in Section 2.2.2 for indirect impacts to vegetation communities. As that analysis indicates, indirect impacts are not expected to occur or would be highly limited in nature.

Long-term permanent indirect impacts could result from the proximity of the Proposed Project to special-status plants after construction, including impacts related to development of the site. Permanent indirect impacts that could affect special-status plants include habitat fragmentation,

non-native invasive species, increased human activity, and alteration of the natural fire regime, similar to the discussion presented in Section 2.2.2 for indirect impacts to vegetation communities.

2.4 Special-Status Wildlife Species

2.4.1 Permanent Direct Impacts to Special-Status Wildlife Species

Long-term or permanent direct impacts to special-status wildlife species were quantified by comparing the impact footprint with suitable habitat for wildlife species. As discussed above, permanent impacts include the development footprint. Impacts from the development footprint include the permanent loss of 9.76 acres of Diegan coastal sage scrub, 2.27 acres of disturbed Diegan coastal sage scrub, 0.02 acre of Riversidian upland sage scrub, 4.52 acres of disturbed habitat, and 3.42 acres of developed land.

2.4.1.1 County Group 1 Species

The information provided in this section discusses the potential effects for County Group 1 species. More detailed information about observation of the species or its potential to occur within the Greenhills Ranch II project area, suitable habitat, and range is provided in Section 1.4.6.2. Direct impact to active nest sites are not expected because the Proposed Project prohibits vegetation clearing between February 15 through August 31. The potential for nesting raptors is low due to lack of suitable nest trees.

Coastal California gnatcatcher and coastal cactus wren (foraging only) were observed within the Greenhills Ranch II study area. Impacts to suitable gnatcatcher habitat resulting from construction of the project would be 12.05 acres. Southern California rufous-crowned sparrow, Bell's sparrow, and turkey vulture also have potential to utilize this habitat. Construction-related impacts could result in the loss of active bird nests and/or young during vegetation clearing activities.

Dudek conducted protocol level surveys for coastal California gnatcatcher and Quino checkerspot butterfly in 2016. Surveys indicated one gnatcatcher in the northern portion of the preserve (and could potentially breed on site) and no Quino checkerspot butterfly present. No nesting of coastal cactus wren was observed however the species was documented as foraging on site. While the foraging location where the individual was observed will be impacted, there is additional open space for foraging on site and there is no suitable native cactus present.

2.4.1.2 County Group II Species

County Group 2 species that have high potential to occur (Appendix D) are described as follows. Orangethroat whiptail, Blainville's horned lizard, silvery legless lizard, red-diamond rattlesnake, San Diegan tiger whiptail, Dulzura pocket mouse, northwestern San Diego pocket mouse, and San

Diego black-tailed jackrabbit were not observed; however, these species have a high potential to occur within the project area due to the presence of suitable habitat. Direct impacts to San Diego black-tailed jackrabbit are not expected because this species is highly mobile.

The following special-status species have moderate potential to occur within the project area: Coast patch-nosed snake, Coronado Island skink, long-eared myotis, pallid bat, western small-footed myotis, Yuma myotis, western mastiff bat, southern grasshopper mouse, and mule deer. Direct impacts to bat species are not likely because there are no suitable roosting areas within the project area.

Amphibians, reptiles, and small mammals are low-mobility or sedentary species, and direct impacts to these species could occur as a result of the grading activities.

Loss of suitable habitat for these species includes direct impacts to 12.05 acres of native vegetation, which species may use while foraging or moving between habitat patches.

2.4.2 Indirect Impacts to Special-Status Wildlife Species

Short-term, construction-related, indirect impacts to special-status wildlife species would primarily result from construction activities. Potential short-term indirect impacts could occur as a result of generation of fugitive dust, noise, chemical pollutants, increased human activity, and non-native animal species during construction.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Construction-related noise could occur from equipment used during vegetation clearing. 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).

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near the Proposed Project footprint and increase the potential for vehicle collisions.

Non-Native Animal Species. Trash from construction-related activities could attract invasive predators such as ravens and coyotes that could impact the wildlife species in the Project area.

All special-status wildlife species on site could be impacted by potential short-term indirect impacts such as those previously listed. The significance determination for these potential impacts is determined through application of the County Significance Guidelines described in Section 3.

Long-term permanent indirect impacts could result from the proximity of the Proposed Project to special-status wildlife species after construction, including impacts related to development of the site. Permanent indirect impacts that could affect special-status wildlife species include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed as follows.

Habitat Fragmentation. The Proposed Project will impact vegetation communities and land covers, resulting in potential habitat fragmentation. Habitat fragmentation can reduce diversity of species, spread invasive species, and reduce access to important habitats (Lovich and Ennen 2011). In addition, habitat fragmentation and isolation of wildlife populations may cause extinction of local populations as a result of two processes: reduction in total habitat area, which reduces effective population sizes; and insularization of local populations, which affects dispersal rates (Wilcox and Murphy 1985; Wilcove et al. 1986).

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 could also fragment native plant populations, which may increase the likelihood of invasion by exotic plants due to the increased interface between natural habitats and developed areas. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including but not limited to the fact that exotic plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. Exotic plant species may alter habitats and displace native species over time, leading to extirpation of native plant species and subsequently suitable habitat for special-status wildlife species. In addition, trash can attract predators such as ravens and coyotes that could impact the wildlife species in the project area.

Increased Human Activity. Increased human activity could result in the potential for trampling of vegetation outside of the impacts footprint, as well as soil compaction, and could affect wildlife habitat. Trampling can alter the ecosystem, creating gaps in native vegetation either leading to soil erosion or allowing exotic, non-native plant species to become established. Trampling may also affect the rate of rainfall interception and evapotranspiration, soil moisture, water penetration pathways, surface flows, and erosion. 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 Proposed Project footprint. In addition, increased

human activity and vehicle trips on the proposed roads could result in vehicle collisions with wildlife species.

Alteration of the Natural Fire Regime. The Proposed Project could potentially increase the risk of fire, including but not limited to fire associated with electrical shorts or electrical equipment malfunction. Shorter-than-natural fire return intervals can preclude recovery of the native vegetation between fires, weaken the ecological system, allow for invasion of exotic species, and in some cases, result in permanent transition of the vegetation to non-native communities, such as annual grassland and weedy communities (Keeley 1987; Malanson and O'Leary 1982; O'Leary et al. 1992). If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation.

The significance of these potential impacts is determined through application of the County Significance Guidelines described in Section 3.

2.5 Wetlands/Jurisdictional Waters

The site contains approximately 942 linear feet (0.04 acre) of non-wetland ephemeral drainages under the jurisdiction of ACOE, RWQCB, and CDFW.

2.5.1 Permanent Direct Impacts to Wetlands/Jurisdictional Waters

The potential for long-term or permanent direct impacts to non-wetland jurisdictional waters were evaluated by comparing the impact footprint with jurisdictional resources (Table 4). No impacts to jurisdictional resources are anticipated because the waters are within the impact neutral or open space areas; there is no proposed grading or fuel modification. To protect jurisdictional resources within the impact neutral areas, an open space easement will be placed on the impact neutral areas.

Table 4
Impacts to Jurisdictional Resources

Jurisdictional Resource	Existing On Site	On-Site Grading Impacts	Fuel Modification (no grading)	Off-Site Impacts	Impact Neutral	On-site Open Space Preserve	Off-site Open Space Preserve
ACOE/RWQCB/CDFW - Non-wetland waters or streambed	0.04 acre/942 linear feet	0.0	0.0	0.0	0.03 acre/3648 linear feet	0.01 acre/294 linear feet	438 linear feet

2.5.2 Indirect Impacts to Wetlands/Jurisdictional Waters

Potential short-term indirect impacts to wetlands or jurisdictional non-wetland waters in the Greenhills Ranch II Project area would primarily result from grading activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; increased human activity; and the introduction of chemical pollutants (including herbicides), similar to the discussion presented in Section 2.2.2 for indirect impacts to vegetation communities. These potential indirect impacts are discussed in Section 2.2.2. Based on that analysis, indirect impacts to wetlands or jurisdictional waters on site are not expected to occur or would be highly limited in nature.

Long-term permanent indirect impacts to non-wetland waters could result from the proximity of the Proposed Project to jurisdictional resources after construction, including impacts related to development of the site. Permanent indirect impacts that could affect jurisdictional resources include increased human activity, and alteration of the natural fire regime, similar to the discussion presented in Section 2.2.2 for indirect impacts to vegetation communities.

2.6 Habitat Connectivity and Wildlife Corridors

2.6.1 Permanent Direct Impacts to Habitat Connectivity and Wildlife Corridors

As described in Section 1.4.8, the study area is located within the South County MSCP. The site is designated as a PAMA and is adjacent to existing preserves (Figure 4). The study area is considered a stepping stone corridor or linkage for species such as bird, reptiles, and small to mid-size mammals (e.g., rabbits, bobcat, or coyote).

There are permanent impacts to 9.76 acres of Diegan coastal sage scrub, 2.27 acres of disturbed Diegan coastal sage scrub, 0.02 acre of Riversidian upland sage scrub, 4.52 acres of disturbed habitat, and 3.42 acres of developed land (Figure 6). Of these, Diegan coastal sage scrub is the primary vegetation community located within the stepping stone corridor or linkage, and provides potential habitat for a variety of species, including coastal California gnatcatcher. The other native vegetation communities occur between developed and disturbed areas and are less likely to be used by wildlife species. The disturbed habitat can provide some habitat for wildlife species for foraging or movement between habitat patches. The developed areas do not typically provide suitable habitat for wildlife species.

The Proposed Project is designed to maintain areas suitable for wildlife movement through open space designation in order to meet the criteria provided in the BMO. The following are the design criteria from the Subarea Plan for projects to protect the biological values of linkages and corridors (County of San Diego 1997):

- Habitat linkages as defined by the BMO, rather than just corridors, will be maintained.
- Existing movement corridors within linkages will be identified and maintained.
- Corridors with good vegetative and/or topographic cover will be protected.
- Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.
- The width of a linkage will be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor must be well vegetated and adequately buffered from adjacent development.
- If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide corridors are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.
- Visual continuity (i.e., long lines-of-sight) will be provided within movement corridors. This makes it more likely that the animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.
- Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.
- Barriers, such as roads, will be minimized. Roads that cross corridors should have 10-foot high fencing that channels wildlife to underpasses located away from interchanges. The length-to-width ratio for wildlife underpasses is less than 2, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.
- Where possible at wildlife crossings, road bridges for the vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition, and vegetated with native vegetation if possible; a line-of-sight to

the other end will be provided; and, if necessary, low-level illumination will be installed in the tunnel.

- If continuous corridors do not exist, archipelago (or stepping-stone) corridors may be used for short distances. For example, the gnatcatcher may use disjunct patches of sage scrub for dispersal if the distance involved is less than 1 to 2 miles.

The Proposed Project was designed to provide open space contiguous with adjacent open space or undeveloped lands and within the PAMA. Through this configuration, the design criteria of the BMO have been met. Specifically, the existing corridor and core will be maintained and continue to provide coastal sage scrub habitat for resident wildlife species, as well as cover and topographical relief for species. Because the majority of resident wildlife species that could utilize this corridor are likely small to mid-size (e.g., birds, rabbits, coyote), the widths of the proposed corridor are wide enough to continue to support these species. Mule deer were not observed on site and have only a moderate potential to occur; however, the Proposed Project would maintain and enhance existing wildlife corridors, and would not create any artificial wildlife corridors. The proposed corridor widths are shown on Figure 7, and are greater than 1,000 feet in most areas. Starting from the eastern side of the preserve, the corridor is 1530 feet and is located within the SDG&E easement. While that is considered impact neutral and will not be provided management, it does provide connectivity with other undeveloped lands. The corridor measures 580 ~~400~~ feet wide for approximately 765 feet in length west of the SDG&E easement. The corridor then widens to a width varying from 868 feet to 2,000 feet wide thus maintaining the function of the corridor. The corridor includes project proposed preserve and connects with the other preserve areas that are within the core. Since the Proposed Project is maintaining the existing corridor there are no pinch points, and the design would allow for the continued wildlife movement and use through the area (Figure 7). South of the site, there is either undeveloped land or land that is owned by the County. With additional mitigation in the form of the 10.23-acre area immediately adjacent to the project open space, more high quality habitat acreage for wildlife use is included. The condition within the corridor includes both north- and south-facing slopes, a valley that connects to Greenhills Ranch I preserve and a ridgeline within the 10.23-acre area that shows signs of wildlife use by having a system of wildlife trails on the ridgeline and along the slopes leading to the ridgeline. The ridgelines within the corridor provide visual continuity for wildlife movement. The varying and diverse composition of the habitat provides low vegetation and open areas as well as dense and tall woody shrubs for protection. There are no roads located within the corridor and there is minimal night-lighting due to few homes within proximity (i.e. limited building zone minimizes structures and certain uses within a 100-foot buffer between the open space preserve and development). The homes are above and set back from the proposed open space so wildlife will not be able to see the proposed homes from the habitat. The proposed open space will allow wildlife to continue to move through the undeveloped habitat similar to the existing conditions. No roads are proposed within the open

space preserve and the limited building zone minimizes structures and certain uses within a 100-foot buffer between the open space preserve and development but is not included in the preserve (Figure 7). The existing dirt road/trail located within the open space preserve will not be improved and will not be used as part of the development.

Implementation of the Greenhills Ranch II Project is not expected to result in long-term or permanent direct impacts to habitat connectivity, wildlife corridors, or core biological resource areas. The significance of these potential impacts is determined through application of the County Significance Guidelines described in Section 6.

2.6.2 Indirect Impacts to Habitat Connectivity and Wildlife Corridors

Short-term, construction-related, or temporary indirect impacts to habitat connectivity and wildlife corridors would primarily result from construction activities. Potential temporary indirect impacts are the same as those listed in Section 2.4.2 for special-status wildlife species, and could occur as a result from construction-related disturbance. As discussed in Section 2.4.2, vegetation clearing would be limited to the non-breeding season for most species, with the exception of raptors. The timing of clearing shall avoid the California gnatcatcher breeding season from February 15 through August 31 which also will avoid the general avian nesting season. The potential for raptor species to breed on site is low due to lack of suitable nest trees.

Long-term permanent indirect impacts could result from the proximity of the Proposed Project to special-status wildlife species after construction, including impacts related to development of the site. Permanent indirect impacts that could affect special-status wildlife species include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime, similar to the discussion presented in Section 2.4.2 for indirect impacts to wildlife species. The significance of these potential impacts is determined through application of the County Significance Guidelines described in Section 6.

3 SPECIAL-STATUS SPECIES

3.1 Guidelines for the Determination of Significance

The County's Guidelines for Determining Significance (County of San Diego 2010b) that follow are based on the criteria in the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The significance criteria include analysis of whether:

Guideline 4.1: The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special-status species listed in local or regional plans, policies, or regulations, or by CDFG[1] or USFWS.

A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.

B. The project would impact an on-site population of a County List A or B plant species, or a County Group 1 animal species, or a species listed as a state Species of Special Concern (SSC). Impacts to these species are considered significant; however, impacts of less than 5% of the individual plants or of the sensitive species' habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon.

C. The project would impact the local long-term survival of a County List C or D plant species or a County Group 2 animal species.

D. The project may impact arroyo toad aestivation, foraging, or breeding habitat. Any alteration of suitable habitat within 1 kilometer (3,280 feet) in any direction of occupied breeding habitat or suitable stream segments (unless very steep slopes or other barriers constrain movement) could only be considered less than significant if a biologically based determination can be made that the project would not impact the aestivation or breeding behavior of arroyo toads.

E. The project would impact golden eagle habitat. Any alteration of habitat within 4,000 feet of an active golden eagle nest could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the long-term survival of the identified pair of golden eagles.

F. The project would result in the loss of functional foraging habitat for raptors. Impacts to raptor foraging habitat is considered significant; however, impacts of less than 5% of the

[1] The name of CDFG has now changed to CDFW. The text of the guidelines still reflects the old name for consistency with the written guidelines.

raptor foraging habitat on a project site may be considered less than significant if a biologically based determination can be made that the project would not have a substantial adverse effect on the local long-term survival of any raptor species.

G. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, although smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species. Alteration of any portion of a core habitat could only be considered less than significant if a biologically based determination can be made that the project would not have a substantially adverse effect on the core area and the species it supports.

H. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing undeveloped lands or other natural habitat areas, to levels that would likely harm sensitive species over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown to adversely affect sensitive species.

I. The project would impact occupied burrowing owl habitat.

J. The project would impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

K. The project would impact occupied Hermes copper habitat.

L. The project would impact nesting success of the following sensitive bird species through grading, clearing, fire-fuel modification, and/or other noise-generating activities such as construction.

Species	Breeding Season
Coastal California gnatcatcher	February 15 to August 31
Coastal cactus wren	February 15 to August 15
Least Bell's vireo	March 15 to September 15
Southwestern willow flycatcher	May 1 to September 1
Tree-nesting raptors	January 15 to July 15
Ground-nesting raptors	February 1 to July 15
Golden eagle	January 1 to July 31
Light-footed clapper rail	February 15 to September 30

3.2 Analysis of Project Effects

3.2.1 Project Effects Relevant to Guideline 4.1.A

Coastal California gnatcatcher was observed during the 2015-6 surveys. The majority of these observations were within the proposed open space preserve; however, focused gnatcatcher surveys in 2016 provided more accurate information on the occupied habitat as shown in Figure 5. During the wildlife surveys, California gnatcatcher was detected. The habitat would be considered occupied by gnatcatcher since they have been observed multiple times and as part of the adjacent preserve. The Proposed Project impacts would result in impacts to approximately 12.05 acres of suitable habitat for coastal California gnatcatcher and would be considered a significant impact (**Impact W-1**). No impacts would occur to nests because removal of habitat is limited to the non-breeding season. No direct impacts to nests or individual birds are expected to occur.

Quino checkerspot butterfly was determined to not be present on site.

Potential indirect impacts to coastal California gnatcatcher are discussed in Section 3.2.8.2.

No other federally or state listed species are expected to be directly impact by implementation of the Greenhills Ranch II Project.

3.2.2 Project Effects Relevant to Guideline 4.1.B

3.2.2.1 Special-Status Plant Species (County List A and B Species)

No County List A or B plant species were observed during the October 2015 or May 2016 surveys, and no County List A or B plant species have potential to occur within the study area (Appendix C). Therefore, there will be no direct or indirect impacts County List A or B plant species.

3.2.2.2 Special-Status Wildlife Species (County Group 1 or State SSC)

Loss of special-status wildlife species (County Group 1 or state SSC) including individual mammals, reptiles and birds from construction-related activities could occur as a result of the Proposed Project impacts. Any potential direct impacts to nesting special-status bird species would be avoided by scheduling the project outside the bird breeding season for most upland scrub species (i.e., September 1 through February 14).

Coastal cactus wren was confirmed to be foraging on site however no cactus that are suitable for nesting are present. Additional County Group 1 and/or SSC species with potential to occur within the study area include orange-throated whiptail, red diamondback rattlesnake, silvery legless lizard, Blainville's horned lizard, southern California rufous-crowned sparrow, Bell's sparrow, turkey vulture, pallid bat, Dulzura pocket mouse, northwestern San Diego pocket mouse, San

Diego black-tailed jackrabbit, and southern grasshopper mouse (Appendix D). There will be permanent impacts to approximately 12.05 acres of native scrub habitat which species may use while foraging or moving between habitat patches. Loss of suitable habitat for these species would be considered a significant impact (**Impact W-1**). The foraging location of the cactus wren will be impacted however there is no potential for breeding on site however impacts to the foraging habitat would be considered a significant impact.

3.2.3 Project Effects Relevant to Guideline 4.1.C

3.2.3.1 Special-Status Plant Species (County List C and D Species)

Three County List D species, San Diego County viguiera, San Diego sagewort, and ashy spike-moss have been identified within the project area. There are permanent impacts to approximately 87 individuals (30%) of San Diego County viguiera; these impacts would be considered a significant impact (**Impact P-1**). However, no direct impacts are expected to occur to San Diego sagewort or ashy spike-moss.

No other County List C or D species were observed during the October 2015 or May 2016 surveys. No County List C plant species and no County List D plant species other than those observed on site have potential to occur within the study area (Appendix C).

3.2.3.2 Special-Status Wildlife Species (County Group 2)

Loss of individual County Group 2 species including individual mammals, reptiles and birds from construction-related activities could occur as a result of the Proposed Project impacts.

No County Group 2 species were observed during the 2015 surveys. County Group 2 wildlife species that are not discussed in Section 3.2.2.2, but have potential to occur on site include: San Diego tiger whiptail, long-eared myotis, western small-footed myotis, Yuma myotis, and mule deer. Reptiles are low-mobility species and direct impacts to this species could occur as a result of project activities. There are impacts to approximately 12.05 acres of suitable habitat for these species. Loss of suitable habitat for these species would be considered a significant impact (**Impact W-1**).

3.2.4 Project Effects Relevant to Guideline 4.1.D

No arroyo toads have been detected in the study area nor are they expected to occur. There is no wetland habitat or creeks on site; and the non-wetland ephemeral channels are not suitable for arroyo toad. Therefore, there will be no direct or indirect impacts to potential habitat for arroyo toad.

3.2.5 Project Effects Relevant to Guideline 4.1.E

No active nests or territories are known to occur within 4,000 feet of the project area. The nearest CNDDB occurrence for golden eagle is 5 miles northeast of the project area (CDFW 2015d). This species has low potential occur because there is generally unsuitable habitat for this species within the study area, as there is rural residential development, a lack of open grassy areas for foraging, and no suitable cliffs for roosting. Therefore, impacts to suitable foraging habitat would not be considered significant, and there are no direct impacts to golden eagle nests per the County significance criterion 4.1(e).

3.2.6 Project Effects Relevant to Guideline 4.1.F

Suitable foraging habitat in the project area for turkey vulture includes Diegan coastal sage scrub (including disturbed) and Riversidian upland scrub. There will be direct permanent impacts to approximately 12.05 acres of these habitat types. Based on the County significance criterion 4.1(f), direct impacts to functional raptor foraging habitat would be considered significant (**Impact W-1**).

3.2.7 Project Effects Relevant to Guideline 4.1.G

The project area for the Greenhills Ranch II Project is considered a core wildlife area, as described in Sections 1.4.8 and 2.6. However, implementation of the proposed project would not impact the viability of the core wildlife area as the open space preserve is designed to conserve 8.88 acres on site and 10.23 acres in off-site mitigation of coastal sage adjacent to existing MSCP preserves which will allow wildlife species to continue to utilize this area as habitat. Direct impacts to a wildlife core would be considered significant (**Impact W-1**).

3.2.8 Project Effects Relevant to Guideline 4.1.H

3.2.8.1 Special-Status Plant Species

Three special-status plant species were observed during the 2015 and 2016 surveys: San Diego County viguiera, San Diego sagewort, and ashy spike-moss. Approximately 33% of the San Diego County viguiera will be directly impacted as a result of the Proposed Project; no direct impacts will occur to San Diego sagewort or ashy spike-moss. The remaining 67% (193 individuals) of San Diego County viguiera are located in the open space preserve, including two populations over 600 feet from the proposed development and would not be indirectly affected by the short-term or long-term indirect impacts from the Proposed Project.

Short-term indirect impacts to San Diego County viguiera, San Diego sagewort, and ashy spike-moss as a result of the Greenhills Ranch II Project are described in Section 2.3.2 and include

generation of fugitive dust; the introduction of chemical pollutants (including herbicides); and increased human presence. Long-term indirect impacts to these species are described in Section 2.3.2 and include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime. Potential indirect impacts to special-status plants would be less than significant.

3.2.8.2 Special-Status Wildlife Species

Short-term, construction-related, indirect impacts to special-status wildlife species as a result of the Greenhills Ranch II Project are described in Section 2.4.2 and include generation of fugitive dust, noise, chemical pollutants, increased human activity, and non-native animal species during construction.

Long-term indirect impacts to special-status wildlife species as a result of the Greenhills Ranch II Project are described in Section 2.4.2 and include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime. Potential indirect impacts to special-status wildlife would be considered a significant impact (**Impact W-2**).

3.2.9 Project Effects Relevant to Guideline 4.1.I

No burrowing owls (*Athene cunicularia*) have been detected in the project area or are expected to occur (Appendix D); therefore, there are no impacts to occupied burrowing owl habitat.

3.2.10 Project Effects Relevant to Guideline 4.1.J

One coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) has been detected in the project area, and they are known to occur in the vicinity. However, there are no native cactus patches in the study area and therefore there are no impacts to occupied breeding cactus wren habitat. The cactus wren, since it was observed on the site, potentially forages within the area and on site. Direct impacts to coastal cactus wren foraging habitat would be considered significant (**Impact W-1**).

3.2.11 Project Effects Relevant to Guideline 4.1.K

There is no potential for Hermes copper butterflies (*Lycaena hermes*) to occur in the study area based on the absence of the larval host plant (i.e., true limiting factor), spiny redberry.

3.2.12 Project Effects Relevant to Guideline 4.1.L

Only one of the species, coastal California gnatcatcher, listed in Guideline 4.1(L) has potential to nest in the study area. Direct impacts to coastal California gnatcatcher habitat would be considered significant (**Impact W-1**). Indirect impacts to coastal California gnatcatcher would be considered

significant (**Impact W-2**). No impacts would occur to nests because removal of habitat is limited to the non-breeding season. No direct impacts to nests or individual birds are expected to occur. Additionally, all vegetation clearing will occur during the non-breeding season for most upland scrub species (September 1 and February 14). Therefore, no significant impacts to the nesting success of these species are anticipated.

3.3 Cumulative Impact Analysis

In an effort to eliminate cumulative impacts to sensitive biological resources throughout San Diego, the County is participating in a regional conservation planning effort, San Diego MSCP. This planning effort provides a regional plan for preservation and mitigation of sensitive biological resources within a portion of the County, within which this project is located. The ultimate goal of this plan is the establishment of biological reserve areas in conformance with the State of California NCCP Act. The San Diego Multiple Species Conservation Plan (MSCP) is a long-term regional conservation plan established to protect sensitive species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another.

Implementation of the Proposed Project would contribute to the cumulative loss of biological resources within the County of San Diego MSCP Subarea Plan. However, Proposed Project-related cumulative impacts to species covered under the MSCP, including California gnatcatcher and cactus wren, have already been deemed mitigated; therefore, no additional mitigation for cumulative impacts is required.

As described in Section 2.6, the project study area is considered a part of a core for species such as bird, reptiles, and small to mid-size mammals (e.g., rabbits, bobcat, or coyote). The Proposed Project is designed to maintain contiguous areas suitable for wildlife movement through open space designation and meets the criteria provided in Attachment H of the BMO. Specifically, the existing corridor and linkage will be maintained and continue to provide coastal sage scrub habitat for wildlife species, as well as cover and topographical relief including ridgelines and valleys for species. Through this configuration, the design criteria of the BMO have been met. Therefore, implementation of the Proposed Project, combined with the reasonably foreseeable cumulative projects, is not expected to result in impacts to habitat connectivity, wildlife corridors, or core biological resource areas. Further cumulative impact analysis is provided in Section 6.3 for Wildlife Corridors and Nursery Sites as requested by the County.

3.4 Mitigation Measures and Design Considerations

The applicant is proposing mitigation in the form of an open space preserve designed to preserve a total of 8.89 acres within the property with 8.88 acres of contiguous coastal sage scrub adjacent

to existing MSCP preserves (Figure 7). The applicant is also proposing mitigation in the form of the preservation of the adjacent 10.23 acres of coastal sage scrub to provide a total of 19.11 acres of coastal sage scrub for mitigation. This proposed additional off-site mitigation is entirely composed of highly diverse and intact coastal sage scrub dominated by California sagebrush, lemonadeberry, lauren sumac, California buckwheat, and includes a non-wetland waters, a small patch of San Diego County viguiera, and a pair of California gnatcatchers. It is high quality habitat that is similar to and contiguous with the on-site open space. The off-site mitigation area is also connected to other preserve areas to the west. It includes slope areas and well as a ridgeline providing diversity in topography and visual continuity. The open space fencing and signage is shown on Figure 8.

Mitigation measures and design considerations for special-status plant species will be determined following the impacts analysis.

MM-BIO-1 The applicant will preserve in permanent open space 8.89 acres on site and 10.23 acres off-site and adjacent of vegetation communities generally consistent with the assemblage of vegetation communities impacted by the Proposed Project. This will include preservation of 19.11 acres of Diegan coastal sage scrub to mitigate for project impacts to 12.05 acres of native vegetation communities; thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species. Mitigation requirements are based on the South County Subarea Plan's Schedule of Mitigation Ratios table (Table 4-8, County of San Diego 1997). Both the impact and preserve areas are considered biological resource core area. Based on this information, the mitigation ratios and acreages presented in Table 5 are required.

Table 5
Mitigation for Vegetation Community Impacts

MSCP Tier	Total Impact (acres)	Mitigation Ratio	Required Mitigation (acres)	Open Space Preserve On site (acres)*	Open Space Preserve Off site (acres)*
Tier II	12.05	1.5:1	18.08	8.88	10.23
Tier IV	7.94	N/A	--	0.01	--
Total	**19.99**		**18.08**	**8.89**	**10.23**

* Mitigation acreage was set prior to final impacts analysis so the acreage for mitigation is slightly more than the 1.5:1 ratio that is required.

The applicant shall provide for the conservation habitat of the same amount and type of land located in San Diego County as indicated below:

a. A Resource Management Plan (RMP) shall be prepared and approved pursuant to the County of San Diego Biological Report Format and Content

Requirements to the satisfaction of the director of Department of Planning & Development Services (PDS). If the off-site mitigation is proposed to be managed by Department of Parks and Recreation (DPR), the RMP shall also be prepared and approved to the satisfaction of the director of DPR. [Note: a Conceptual RMP is provided as Appendix E.]

b. An open space easement over the land shall be dedicated to the County of San Diego or like agency to the satisfaction of the Director of PDS. The land shall be protected in perpetuity.

c. The dedication of the land and the selection of the Resource Manager and establishment of an endowment to ensure funding of annual ongoing basic stewardship costs shall be complete prior to approval of the RMP.

d. In lieu of providing a private habitat manager, the applicant may contract with a federal, state, or local government agency with the primary mission of resource management to take fee title and manage the mitigation land). Evidence of satisfaction must include a copy of the contract with the agency, and a written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like functioning habitat, and (2) the land will be managed by the agency for conservation of natural resources in perpetuity.

Documentation: The RMP shall be prepared and shall be submitted to the PDS.

Timing: Prior to approval of any plan or issuance of any permit, and prior to use of the premises in reliance of this permit, the mitigation shall occur.

MM-BIO-2 To avoid any direct impacts to migratory birds protected under the Migratory Bird Treaty Act, removal of habitat that supports active nests in the limits of grading or fuel modification zones should occur outside of the breeding season for these species (February 15 through August 31). In lieu of avoidance of the breeding season, a nesting bird survey shall be conducted 72 hours prior to impact and any nesting observed shall be avoided until nesting is confirmed completed by the monitoring biologist.

MM-BIO-3 To prevent inadvertent disturbance to areas outside the limits of grading, all grading located shall be monitored by a biologist. Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the preserve and the off-site areas, the Proposed Project applicant 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 periodically during 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 and grubbing 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 inspection of fencing and erosion control measures (daily during rain events) near proposed preservation areas periodically during grading.

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 periodically during grading to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved.

e. Verify that the construction site is implementing the stormwater pollution prevention plan (SWPPP) best management practices (BMPs).

f. Periodically monitor the construction site to see that dust is minimized and that manufactured slopes are revegetated as soon as possible.

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

MM-BIO-4 Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the Proposed Project applicant 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 Preserve and for all off-site facilities constructed within the Preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of Planning and 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.

MM-BIO-5 The applicant shall prepare a storm water pollution prevention plan (SWPPP). The SWPPP will include, at a minimum, the best management practices (BMPs) listed below. The combined 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 incorporated into the SWPPP and 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, including wetlands or riparian areas, except as authorized by applicable law and permit(s), including permits and authorizations approved by the U.S. Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB).
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 within a jurisdictional waters, 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 jurisdictional waters, including wetlands and riparian areas.
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, including wetlands and riparian areas.

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, including wetlands and riparian areas, where petroleum products or other pollutants from the equipment may enter these areas.

MM-BIO-6 No clearing or grubbing activities may occur within habitat identified by a qualified biologist as being occupied by coastal California gnatcatcher during the breeding season for the species (February 15 through August 31, annually).

MM-BIO-7 All vegetation clearing must be done outside of the breeding season. Construction may occur during the breeding season is a waiver or approval is received from the County and the Wildlife Agencies. If construction within suitable nesting habitat occurs during the breeding season and to address avoidance of indirect impacts, a nesting survey for birds protected under Migratory Bird Treaty Act, shall be conducted prior to the onset of construction. Construction may occur if active nests can be avoided and provided an adequate buffer or noise levels are documented to be below 60 A weighted decibels (dBA) equivalent sound level (Leq) at the nest site.

MM-BIO-8 To protect the preserve from entry upon completion of house construction, an open space fence or wall shall be installed along all open space edges where open space is adjacent to residential uses, not including the impact neutral open space or easements, and as indicated in the RMP (Figure 8). The barrier must be a minimum construction of vertical metal fencing, but may be other suitable construction material, as approved by Department of Planning and Development Services and the Director of Parks and Recreation. To protect the Preserve from entry, informational signs shall be installed, where appropriate, along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the RMP. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches in size, on posts not less than 3 feet in height from the ground surface, and state, "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited." Signs may be placed on open space fences instead of independent posts.

MM-BIO-9 Prior to installation of any landscaping, plant palettes shall be reviewed by the Project Biologist to minimize the effects that proposed landscape plants could have on biological resources outside of the impact footprint due to potential

naturalization of landscape plants in the open space. Landscape plants will not include invasive plant species on the most recent version of the Cal-IPC California Invasive Plant Inventory for the project region. Landscape plans will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates. Sections of Fuel Mod Zone 2 adjacent to Preserve Open Space will include only fire-safe native plants, such as those described in page 4 of County form PDS 199.

MM-BIO-10 Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the San Diego County agriculture commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a pest control advisor (PCA) and implemented by a licensed applicator for the project owner. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the San Diego County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, the San Diego County agriculture commissioner, and Cal-IPC with the goal of controlling populations before they start producing seeds. Weed control shall be implemented at least once per year throughout the life of the project.

MM-BIO-11 To minimize the potential exposure of the project area to fire hazards, all features of the Greenhills Ranch II Fire Protection Plan shall be implemented in conjunction with development of the Greenhills Ranch II.

3.5 Conclusions

3.5.1 Special-Status Plant Species

Impact P-1 There are impacts to approximately 12.05 acres of suitable habitat for special-status plants. There are three special-status plant species recorded on site–San Diego County viguiera, San Diego sagewort, and ashy spike-moss. According to the Subarea Plan and Section 86.507(a)(1)(c) of the BMO, impacts to County List D plants are mitigated based on habitat requirements rather than specific plant populations; therefore, impacts to San Diego County viguiera shall be mitigated through MM-BIO-1 (preservation of 8.88 acres of suitable habitat on site and 10.23 acres of suitable habitat off site within open space), and is considered less than significant with incorporation of this mitigation measure. No direct impacts to San Diego sagewort and ashy spike-moss, a County List D plant, are expected with implementation of the proposed project.

3.5.2 Special-Status Wildlife Species

Impact W-1 There are impacts to 12.05 acres of native vegetation. Impacts to 12.05 acres of suitable coastal California gnatcatcher habitat and suitable coastal cactus wren foraging habitat shall be mitigated through MM-BIO-1 (preservation of a total of 19.11 acres on site and off site in open space), which conserves 19.11 acres contiguous coastal sage scrub adjacent to existing MSCP preserves (Figure 7). Impacts to potential nesting coastal California gnatcatchers shall be mitigated through avoidance of clearing occupied habitat between February 15 through August 31 per MM-BIO-2 (avoidance of nesting season) and by conducting preconstruction surveys for the species. These mitigation measures meet the criteria in the Subarea Plan and Sections 86.507(2)(d) and 86.507(4)(b) of the BMO for impacts to coastal California gnatcatcher, and impacts are considered less than significant with incorporation of these mitigation measures.

Impacts to suitable habitat for potentially occurring wildlife species described in Section 3.2 shall be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space); and nesting birds through MM-BIO-2 (avoidance of nesting season), and impacts are considered less than significant with incorporation of these mitigation measures.

Impact W-2 Short-term indirect impacts to special-status wildlife species shall be mitigated through MM-BIO-3 (biological monitoring) and MM-BIO-4 (temporary construction fencing), which prevent inadvertent disturbance outside of the impact areas, monitoring fencing and erosion control measures, and minimizes impacts to wildlife species; MM-BIO-5 (preparation of a SWPPP and BMPs), which prohibits litter that attract non-native or nuisance wildlife and pets on site; MM-BIO-7 (limitations on construction activities near occupied coastal California gnatcatcher habitat), which prevents indirect impacts to breeding gnatcatchers between February 15 and August 15; and MM-BIO-3 (control fugitive dust), which will minimize impact to surrounding habitat for wildlife species during construction activities Impacts are considered less than significant with incorporation of these mitigation measures.

Long-term indirect impacts to special-status wildlife species shall be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space), which conserves 19.11 acres of contiguous coastal sage scrub adjacent to existing MSCP preserves and minimizes the effects of habitat fragmentation; MM-BIO-8 (permanent fencing and signage), which prevents access into the preserve; MM-BIO-9 (landscaping palettes), which prohibits the planting of invasive plant

species; MM-BIO-10 (weed control treatment), which provides control measures for non-native, invasive species; and MM-BIO-11 (fire protection plan), which minimizes fire exposure to the preserve. Impacts are considered less than significant with incorporation of these mitigation measures.

Table 6 summarizes the Proposed Project's compliance with the Subarea Plan and Sections 86.507(2)(d) and 86.507(5) of the BMO for which special-status wildlife species that have moderate or high potential to occur in the study area and are Covered species under the Final MSCP Plan (County of San Diego 1998).

Table 6
Mitigation for Impacts to Special-Status Wildlife Species

Species	Suitable Habitat Impacts	Suitable Habitat Open Space Preserve	Rationale for Mitigation Compliance[1]
orangethroat whiptail	12.05 acres	19.11 acres	Conservation of suitable habitat contiguous with existing MSCP preserves minimizes edge effects to suitable habitat for species (MM-BIO-1).
Blainville's horned lizard	12.05 acres	19.11 acres	Conservation of suitable habitat contiguous with existing MSCP preserves minimizes edge effects to suitable habitat for species (MM-BIO-1).
Coastal California gnatcatcher	12.05 acres	19.11 acres	Conservation of suitable habitat contiguous with existing MSCP preserves minimizes edge effects to suitable habitat for species (MM-BIO-1) and avoidance of the breeding season (MM-BIO-2)
southern California rufous-crowned sparrow	12.05 acres	19.11 acres	Conservation of suitable habitat contiguous with existing MSCP preserves minimizes edge effects to suitable habitat for species (MM-BIO-1). MM-BIO-9 includes weed control measures to minimize growth of non-native species that can invade open areas in native habitat, reducing its quality.
mule deer	12.05 acres	19.11 acres	Conservation of suitable habitat contiguous with existing MSCP preserves existing habitat linkages in this area, which may be used by this species (MM-BIO-1).

[1] This is based on the conditions provided in Table 3-5 of the Final MSCP Plan (County of San Diego 1998).

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4 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITY

4.1 Guidelines for the Determination of Significance

The County of San Diego's (County's) *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

Guideline 4.2: The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.

A. Project-related grading, clearing, construction, or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as listed in Table 5, County of San Diego 2010a, excluding those without a mitigation ratio) on or off the project site. This Guideline would not apply to small remnant pockets of habitat that have a demonstrated limited biological value. No de minimus standard is specified under which an impact would not be significant; however, minor impacts to native or naturalized habitat that is providing essentially no biological habitat or wildlife value can be evaluated on a case-by-case basis to determine whether the projected impact may be less than significant. For example, an impact to native or naturalized upland habitat under 0.1 acre in an existing urban setting may be considered less than significant (depending on a number of factors). An evaluation of this type should consider factors including, but not limited to, type of habitat, relative presence or potential for sensitive species, relative connectivity with other native habitat, wildlife species and activity in the project vicinity, and current degree of urbanization and edge effects in project vicinity, etc. Just because a particular habitat area is isolated, for example, does not necessarily mean that impacts to the area would not be significant (e.g., vernal pools). An area that is disturbed or partially developed may provide a habitat "island" that would serve as a functional refuge area "stepping stone" or "archipelago" for migratory species.

B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by U.S. Army Corps of Engineers (ACOE), California Department of Fish and Game (CDFG), and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the

substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historically low groundwater levels.

D. The project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing undeveloped lands or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term. The following issues should be addressed in determining the significance of indirect impacts: increasing human access; increasing predation or competition from domestic animals, pests, or exotic species; altering natural drainage; and increasing noise and/or nighttime lighting to a level above ambient that has been shown by the best available science to adversely affect the functioning of sensitive habitats.

E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands. If the project is subject to the Resource Protection Ordinance (RPO), buffers of a minimum of 50 feet and a maximum of 200 feet to protect wetlands are required based on the best available science available to the County at the time of adoption of the ordinance. The following examples provide guidance on determining appropriate buffer widths:

- A 50-foot wetland buffer would be appropriate for lower quality RPO-wetlands where the wetland has been assessed to have low physical and chemical functions, vegetation is not dominated by hydrophytes, soils are not highly erosive, and slopes do not exceed 25%.
- A wetland buffer of 50 to 100 feet is appropriate for moderate- to high-quality RPO-wetlands that support a predominance of hydrophytic vegetation or wetlands within steep slope areas (greater than 25%) with highly erosive soils. Within the 50- to 100-foot range, wider buffers are appropriate where wetlands connect upstream and downstream, where the wetlands serve as a local wildlife corridor, or where the adjacent land use(s) would result in substantial edge effects that could not be mitigated.
- Wetland buffers of 100 to 200 feet are appropriate for RPO-wetlands within regional wildlife corridors or wetlands that support significant populations of wetland-associated sensitive species, or where stream meander, erosion, or other physical factors indicate a wider buffer is necessary to preserve wildlife habitat.
- Buffering of greater than 200 feet may be necessary when an RPO-wetland is within a regional corridor or supports significant populations of wetland-associated sensitive species and lies adjacent to land use(s) that could result in a high degree of edge effects

within the buffer. Although the RPO stipulates a maximum of 200 feet for RPO-wetland buffers, actions may be subject to other laws and regulations (such as the Endangered Species Act) that require greater wetland buffer widths.

4.2 Analysis of Project Effects

4.2.1 Project Effects Relevant to Guideline 4.2.A

There are permanent direct impacts to 19.99 acres of vegetation communities/land covers (Table 3), including impacts to 12.05 acres of MSCP Tier II vegetation communities (Diegan coastal sage scrub, disturbed Diegan coastal sage scrub, and Riversidian upland sage scrub). Impacts to the Tier II vegetation communities are considered a significant impact (**Impact V-1**).

4.2.2 Project Effects Relevant to Guideline 4.2.B

There are no wetlands within the study area. There are no direct impacts to non-wetland waters of the U.S./state under the combined jurisdiction of ACOE/RWQCB/CDFW. Therefore, there are no significant impacts associated with this guideline.

4.2.3 Project Effects Relevant to Guideline 4.2.C

The Greenhills Ranch II Project will not draw any groundwater from the Proposed Project site. Additionally, there are no groundwater-dependent species on site, such as riparian species. Therefore, there are no significant impacts associated with this guideline.

4.2.4 Project Effects Relevant to Guideline 4.2.D

Potential indirect impacts to special-status vegetation communities and jurisdictional resources in and around the Greenhills Ranch II Project area would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust and the introduction of chemical pollutants (including herbicides). Long-term indirect impacts to special-status vegetation communities include habitat fragmentation, non-native invasive species, increased human activity, and alteration of the natural fire regime. Both short-term and long-term indirect impacts would be considered a significant impact (**Impact V-2**).

4.2.5 Project Effects Relevant to Guideline 4.2.E

Greenhills Ranch II Project

The Greenhills Ranch II Project has no RPO wetland resources, and therefore this guideline does not apply.

4.3 Cumulative Impact Analysis

There are no project impacts to riparian habitat or to RPO wetland resources. Cumulative impacts to covered sensitive habitat communities are addressed by the MSCP as discussed in Section 3.3.

4.4 Mitigation Measures and Design Considerations

Direct impacts to vegetation communities shall be mitigated through MM-BIO-1 described in Section 3.4; and indirect impacts to vegetation communities shall be mitigated through MM-BIO-5 through MM-BIO-10 described in Section 3.4.

4.5 Conclusions

Impact V-1 Impacts to 12.05 acres of MSCP Tier II vegetation communities shall be mitigated through MM-BIO-1 (preservation of 19.11 acres on site and off site in open space). Based on the South County MSCP's Schedule of Mitigation Ratios table (Table 4-8, County of San Diego 1997), impacts to 12.05 acres of Tier II vegetation communities require 19.11 acres of in-kind mitigation; therefore, preservation of 19.11 acres of a Tier II vegetation community exceeds the minimum criteria and provides a 1.5 to 1 mitigation ratio. This mitigation meets the criteria in the Subarea Plan and Section 86.506 of the BMO, and is considered less than significant with incorporation of these mitigation measures.

Impact V-2 Short-term indirect impacts to special-status vegetation communities shall be mitigated through MM-BIO-5 (preparation of a SWPPP and BMPs), which prevents chemical pollutants from entering surrounding vegetation; and MM-BIO-3 (control fugitive dust), which will minimize dust impacts to surrounding vegetation communities during construction activities.

Long-term indirect impacts to special-status wildlife species shall be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space), which conserves 19.11 acres of a Tier II vegetation community adjacent to existing MSCP preserves and minimizes the effects of habitat fragmentation; MM-BIO-8 (permanent fencing and signage), which prevents access into the preserve; MM-BIO-8 (landscaping palettes), which prohibits the planting of invasive plant species; MM-BIO-9 (weed control treatment), which provides control measures for non-native, invasive species; and MM-BIO-10 (fire protection plan), which minimizes fire exposure to the preserve. Impacts are considered less than significant with incorporation of these mitigation measures.

5 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guideline for the determination of significance comes directly from the County's guidelines (County of San Diego 2010a) and refers only to federally protected wetlands.

Guideline 4.3: The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

5.2 Analysis of Project Effects

5.2.1 Project Effects Relevant to Guideline 4.3

There are no federal wetlands within the study area.

5.3 Cumulative Impact Analysis

This project will not impact federal wetlands and will have no cumulative effect on federal wetlands.

5.4 Mitigation Measures and Design Considerations

There are no federal wetlands within the study area.

5.5 Conclusions

There are no federal wetlands within the study area.

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6 WILDLIFE MOVEMENT AND NURSERY SITES

6.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in the CEQA Guidelines (14 CCR 15000 et seq.) and the Biological Mitigation Ordinance and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

Guideline 4.4: The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

A. The project would impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

B. The project would substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage. For example, if the project proposes roads that cross corridors, fencing that channels wildlife to underpasses located away from interchanges will be required to provide connectivity. Wildlife underpasses shall have dimensions (length, width, height) suitable for passage by the affected species based on a site-specific analysis of wildlife movement. Another example is increased traffic on an existing road that would result in significant road-kill or interference with an existing wildlife corridor/linkage.

C. The project would create artificial wildlife corridors that do not follow natural movement patterns; for example, constraining a corridor for mule deer or mountain lion to an area that is not well-vegetated or that runs along the face of a steep slope instead of through the valley or along the ridgeline.

D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels likely to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path. The adequacy of the width shall be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses.

Where there is limited topographic relief, the corridor should be well-vegetated and adequately buffered from adjacent development. Corridors for bobcats, deer, and other large animals should reach rim-to-rim along drainages.

F. The project does not maintain adequate visual continuity (i.e., long lines of site) within wildlife corridors or linkage. For example, development (such as homes or structures) sited along the rim of a corridor could present a visual barrier to wildlife movement. For stepping-stone/archipelago corridors, a project does not maintain visual continuity between habitat patches.

6.2 Analysis of Project Effects

6.2.1 Project Effects Relevant to Guideline 4.4.A

As described in Section 2.6, the existing corridor and linkage will be maintained and continue to provide coastal sage scrub habitat for wildlife species, as well as cover and topographical relief for species. Therefore, direct impacts are considered less than significant.

Long-term direct impacts and short-term and long-term indirect impacts are discussed in detail in Section 2.6 and are considered a significant impact (**Impact WM-1**).

6.2.2 Project Effects Relevant to Guideline 4.4.B

The Greenhills Ranch II project is surrounded by undeveloped lands and rural residences. The Proposed Project is designed to maintain areas suitable for wildlife movement through open space contiguous with adjacent open space and PAMA. Through this configuration, the design criteria for wildlife linkages of the BMO have been met. Additionally, no roads are proposed that would cross the open space preserve and interfere with wildlife movement. Therefore impacts are considered less than significant.

6.2.3 Project Effects Relevant to Guideline 4.4.C

The Greenhills Ranch II Project would maintain and enhance existing wildlife corridors, and therefore the Proposed Project would not create any artificial wildlife corridors and would not have a significant impact. Therefore impacts are considered less than significant.

6.2.4 Project Effects Relevant to Guideline 4.4.D

Lighting associated with the Proposed Project is limited to the development located away from the preserve. There is a fuel modification zone and limited building zone that provides a buffer between the development and open space preserve. Additionally, the preserve maintains widths of a minimum of 400 feet for a short distance and typically over 1,000 feet in the preserve, thus

reducing the potential effects of nighttime lighting. No lighting will be cast into the preserve. There would be short-term, construction-related noise as described in Section 2.6. Long-term noise impacts are not expected to affect wildlife for the reasons listed above for lighting. Potential short-term noise impacts, specifically to occupied habitat for coastal California gnatcatcher would be considered significant (**Impact WM-2**).

6.2.5 Project Effects Relevant to Guideline 4.4.E

The Greenhills Ranch II Project would maintain existing wildlife corridors however impacts to 12.05 acres of native habitat will occur. The proposed corridor widths are shown on Figure 7, and are generally greater than 1,000 feet in all areas, with the exception of a 765-foot long segment that is approximately ~~400~~ 580-feet wide. The proposed open space, with the addition of the 10.23 acres of contiguous off-site mitigation and the configuration to be contiguous with other preserves and undeveloped lands, will allow wildlife to continue to move through the undeveloped habitat similar to the existing conditions. Direct Impacts to the native habitat within the wildlife corridor would be considered significant (**Impact W-1**).

6.2.6 Project Effects Relevant to Guideline 4.4.F

The Greenhills Ranch II Project is located in an area that has existing residential and other development, as well as roads. The proposed project will maintain the existing wildlife corridors and would not impact visual continuity and would not have a significant impact.

6.3 Cumulative Impact Analysis

Cumulative impacts are evaluated and addressed under the MSCP as described in Section 3.3. However, the County requested additional review of cumulative impacts for wildlife corridors.

A reasonable list of cumulative projects was compiled based on past, present, and future projects that could also cumulatively contribute to the Greenhills Ranch II Project significant biological impacts. Based on discussions with the County, the cumulative projects study area that was selected identified a total of 6 projects within the study area that could potentially result in cumulative impacts to biological resources. Each project is numbered, which corresponds to Figure 9.

Cumulative effects on biological resources may result from increased development and changes in land use. Whether or not the combined effects of the proposed project would result in cumulative adverse effects is primarily dependent on the project's mitigation measures and consistency with the MSCP as well as other relevant individual development project impact review and requirements imposed by local, state, and federal authorities pursuant to their approval processes for other reasonably foreseeable actions. As described in this document, potentially significant

impacts to biological resources will be mitigated to less-than-significant levels and the project is consistent with the requirements of the MSCP. Specifically, the applicant will preserve in permanent open space 19.12 acres of vegetation communities generally consistent with the assemblage of vegetation communities impacted by the Proposed Project. This will include preservation of 19.11 acres of Diegan coastal sage scrub to mitigate for project impacts to 12.05 acres of native vegetation communities, which is the required 1.5:1 mitigation per the MSCP; thereby preserving compensatory habitat that provides equal or greater benefit to plant and wildlife species.

The Implementing Agreement between the County, USFWS, and CDFW was signed on March 17, 1998. This analysis categorizes projects by those projects where the CEQA document was approved or certified before the Implementing Agreement was signed and the MSCP was officially implemented, which is discussed first, and projects where the CEQA document was certified or approved after the Implementing Agreement was signed, which is discussed second. The reason for this categorization is the level of detail and type of analysis in each CEQA document is similar depending on its timing in relationship to the implementation of the MSCP.

Projects Analyzed Before MSCP Implementation

Projects where the CEQA document was certified or approved before the Implementing Agreement was signed include the following projects: (1) No. 1: Goodman, Tenative Map (TM) 5009RPL; (2) No. 2: Lake Jennings Ranch (Quail Canyon), TM 3626; and (3) No. 3: Lakeside-Boukai Subdivision (Woodridge), TM 4874R. Because the impacts in the CEQA documents are not quantified by MSCP vegetation types, these three projects are analyzed separately. All three of these project have already been built.

The 4.6-acre Goodman project (Project No. 1) did not result in significant impacts to biological resources (County of San Diego 1992) and therefore, the Goodman project would not contribute to a cumulative impact to biological resources.

The Lake Jennings Ranch (Quail Canyon) (Project No. 2) contained sensitive biological resources including 16 acres of oak riparian and 147 acres of coastal sage scrub. Additionally, one plant species, San Diego sunflower (*Bahiopsis* [*Viguiera*] *laciniata*), including 600 to 800 individuals, was observed on site. Also, California red-legged frog (*Rana draytoni*) was identified on the property. Two lizard species—coast horned lizard (*Phrynosoma blainvillei*) and orange-throated whiptail lizard (*Cnemidophorus hyperythrus beldingi*)—are reported from the site in suitable habitat. An open space easement was granted to the County over areas identified by the Environmental Analysis Division for avoidance and conservation and shown on the Final Map (County of San Diego 1977). With implementation of mitigation, this project was considered to have a less-than-significant impact on biological resources. Based on an analysis of the vegetation

communities in SanGIS (SanGIS 2017) the following native vegetation were either conserved lands or avoided and currently remain on the site: 51 acres of Diegan coastal sage scrub; 4 acres of chaparral; 2 acre of southern coast live oak riparian forest; and 1 acre of riparian woodlands.

The Lakeside-Boukai Subdivision (Woodridge) (Project No. 3) resulted in impacts of 91.4 acres of land, which included approximately 33 acres of impacts to Diegan sage scrub. The project preserved 56% (51.6 acres) of the Diegan sage scrub by placement of the land into a dedicated open space easement. Additionally, 91.4 acres of land was conserved off-site, thus, a replacement of the entire impact at a 1:1 ratio. Thus, the Lakeside-Boukai Subdivision (Woodridge) project, with the mitigation, would not contribute to a cumulative impact to biological resources.

The proposed project, in combination with Projects Nos. 1–3, would not contribute to cumulative impacts within the region because all significant impacts are fully mitigated either through avoidance of sensitive biological resources at the final map stage or through on-site and off-site habitat preservation.

Projects Analyzed After MSCP Implementation

Projects where the CEQA document was approved or certified after the Implementing Agreement was signed and the MSCP was officially implemented include the following projects: (1) No. 4: Riker Ranch Subdivision Project, TM 5286RPL; (2) No. 5: Swaim-Adlai Road Major Subdivision, TM5356 RPL and (3) No. 6: Greenhills Ranch 1, TM5140RPL7. Projects No. 5 and 6 have been constructed and Project No. 4 has not been constructed.

Table 7 summarizes the impacts and mitigation for the proposed project, Projects No. 4, 5 and 6. The Riker Ranch Subdivision Project (Project No. 4) impacts that require mitigation under the MSCP were limited to 1.4 acres of non-native grasslands and the required mitigation, or 0.7 acres, for Tier III habitat (0.5:1) was proposed. Additionally, this project would be constructed outside of the PAMA. The Swaim-Adlai Road Major Subdivision (Project No. 5) included impacts to 2.61 acres of coastal sage scrub, 0.70 acre of non-native grasslands, 0.78 acre of eucalyptus woodlands, and 0.19 acre of disturbed habitat. Project mitigation included the preservation of 3.91 acres of coastal sage scrub and 0.35 acres of non-native grasslands or equivalent Tier II and III habitat credits. Mitigation for direct and indirect impacts was met through the off-site purchase of 3.70 acres of coastal sage scrub and 0.30 acre of non-native grasslands. In addition, the on-site easements will protect the off-site preserved PAMA lands, which may support the California gnatcatcher, from project and future residential encroachment. The Greenhills Ranch I Project (Project No. 6) impacts include 0.2 acre of coastal sage scrub. Mitigation was the set aside of 39.5 acres within PAMA that includes 38.4 acres of coastal sage scrub. Thus all of the projects include adequate mitigation for impacts to sensitive habitats at the 1.5:1 or greater mitigation ratio.

Table 7
Proposed Project and Cumulative Project Nos. 4, 5, 6 Impacts and Mitgation

MSCP Tier (Required Mitigation)	Habitat/Vegetation Community	Proposed Project		Project No. 4		Project No. 5		Project No. 6	
		Impacts	*Mitigation*	*Impacts*	*Mitigation*	*Impacts*	*Mitigation*	*Impacts*	*Mitigation*
Tier II (1.5:1)	Riversidian Upland Sage Scrub	0.02	19.11[1]	—	—	—	—	--	--
	Diegan Coastal Sage Scrub	9.76		—	—	2.61	7.61[2]	0.2	37.7
	Disturbed Diegan Coastal Sage Scrub	2.27		—	—	—	—	--	0.7
	Subtotal Tier II	*12.05*	*19.11*	—	—	*2.61*	*7.61*	*0.2*	*38.4*
Tier III (0.5:1)	Non-native grassland	—		1.4	0.70	0.70	0.65[3]	--	--
	Subtotal Tier III	—	—	*1.4*	*0.7*	*0.70*	*0.65*	--	--
Tier IV[4] (0:1)	Eucalyptus Woodland	—		1.2	0[1]	0.78	—	--	0.2
	Developed	3.42	0.01	—	—	—	—	--	--
	Disturbed Habitat	4.52		0.6	0[1]	0.91	—	8.25	0.9
	Subtotal Tier IV	*7.94*	*0.01*	*1.8*	*0*	*1.69*	—	*8.25*	*1.1*
	Total	**19.99**	**19.12**	**3.2**	**0.7**	**5.0**	**8.26**	**8.27**	**39.5**

1 Mitigation will include coastal sage scrub, MSCP Tier II at a 1.5:1.
2 Mitigation includes 3.91 acre of on-site mitigation and 3.70 acres of off-site mitigation.
3 Mitigation includes 0.35 acre of on-site mitigation and 0.30 acre of off-site mitigation.
4 No mitigation is required for impacts to Tier IV habitat.

Five of the projects on the cumulative projects list have been constructed. Project No. 4 has not been built but would be constructed outside of the PAMA and does not contribute habitat for connectivity to the Lakeside Archipelago, an existing regional wildlife linkage within the MSCP, and is within a federal and state PAMA. The other projects have been constructed and the resulting conserved habitat in the project area is shown on Figure 9.

As described in Section 2.6, the project study area is considered a stepping stone corridor or linkage for species such as bird, reptiles, and small to mid-size mammals (e.g., rabbits, bobcat, or coyote). The Proposed Project is designed to maintain areas suitable for wildlife movement through open space designation and meets the criteria provided in the BMO. The Proposed Project is designed to provide open space contiguous with adjacent open space and PAMA. Specifically, the core will be maintained and continue to provide coastal sage scrub habitat for wildlife species, as well as cover and topographical relief including ridgelines and valleys for species. The core includes project proposed preserve and connects with the other preserve areas that are within the core. South

of the preserve site, there is either undeveloped land or land that is owned by the County. With additional mitigation in the form of the 10.23-acre area immediately adjacent to the project open space, more space for wildlife use is included. The condition within the preserve includes both north- and south-facing slopes, a valley that connects to Greenhills Ranch I preserve and a ridgeline within the 10.23-acre area that shows wildlife use by having a system of wildlife trails on the ridge line and along the slopes leading to the ridgeline. The ridgelines within the preserve provide visual continuity for wildlife movement. The varying and diverse composition of the habitat provides low vegetation and open areas as well as dense and tall woody shrubs for protection. There are no roads located within the preserve and there is minimal night-lighting due to few homes within proximity. The proposed open space will allow wildlife to continue to move through the undeveloped habitat similar to the existing conditions. No roads are proposed within the open space preserve and the limited building zone minimizes structures and certain uses within a 100-foot buffer between the open space preserve and development (Figure 7). Because the majority of wildlife species that could utilize this corridor are likely small to mid-size (e.g., birds, rabbits, coyote), the widths of the proposed corridor are wide enough to continue to support these species and generally exceed 1,000 feet except for a 765 foot-long segment that is 580-feet wide. Therefore, implementation of the Greenhills Ranch II Project, combined with the reasonably foreseeable cumulative projects, is not expected to result in impacts to habitat connectivity, wildlife corridors, or core biological resource areas.

6.4 Mitigation Measures and Design Considerations

Impacts to wildlife movement shall be mitigated through MM-BIO-1 and MM-BIO-3 through MM-BIO-11 described in Section 3.4.

6.5 Conclusions

Impact W-1 See Section 3.5.

Impact WM-1 Short-term indirect impacts to wildlife movement shall be mitigated through MM-BIO-3 (biological monitoring) and MM-BIO-4 (temporary construction fencing), which prevent inadvertent disturbance outside of the impact areas, monitoring fencing and erosion control measures, and minimizes impacts to wildlife species; MM-BIO-5 (preparation of a SWPPP and BMPs), which prohibits litter that attract non-native or nuisance wildlife and pets on site; MM-BIO-6 (limitations on construction activities near occupied coastal California gnatcatcher habitat), which prevents indirect impacts to breeding gnatcatchers between February 15 through August 31; and MM-BIO-3 (control fugitive dust), which will minimize impact to surrounding habitat for wildlife species during construction activities Impacts are considered less than significant with incorporation of these mitigation measures.

Long-term indirect impacts to wildlife movement shall be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space), which conserves 19.11 acres of contiguous coastal sage scrub adjacent to existing MSCP preserves and minimizes the effects of habitat fragmentation; MM-BIO-8(permanent fencing and signage), which prevents access into the preserve; MM-BIO-8 (landscaping palettes), which prohibits the planting of invasive plant species; MM-BIO-10 (weed control treatment), which provides control measures for non-native, invasive species; and MM-BIO-11 (fire protection plan), which minimizes fire exposure to the preserve. Impacts are considered less than significant with incorporation of these mitigation measures.

Impact WM-2 Short-term indirect impacts to wildlife movement as a result of noise shall be mitigated through MM-BIO-7 (limitations on construction activities near occupied coastal California gnatcatcher habitat), which prevents indirect impacts to breeding gnatcatchers between February 15 through August 31.

7 LOCAL POLICIES, ORDINANCES, AND ADOPTED PLANS

7.1 Guidelines for the Determination of Significance

The County's *Guidelines for Determining Significance and Report Format and Content Requirements: Biological Resources* (County of San Diego 2010a) are based on the criteria in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) and were used to analyze potential direct and indirect impacts to biological resources. The following guidelines for the determination of significance come directly from the County's guidelines (County of San Diego 2010a).

Guideline 4.5: The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

A. For lands outside of the Multiple Species Conservation Plan (MSCP), the project would impact coastal sage scrub (CSS) vegetation in excess of the County's 5% habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.

B. The project would preclude or prevent the preparation of the subregional Natural Communities Conservation Planning Process (NCCP). For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.

C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).

D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the Natural Communities Conservation Planning Process (NCCP) Guidelines.

E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar regional planning effort.

F. For lands within the Multiple Species Conservation Program (MSCP), the project would not minimize impacts to Biological Resource Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO).

G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.

H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the Biological Mitigation Ordinance (BMO).

I. The project does not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

J. The project would reduce the likelihood of survival and recovery of listed species in the wild.

K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).

L. The project would result in the take of eagles, eagle eggs, or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 Analysis of Project Effects

7.2.1 Project Effects Relevant to Guideline 4.5.A

The Greenhills Ranch II Project is located within the boundary of the approved South County MSCP, and therefore there are no significant impacts under this threshold.

7.2.2 Project Effects Relevant to Guideline 4.5.B

The Greenhills Ranch II Project area is located within the boundary of the MSCP and therefore would not preclude or prevent the preparation of an NCCP.

7.2.3 Project Effects Relevant to Guideline 4.5.C

The Greenhills Ranch II Project does not have any wetlands or sensitive habitats as outlined in the RPO, and therefore this guideline does not apply to the proposed project.

7.2.4 Project Effects Relevant to Guideline 4.5.D

The Greenhills Ranch II Project will mitigate coastal sage scrub impacts in accordance with the Subarea Plan and BMO; therefore, there are no significant impacts per this guideline.

7.2.5 Project Effects Relevant to Guideline 4.5.E

The Greenhills Ranch II Project conforms to the goals and requirements as outlined in all applicable regional planning efforts (County of San Diego 1997, 1998, 2010). Specifically, impacts to vegetation communities, special-status plants, special-status wildlife, and wildlife movement are mitigated per the Subarea Plan and Sections 86.506 and 86.507 of the BMO. Table

6 in Section 3.5 describes additional compliance with the Final MSCP Plan (County 1997). Therefore, there are no significant impacts per this guideline

7.2.6 Project Effects Relevant to Guideline 4.5.F

The Greenhills Ranch II project is located within the boundaries of a Biological Resource Core Area. The Proposed Project is designed to minimize impacts to the Biological Resource Core Area. Specifically, the open space preserve will conserve 8.88 acres of the Diegan coastal sage scrub within the property and will include the contiguous off-site 10.23 acres of Diegan coastal sage scrub and maintain areas suitable for wildlife and wildlife movement through open space contiguous with adjacent open space and PAMA. Therefore, impacts to the Biological Resource Core Area are considered less than significant.

7.2.7 Project Effects Relevant to Guideline 4.5.G

The Greenhills Ranch II Project is not expected to preclude habitat connectivity as discussed in Section 6.2.2; therefore, there are no significant impacts per this guideline.

7.2.8 Project Effects Relevant to Guideline 4.5.H

The project maintains and enhances existing movement corridors and habitat linkages as defined in the BMO and discussed in Sections 6.1 and 6.2 by preserving on-site and off-site mitigation area that are contiguous. However, impacts to 12.05 acres of native habitat will occur as described above. Direct Impacts to the native habitat within the wildlife corridor would be considered significant (**Impact W-1).**

7.2.9 Project Effects Relevant to Guideline 4.5.I

One coastal actus wren (*Campylorhynchus brunneicapillus sandiegensis*), an MSCP narrow endemic species (Attachment D of County of San Diego, 2010), has been detected in the project area, and they are known to occur in the vicinity. However, there are no native cactus patches in the study area and therefore there are no impacts to occupied breeding cactus wren habitat. The cactus wren, since it was observed on the site, potentially forages within the area and on site. Direct impacts to coastal cactus wren foraging habitat would be considered significant (Impact W-1).

7.2.10 Project Effects Relevant to Guideline 4.5.J

One federally and listed species, coastal California gnatcatcher, has been observed within the study area. Impacts to coastal California gnatcatcher are described in Section 3.2.1 and are considered significant (**Impact W-1**).

7.2.11 Project Effects Relevant to Guideline 4.5.K

The project is designed to avoid vegetation clearing between February 15 through August 31. If impacts occur to nesting birds, the impact would be significant (**Impact W-1**). No suitable raptor nesting opportunities are present in the impact area.

7.2.12 Project Effects Relevant to Guideline 4.5.L

No eagles have been observed within or expected to utilize the project area, and therefore no impacts related to this guideline are anticipated.

7.3 Cumulative Impact Analysis

Cumulative impacts are addressed under the MSCP as described in Section 3.3.

7.4 Mitigation Measures and Design Considerations

Project construction will be phased, where appropriate, to avoid vegetation clearing during the breeding season for most birds (i.e., February 15 through August 31). Impacts to federally listed species shall be mitigated through MM-BIO-1 and MM-BIO-2 described in Section 3.4.

7.5 Conclusions

Impact W-1 See Section 3.5.

8 SUMMARY OF PROJECT IMPACTS AND MITIGATION

Habitat Types/Vegetation Communities

Implementation of the proposed project would result in permanent direct impacts to 19.99 acres of vegetation communities, including 12.05 acres of native vegetation. Mitigation includes preservation and management of open space through MM-BIO-1 (preservation of 19.11 acres of habitat in open space). Potential indirect impacts could occur from both the short-term construction-related impacts and long-term build out of the Proposed Project. Mitigation includes MM-BIO-5, MM-BIO 3, and MM-BIO-7 through MM-BIO-11 to mitigate for indirect impacts. Impacts are considered less than significant with incorporation of these mitigation measures.

Special-Status Plant Species

There are significant impacts to San Diego County viguiera, which will be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space), and is considered less than significant with incorporation of this mitigation measure. No direct impacts to San Diego sagewort or ashy spike-moss are expected with implementation of the proposed project.

Special-Status Wildlife Species

There would be significant impacts to suitable habitat for special-status wildlife species including coastal California gnatcatcher. These impacts shall be mitigated through MM-BIO-1 (preservation of 19.11 acres of habitat in open space), which conserves 19.11 acres contiguous coastal sage scrub adjacent to existing MSCP preserves. Impacts to nesting birds will be avoided through MM-BIO-2 (avoidance of nesting season). Potential indirect impacts could occur from both the short-term construction-related impacts and long-term build out of the Proposed Project. Mitigation includes MM-BIO-3 through MM-BIO-11 to mitigate for indirect impacts. Impacts are considered less than significant with incorporation of these mitigation measures.

A summary of the aforementioned significance criteria, references to their locations within this document, and the significance determination is provided in Table 8.

Table 8
Summary of Impacts and Mitigation Measures

Section of Report Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
Guideline 4.1 The project would have a substantial adverse effect, either directly or through habitat modifications, on a candidate, sensitive, or special status species listed in local or regional plans, policies, or regulations, or by California Department of Fish and Game or U.S. Fish and Wildlife Service.						
3.2.1	Impact W-1	**Federally or State Listed species** Coastal California gnatcatcher	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-2 (avoidance of nesting season)	Less than significant	4.1, A
3.2.2.2	Impact W-1	**County Group 1 and SSC species** Suitable habitat & species	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-2 (avoidance of nesting season)	Less than significant	4.1, B
3.2.3	Impact P-1	**Special-status Plant species** San Diego County viguiera	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.1, C
3.2.3	Impact W-1	**Special-status Wildlife species** Suitable habitat	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.1, C
3.2.8	Impact W-2	**Special-status Wildlife species**	Short-term indirect	MM-BIO-3 (biological monitoring) MM-BIO-4 (temporary construction fencing) MM-BIO-5 (preparation of a SWPPP and BMPs) MM-BIO-6 (limitations on construction activities near occupied coastal California gnatcatcher habitat) MM-BIO-3 (control fugitive dust)	Less than significant	4.1, H
3.2.8	Impact W-2	**Special-status Wildlife species**	Long-term indirect	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-7 (permanent fencing and signage) MM-BIO-8 (landscaping palettes) MM-BIO-9 (weed control treatment) MM-BIO-10 (fire protection plan)	Less than significant	4.1, H
3.2.10	Impact W-1	**Special-status Wildlife species** Coastal cactus wren	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-2 (avoidance of nesting season)	Less than significant	4.1.J

Table 8
Summary of Impacts and Mitigation Measures

Section of Report Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
Guideline 4.2: The project would have a substantial adverse effect on riparian habitat or another sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.						
4.2.1	Impact V-1	**Special-status Vegetation Communities**	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.2, A
4.2.4	Impact V-2	**Special-status Vegetation Communities**	Short-term indirect	MM-BIO-5 (preparation of a SWPPP and BMPs) MM-BIO-3 (control fugitive dust)	Less than significant	4.2, D
4.2.4	Impact V-2	**Special-status Vegetation Communities**	Long-term indirect	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-7 (permanent fencing and signage) MM-BIO-8 (landscaping palettes) MM-BIO-9 (weed control treatment) MM-BIO-10 (fire protection plan)	Less than significant	4.2, D
Guideline 4.4: The project would interfere substantially with the movement of a native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.						
6.2.1	Impact WM-1	**Wildlife Corridors**	Short-term indirect	MM-BIO-3 (biological monitoring; control fugitive dust) MM-BIO-4 (temporary construction fencing) MM-BIO-5 (preparation of a SWPPP and BMPs) BIO-6 (limitations on construction activities near occupied coastal California gnatcatcher habitat)	Less than significant	4.4, A
6.2.1	Impact WM-1	**Wildlife Corridors**	Long-term indirect	MM-BIO-1 (preservation of 19.11 acres in open space) MM-BIO-8 (permanent fencing and signage) MM-BIO-8 (landscaping palettes) MM-BIO-10 (weed control treatment) MM-BIO-11 (fire protection plan)	Less than significant	4.4, A
6.2.4	Impact WM-2	**Wildlife Corridors – Noise**	Short-term indirect	BIO-7 (limitations on construction activities near occupied coastal California gnatcatcher habitat)	Less than significant	4.4, D
6.2.5	Impact W-1	**Wildlife Corridors**	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.4, E

Table 8
Summary of Impacts and Mitigation Measures

Section of Report Analysis Is Described	Impact Number	Impacted Resource	Impact Type	Proposed Mitigation	Level of Significance After Mitigation	Guideline Number and Letter
Guideline 4.5 The project would conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.						
7.2.8	Impact W-1	**Wildlife Corridors**	Direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.5, H
7.2.10	Impact W-1	**Listed species**	Long-term direct	MM-BIO-1 (preservation of 19.11 acres in open space)	Less than significant	4.5, J
7.2.11	Impact W-1	**Migratory Bird Treaty Act**	Short-term direct	MM-BIO-2 (avoidance of nesting season) MM-BIO-6 (avoidance of nesting season for California gnatcatcher)	Less than significant	4.5, K

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10 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

This report was prepared by Dudek biologists Anita Hayworth, PhD, Callie Ford, Danielle Mullen, and Paul Lemons. Dudek senior biologist Anita Hayworth, PhD provided review assistance and coordination with the client and County. Dr. Hayworth serves as the County Approved biologist for this report. Graphics and GIS mapping and analyses were provided by Curtis Battle. Devin Brookhart and David Mueller provided formatting.

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SOURCE: ESRI, 2015

FIGURE 1
Regional Map

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Biological Resources Report for the Greenhills Ranch II Project

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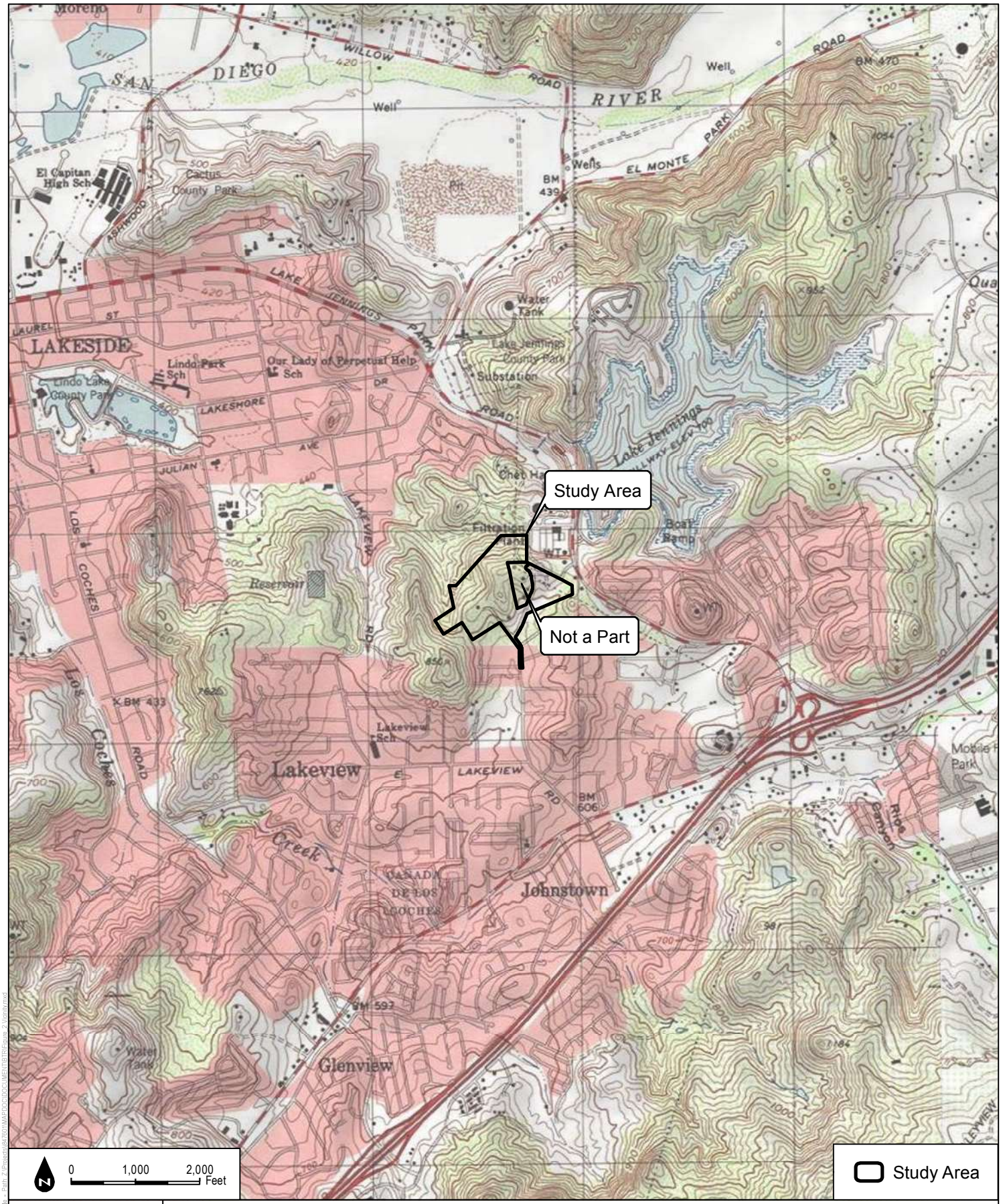

SOURCE: USGS 7.5-Minute Series El Cajon Quadrangle.

FIGURE 2

Vicinity Map

Biological Resources Report for the Greenhills Ranch II Project

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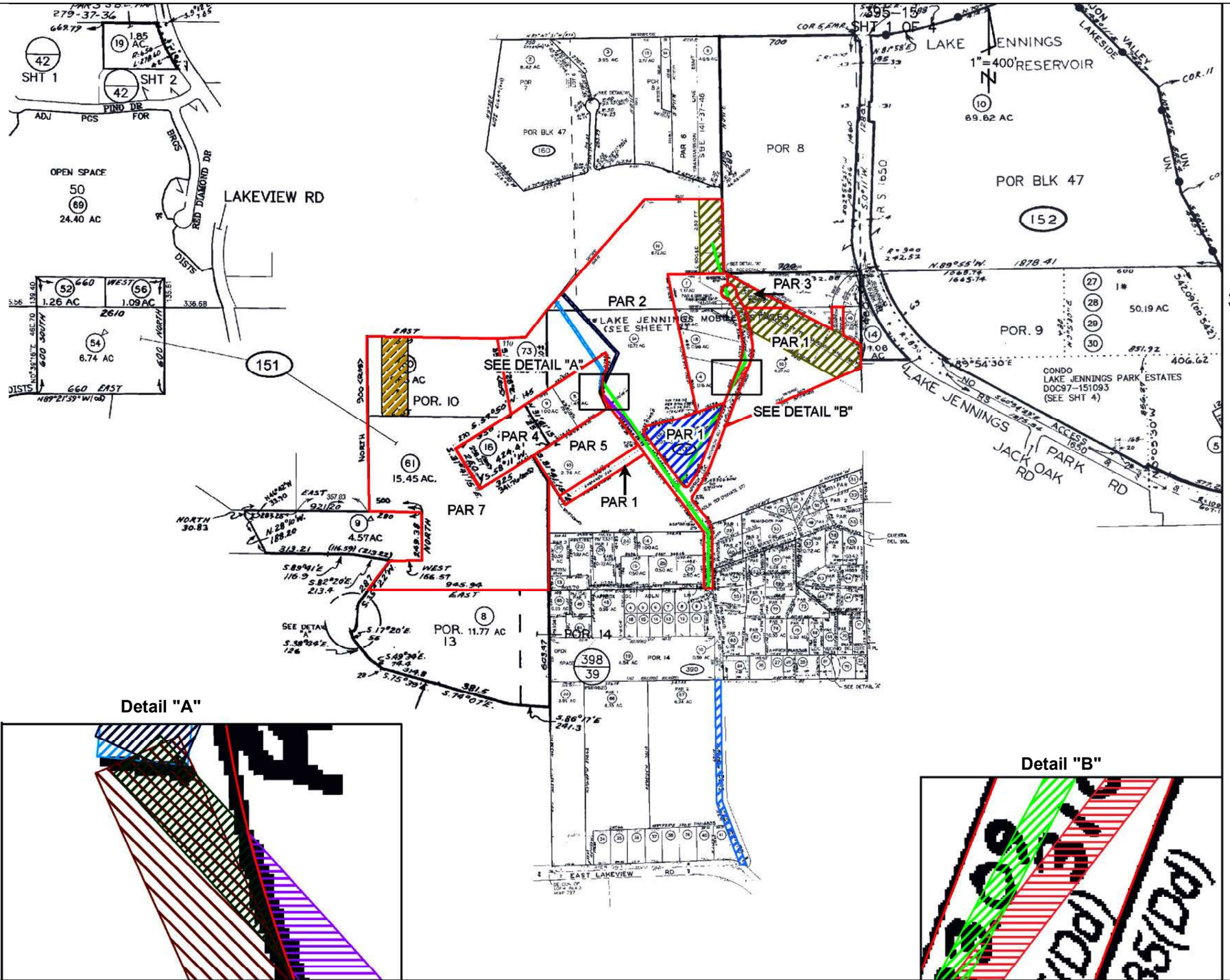

APN

395-151-16, 60, 61, 73, 395-160-15, 398-400-01, 08, 09, 20, 398-400-54, 55

Legend

- PAR 1
- PAR 2
- PAR 3
- PAR 4
- PAR 5
- PAR 6
- PAR 7
- PAR 7A - Unlocatable
- PAR 7B
- Ease for Public Utilities, Ingress & Egress recorded 04/21/1955 # 52744 Bk5614 Pg199 OR - Item 3 & 45
- Ease for Public Utilities, Ingress & Egress recorded 01/24/1956 # 10307 Bk5951 Pg104 OR - Item 5 & 48
- Ease for Public Utilities, Ingress & Egress recorded 01/24/1956 Bk5951 Pg114 OR - Item 6
- Ease for Public Utilities, Ingress & Egress recorded 02/06/1956 # 15970 Bk5965 Pg479 OR - Item 7 & 49
- Ease for Public Utilities, Ingress & Egress recorded 02/06/1956 Bk5965 Pg497 OR - Item 8
- Ease for Public Utilities, Ingress & Egress recorded 03/06/1956 # 30557 Bk6004 Pg104 OR - Item 9
- Ease for Public Utilities, Ingress & Egress recorded 06/07/1956 # 78487 Bk6131 Pg290 OR - Item 11 & 51
- Ease for Public Utilities, Ingress & Egress recorded 09/04/1957 # 135034 Bk6734 Pg276 OR - Item 12
- Ease for Open Space recorded 02/08/1995 # 95-058206 OR - Item 53

This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.

SOURCE: Chicago Title Company, 2016

FIGURE 3

Existing Encumberences

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Resources Report for the Greenhills Ranch II Project

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SOURCE: SANDAG, 2016

FIGURE 4

Regional Context

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Biological Resources Report for the Greenhills Ranch II Project

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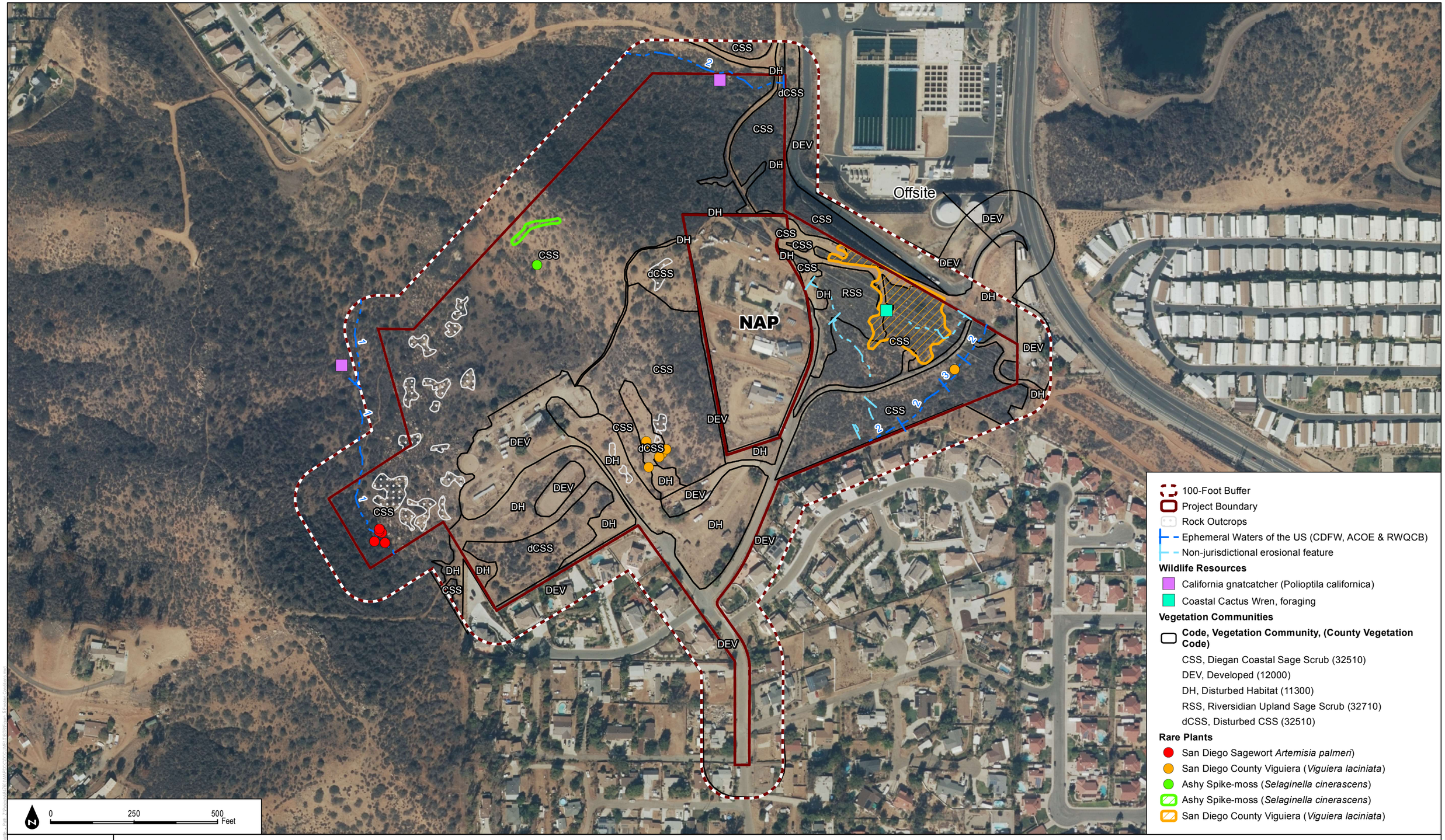

SOURCE: SANDAG, 2015

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FIGURE 5

Existing Conditions

Biological Resources Report for the Greenhills Ranch II Project

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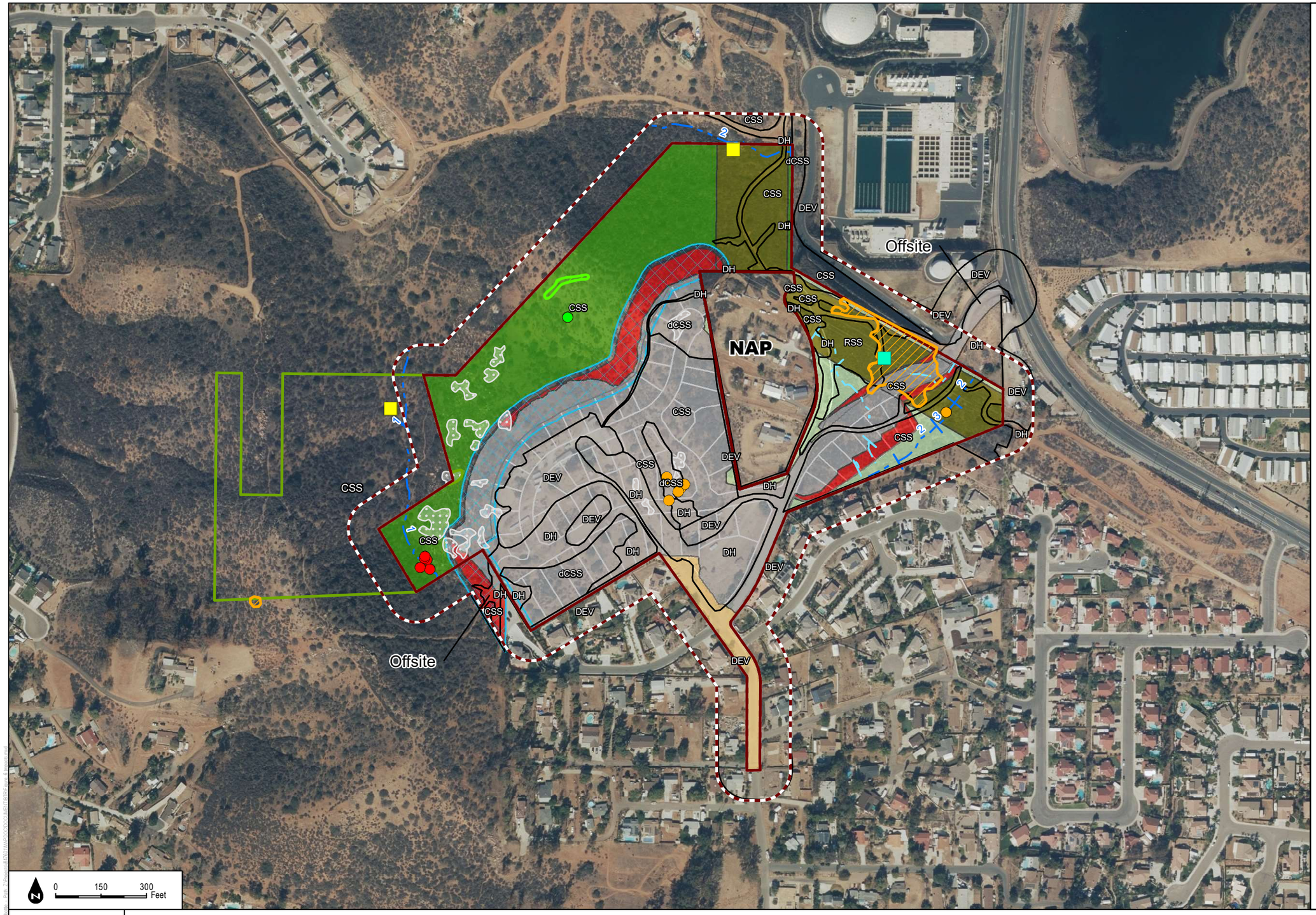

100-Foot Buffer
Project Boundary
Rock Outcrops
Ephemeral Waters of the US (CDFW, ACOE & RWQCB)
Non-jurisdictional erosional feature

Wildlife Resources

California gnatcatcher (Polioptila californica)
Coastal Cactus Wren, foraging

Vegetation Communities

Code, Vegetation Community, (County Vegetation Code)
CSS, Diegan Coastal Sage Scrub (32510)
DEV, Developed (12000)
DH, Disturbed Habitat (11300)
RO, Rock Outcrop
RSS, Riversidian Upland Sage Scrub (32710)
dCSS, Disturbed CSS (32510)

Rare Plants

San Diego Sagewort (*Artemisia palmeri*)
Ashy Spike-moss (*Selaginella cinerascens*)
San Diego County Viguiera (*Viguiera laciniata*)
Ashy Spike-moss (*Selaginella cinerascens*)
San Diego County Viguiera (*Viguiera laciniata*)

Project Impacts

100-Foot Buffer
Limits of Grading
Fuel Mod Zone
Impact Neutral Open Space
Impact Neutral Open Space - SDGE Easement
Preserve Open Space
(N/A)
LBZ
Off-site Mitigation

SOURCE: SANDAG, 2016

FIGURE 6
Impacts

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Biological Resources Report for the Greenhills Ranch II Project

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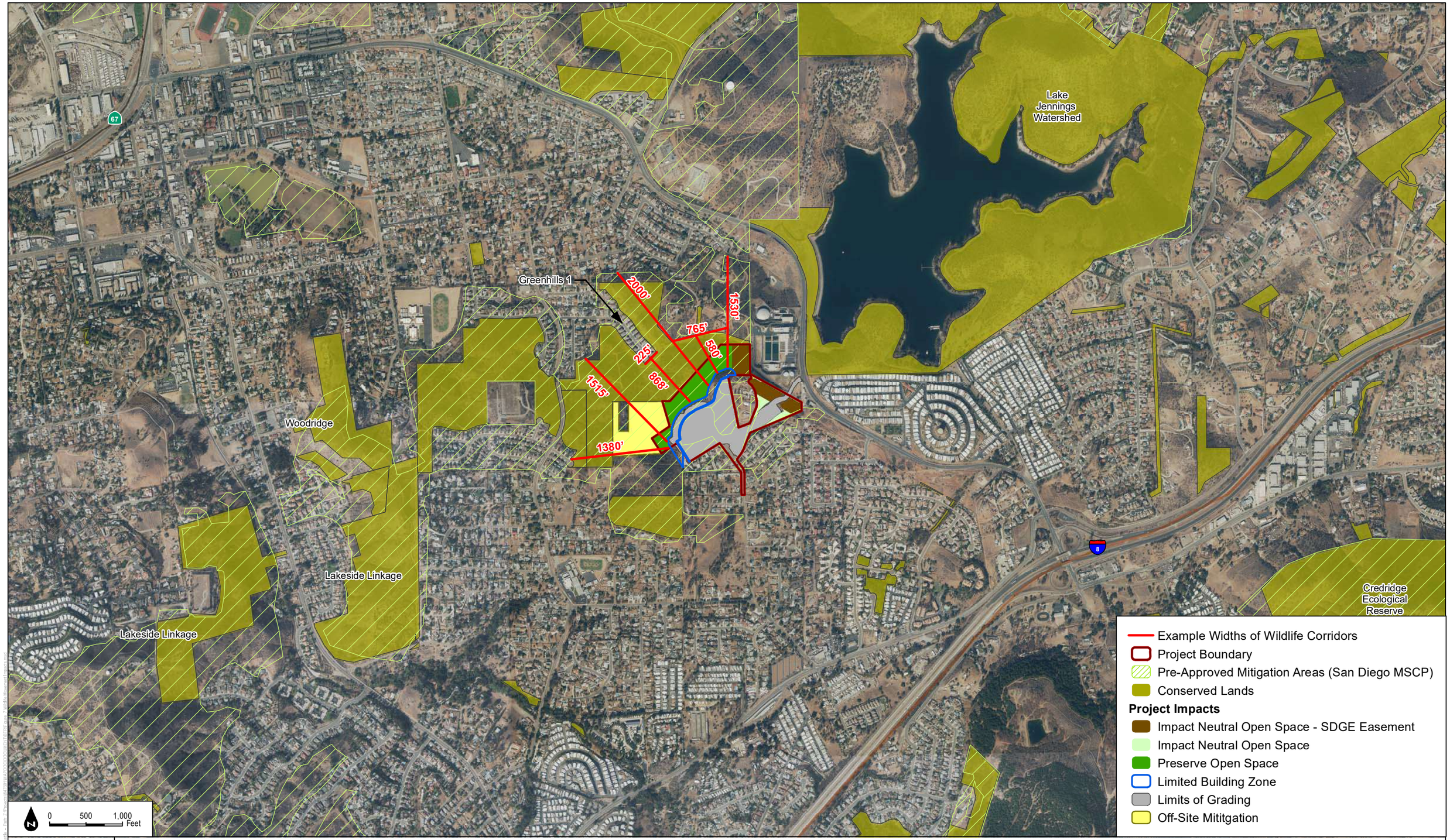

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SOURCE: SANDAG, 2016

FIGURE 7

Wildlife Movement Impacts

Biological Resources Report for the Greenhills Ranch II Project

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SOURCE: SANDAG, 2016

FIGURE 8

Open Space, Fencing, and Signs

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Biological Resources Report for the Greenhills Ranch II Project

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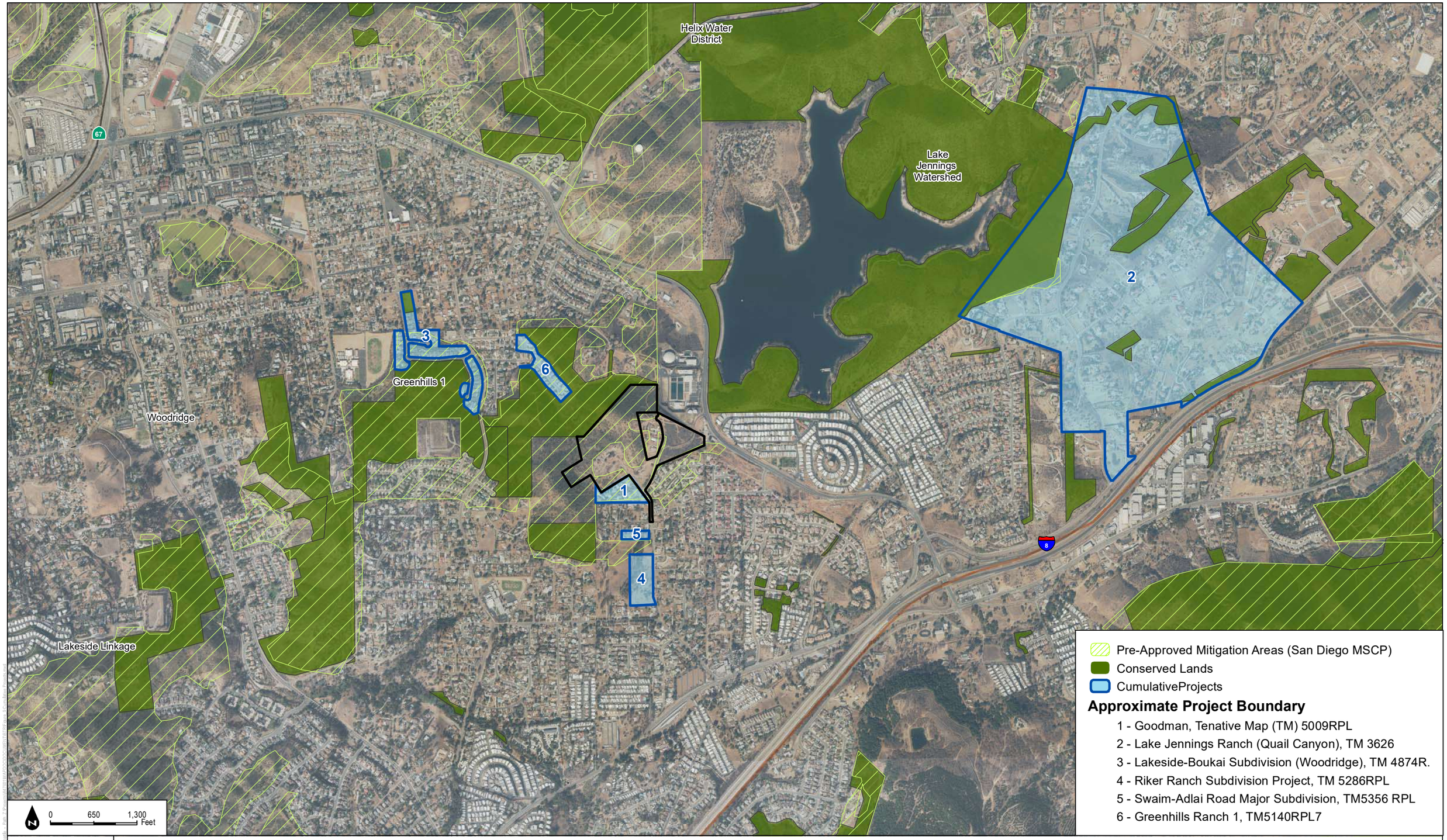

SOURCE: SANDAG, 2016

FIGURE 9

Cumulative Projects

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Biological Resources Report for the Greenhills Ranch II Project

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APPENDIX A

Plant Species Observed within Project Area

APPENDIX A
Plant Species Observed within Project Area

VASCULAR SPECIES

FERNS AND FERN ALLIES

PTERIDACEAE—BRAKE FAMILY

Myriopteris clevelandii—Cleveland's lip fern
Pentagramma triangularis ssp. *triangularis*—goldback fern

SELAGINELLACEAE—SPIKE-MOSS FAMILY

Selaginella cinerascens—ashy spike-moss

GYMNOSPERMS AND GNETOPHYTES

PINACEAE—PINE FAMILY

* *Pinus nigra*—Australian pine

MONOCOTS

AGAVACEAE—AGAVE FAMILY

* *Agave*—agave

ARECACEAE—PALM FAMILY

* *Washingtonia robusta*—Washington fan palm

ASPARAGACEAE—ASPARAGUS FAMILY

* *Asparagus asparagoides*—African asparagus fern

LILIACEAE—LILY FAMILY

Calochortus splendens—splendid mariposa lily
Calochortus weedii var. *weedii*—Weed's mariposa lily

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Bromus madritensis*—compact brome
* *Festuca myuros*—rat-tail fescue
* *Hordeum murinum*—mouse barley
* *Lamarckia aurea*—goldentop grass
Melica imperfecta—smallflower melicgrass
* *Pennisetum setaceum*—crimson fountaingrass
* *Schismus barbatus*—common Mediterranean grass

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea* —black elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

* *Carpobrotus chilensis*—sea fig

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Malosma laurina—laurel sumac

Toxicodendron diversilobum—Pacific poison oak

* *Schinus molle*—Peruvian peppertree

APIACEAE—CARROT FAMILY

Daucus pusillus—American wild carrot

* *Apium graveolens*—wild celery

APOCYNACEAE—DOGBANE FAMILY

* *Nerium oleander*—oleander

ASTERACEAE—SUNFLOWER FAMILY

Acourtia microcephala—sacapellote

Artemisia californica—coastal sagebrush

Artemisia palmeri—San Diego sagewort

Baccharis pilularis—coyotebrush

Baccharis sarothroides—desertbroom

Bahiopsis laciniata—San Diego County Viguiera

Brickellia californica—California brickellbush

* *Carduus pycnocephalus*—Italian plumeless thistle

* *Centaurea melitensis*—Maltese star-thistle

Deinandra fasciculata—clustered tarweed

Encelia farinosa—brittlebush

Erigeron canadensis—Canadian horseweed

Eriophyllum confertiflorum—golden-yarrow

Gutierrezia californica—San Joaquin snakeweed

Hazardia squarrosa—sawtooth goldenbush

Heterotheca grandiflora—telegraphweed

* *Hypochaeris glabra*—smooth cat's ear

* *Lactuca serriola*—prickly lettuce

Lasthenia californica—California goldfields

* *Logfia gallica*—narrowleaf cottonrose
Osmadenia tenella—false rosinweed
Pseudognaphalium californicum—ladies' tobacco
Pseudognaphalium canescens—Wright's cudweed
Rafinesquia californica—California plumeseed
* *Sonchus oleraceus*—common sowthistle
* *Sonchus asper* ssp. *asper*—spiny sowthistle
Stephanomeria virgata—rod wirelettuce
Stylocline gnaphaloides—mountain neststraw

BORAGINACEAE—BORAGE FAMILY
Amsinckia menziesii—Menzies' fiddleneck
Cryptantha intermedia—Clearwater cryptantha
Emmenanthe penduliflora—whisperingbells
Phacelia cicutaria—caterpillar phacelia
Phacelia parryi—Parry's phacelia
Pholistoma auritum—blue fiestaflower

BRASSICACEAE—MUSTARD FAMILY
* *Sisymbrium irio*—London rocket
* *Hirschfeldia incana*—shortpod mustard
* *Raphanus sativus*—cultivated radish

CACTACEAE—CACTUS FAMILY
* *Opuntia ficus-indica*—Barbary fig

CARYOPHYLLACEAE—PINK FAMILY
* *Cerastium glomeratum*—sticky chickweed

CHENOPODIACEAE—GOOSEFOOT FAMILY
* *Salsola tragus*—prickly Russian thistle

CONVOLVULACEAE—MORNING-GLORY FAMILY
Calystegia macrostegia—island false bindweed
Cuscuta californica—chaparral dodder

CUCURBITACEAE—GOURD FAMILY
Marah macrocarpa—Cucamonga manroot

EUPHORBIACEAE—SPURGE FAMILY
Euphorbia polycarpa— smallseed sandmat

Croton setiger—dove weed
* *Euphorbia maculata*—spotted sandmat
* *Euphorbia peplus*—petty spurge

FABACEAE—LEGUME FAMILY

Acmispon americanus var. *americanus*—American bird's-foot trefoil
Acmispon glaber—common deerweed
* *Parkinsonia aculeata*—Jerusalem thorn
Trifolium microcephalum—smallhead clover

GENTIANACEAE—GENTIAN FAMILY

Zeltnera venusta—charming centaury

GERANIACEAE—GERANIUM FAMILY

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

LAMIACEAE—MINT FAMILY

Salvia apiana—white sage
Salvia columbariae—chia
* *Marrubium vulgare*—horehound

MALVACEAE—MALLOW FAMILY

Malacothamnus fasciculatus—Mendocino bushmallow

MYRSINACEAE—MYRSINE FAMILY

* *Lysimachia arvensis*—scarlet pimpernel

MYRTACEAE—MYRTLE FAMILY

* *Eucalyptus camaldulensis*—river redgum
* *Eucalyptus globulus*—Tasmanian bluegum

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis var. crassifolia—California four o'clock

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissoniopsis bistorta—southern suncup
Camissoniopsis hirtella—Santa Cruz Island suncup
Clarkia sp.— clarkia

PHRYMACEAE—LOPSEED FAMILY

Mimulus aurantiacus—orange bush monkeyflower

PLANTAGINACEAE—PLANTAIN FAMILY

Antirrhinum nuttallianum—violet snapdragon
Keckiella cordifolia—heartleaf keckiella

POLEMONIACEAE—PHLOX FAMILY

Eriastrum sapphirinum—sapphire woollystar
Navarretia hamata—hooked pincushionplant

POLYGONACEAE—BUCKWHEAT FAMILY

Chorizanthe procumbens—prostrate spineflower
Eriogonum fasciculatum—Eastern Mojave buckwheat
Pterostegia drymarioides—woodland pterostegia
* *Emex spinosa*—spiny threecornerjack

RANUNCULACEAE—BUTTERCUP FAMILY

Clematis pauciflora—ropevine clematis
Delphinium parryi—San Bernardino larkspur

RHAMNACEAE—BUCKTHORN FAMILY

Rhamnus ilicifolia—hollyleaf redberry

ROSACEAE—ROSE FAMILY

Heteromeles arbutifolia—toyon

RUBIACEAE—MADDER FAMILY

Galium aparine—stickywilly

RUTACEAE—RUE FAMILY

* *Geijera parviflora*—Australian willow

SAXIFRAGACEAE—SAXIFRAGE FAMILY

Jepsonia parryi—Parry's jepsonia

SCROPHULARIACEAE—FIGWORT FAMILY

Scrophularia californica—California figwort

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
Solanum douglasii—greenspot nightshade
* *Nicotiana glauca*—tree tobacco

ZYGOPHYLLACEAE—CALTROP FAMILY

* *Tribulus terrestris*—puncturevine

* signifies introduced (non-native) species

APPENDIX B

Wildlife Species Observed within Project Area

APPENDIX B
Wildlife Species Observed within Project Area

BIRD

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Agelaius phoeniceus—red-winged blackbird: in flight
Sturnella neglecta—western meadowlark

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

Passerina caerulea—blue grosbeak

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Melospiza melodia—song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—spotted towhee

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel: in flight

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch
Haemorhous mexicanus—house finch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Myiarchus cinerascens—ash-throated flycatcher
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; in flight
Buteo jamaicensis—red-tailed hawk: in flight

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS
Calypte anna—Anna's hummingbird
Calypte costae—Costa's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS
Aphelocoma californica—California scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—common raven

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

NEW WORLD VULTURES

CATHARTIDAE—CARDINALS AND ALLIES
Cathartes aura—turkey vulture: in flight

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS
Polioptila californica californica—coastal California gnatcatcher

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

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

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Petrochelidon pyrrhonota—cliff swallow: in flight

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift: in flight

TERNS AND GULLS

LARIDAE—GULLS, TERNS, AND SKIMMERS

Larus occidentalis—western gull: in flight

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas—common yellowthroat

Setophaga coronata—yellow-rumped warbler

WRENS

TROGLODYTIDAE—WRENS

Salpinctes obsoletus—rock wren

Troglodytes aedon—house wren

Campylorhynchus brunneicapillus—cactus wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

INVERTEBRATE

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Atlides halesus—great purple hairstreak
Leptotes marina—marine blue
Strymon melinus—gray hairstreak
Brephidium exile—western pygmy-blue

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Chlosyne californica—California patch
Coenonympha tullia california—common california ringlet
Junonia coenia—common buckeye
Vanessa annabella—west coast lady
Vanessa atalanta—red admiral
Vanessa cardui—painted lady
Danaus plexippus—monarch

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

HESPERIIDAE—SKIPPERS

Erynnis funeralis—funereal duskywing
Pyrgus albescens—white checkered-skipper

PAPILIONIDAE—SWALLOWTAILS

Papilio eurymedon—pale swallowtail
Papilio rutulus—western tiger swallowtail
Papilio zelicaon—anise swallowtail

PIERIDAE—WHITES AND SULFURS

Anthocharis sara sara—Pacific sara orangetip
Colias eurydice—California dogface
Colias harfordii—Harford's sulphur
Phoebis sennae—cloudless sulphur

Pieris rapae—cabbage white
Pontia protodice—checkered white
Pontia sisymbrii—spring white

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES
Canis latrans—coyote

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS
Sylvilagus audubonii—desert cottontail
Sylvilagus bachmani—brush rabbit

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS
Thomomys bottae—Botta's pocket gopher

RATS AND MICE

MURIDAE—RATS AND MICE
Neotoma fuscipes—dusky-footed woodrat

SQUIRRELS

SCIURIDAE—SQUIRRELS
Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS
Sceloporus occidentalis—western fence lizard
Uta stanburiana—common side-blotched lizard

SCINCIDAE—SKINKS
Plestiodon skiltonianus—western skink

SNAKES

COLUBRIDAE—COLUBRID SNAKES

Coluber lateralis—striped racer

* signifies introduced (non-native) species

APPENDIX C

Special-Status Plant Species
Potential to Occur on Site

APPENDIX C
Special-Status Plant Species Potential to Occur on Site

Table C-1
Special-Status Plants Observed or Moderate or High Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Artemisia palmeri	San Diego sagewort	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland/sandy, mesic/ perennial deciduous shrub/ (Feb),May-Sep/ 49-3002	Yes	Eight individuals identified during the 2016 survey within coastal sage scrub.
Selaginella cinerascens	ashy spike-moss	None/ None/ 4.1/ None/ List D	Chaparral, Coastal scrub/ perennial rhizomatous herb/ N.A./ 66-2100	Yes	Observed during the 2016 survey within coastal sage scrub.
Viguiera laciniata (=Bahiopsis laciniata)	San Diego County viguiera	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub/ perennial shrub/ Feb-Jun(Aug)/ 197-2461	Yes (Direct)	Approximately 288 individuals observed during the 2015 and 2016 surveys within coastal sage scrub, Riversidian upland sage scrub and small portions of disturbed habitat.

List based on a search of all plant species found in the CNDDB and CNPS databases for the El Cajon quadrangle and the eight surrounding U.S. Geological Service (USGS) quadrangles conducted in December 2015 and the Comprehensive List of Species provided by San Diego County November 14, 2014.

[1] **Status Designations**

Federal

FE: Federally listed as endangered

FT: Federally listed as threatened

State

SE: State-listed as endangered

ST: State-listed as threatened

SR: State-listed as rare

CRPR: California Rare Plant Rank

1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

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

2A: Plants Presumed Extirpated in California, But More Common Elsewhere

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

3: Plants About Which More Information is Needed - A Review List

4: Plants of Limited Distribution - A Watch List
.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)
CBR: Considered But Rejected by CRPR
County Designations
San Diego MSCP
Covered: MSCP County of San Diego Subarea Plan Covered species
NE: MSCP County of San Diego Subarea Plan Narrow Endemic species for the Metro-Lakeside-Jamul Segment
County of San Diego Sensitive Plant List (2006)
List A: Plants rare, threatened or endangered in California and elsewhere
List B: Plants rare, threatened or endangered in California but common elsewhere
List C: Plants which may be rare, but need more information to determine their true rarity status
List D: Plants of limited distribution and are uncommon, but not presently rare or endangered
[2] **Vicinity**: CNDDB and CNPS database species found within the El Cajon quadrangle.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Acanthomintha ilicifolia	San Diego thorn-mint	FT/ CE/ 1B.1/ NE/ List A	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/Clay, openings/ annual herb/ Apr-Jun/ 33-3150	No	Low potential to occur. Although this species occurs within the vicinity[2], no clay soils occur on site.
Acmispon prostratus	Nuttall's acmispon	None/ None/ 1B.1/ Covered/ List A	Coastal dunes, Coastal scrub(sandy)/ annual herb/ Mar-Jun(Jul)/ 0-33	No	Not expected to occur. The site is outside of the species' known elevation range.
Adolphia californica	California adolphia	None/ None/ 2B.1/ None/ List B	Chaparral, Coastal scrub, Valley and foothill grassland/clay/ perennial deciduous shrub/ Dec-May/ 148-2428	No	Low potential to occur. No clay soils occur on site and this shrub would likely have been observed on site if present.
Ambrosia chenopodiifolia	San Diego bur-sage	None/ None/ 2B.1/ None/ List B	Coastal scrub/ perennial shrub/ Apr-Jun/ 180-509	No	Low potential to occur. This perennial shrub would have been observed during surveys.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Ambrosia monogyra	singlewhorl burrobrush	None/ None/ 2B.2/ None/ None	Chaparral, Sonoran desert scrub/sandy/ perennial shrub/ Aug-Nov/ 33-1640	No	Not expected to occur. No suitable vegetation present and perennial shrub would have been observed during surveys.
Ambrosia pumila	San Diego ambrosia	FE/ None/ 1B.1/ NE/ List A	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/sandy loam or clay, often in disturbed areas, sometimes alkaline/ perennial rhizomatous herb/ Apr-Oct/ 66-1362	No	Low potential to occur. Suitable vegetation and soils present but perennial species not observed during survey. This species occurs within the vicinity[2].
Aphanisma blitoides	aphanisma	None/ None/ 1B.2/ Covered/ List A	Sandy or gravelly. Coastal bluff scrub, Coastal dunes, Coastal scrub/sandy/ annual herb/ Mar-Jun/ 3-1001	No	Low potential to occur. Although sandy loam soils and coastal scrub are present on site, this species typically occurs on coastal bluffs and beach dunes near the ocean (Reiser 2001).
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/ None/ 1B.1/ Covered/ List A	Chaparral(maritime, sandy)/ perennial evergreen shrub/ Dec-Jun/ 0-1198	No	Not expected to occur. No suitable vegetation present and perennial shrub would have been observed during surveys.
Arctostaphylos otayensis	Otay manzanita	None/ None/ 1B.2/ Covered/ List A	Chaparral, Cismontane woodland/metavolcanic/ perennial evergreen shrub/ Jan-Apr/ 902-5577	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Asplenium vespertinum	western spleenwort	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Coastal scrub/rocky/ perennial rhizomatous herb/ Feb-Jun/ 591-3281	No	Low potential to occur. This perennial species would have been observed during the survey. This species occurs within the vicinity[2].

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Astragalus deanei	Dean's milk-vetch	None/ None/ 1B.1/ Covered/ List A	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/ perennial herb/ Feb-May/ 246-2280	No	Low potential to occur. This perennial species would have been observed during the survey. This species occurs within the vicinity[2].
Astragalus oocarpus	San Diego milk-vetch	None/ None/ 1B.2/ None/ List A	Chaparral(openings), Cismontane woodland/ perennial herb/ May-Aug/ 1001-5000	No	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/ None/ List A	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland/alkaline or clay/ perennial herb/ Mar-Oct/ 10-1509	No	Low potential to occur. This species prefers sea-bluff habitat (Reiser 2001) and this perennial herb would likely have been observed if present.
Atriplex pacifica	South Coast saltscale	None/ None/ 1B.2/ None/ List A	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/ annual herb/ Mar-Oct/ 0-459	No	Not expected to occur. The site is outside of the species' known elevation range.
Baccharis vanessae	Encinitas baccharis	FT/ CE/ 1B.1/ NE/ List A	Chaparral(maritime), Cismontane woodland/sandstone/ perennial deciduous shrub/ Aug-Nov/ 197-2362	No	Not expected to occur. No suitable vegetation present and perennial shrub would have been observed during surveys.
Bergerocactus emoryi	golden-spined cereus	None/ None/ 2B.2/ None/ List B	Closed-cone coniferous forest, Chaparral, Coastal scrub/sandy/ perennial stem succulent/ May-Jun/ 10-1296	No	Low potential to occur. This perennial species would have been observed during the survey.
Bloomeria clevelandii	San Diego goldenstar	None/ None/ 1B.1/ Covered/ List A	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/clay/ perennial bulbiferous herb/ Apr-May/ 164-1526	No	Low potential to occur. Although this species occurs within the vicinity[2], no clay soils occur on site.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Brodiaea filifolia	thread-leaved brodiaea	FT/ CE/ 1B.1/ Covered/ List A	Chaparral(openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools/often clay/ perennial bulbiferous herb/ Mar-Jun/ 82-3675	No	Low potential to occur. No clay soils occur on site.
Brodiaea orcuttii	Orcutt's brodiaea	None/ None/ 1B.1/ Covered/ List A	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools/mesic, clay, sometimes serpentinite/ perennial bulbiferous herb/ May-Jul/ 98-5551	No	Not expected to occur. No suitable vegetation or clay soils present. This species occurs within the vicinity[2].
Calamagrostis koelerioides	fire reedgrass	None/ None/ CBR/ Covered/ None	Yellow pine forest, chaparral (many plant communities)/ perennial grass/ Jul-Aug	No	Low potential to occur. No suitable yellow pine forest or chaparral vegetation present.
Calandrinia breweri	Brewer's calandrinia	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub/sandy or loamy, disturbed sites and burns/ annual herb/ Mar-Jun/ 33-4003	No	Low potential to occur, but focused surveys conducting during this species' blooming period were negative. Suitable vegetation and soils present. This species occurs within the vicinity[2].
California macrophylla	round-leaved filaree	None/ None/ 1B.2/ None/ List B	Cismontane woodland, Valley and foothill grassland/clay/ annual herb/ Mar-May/ 49-3937	No	Not expected to occur. No suitable vegetation or clay soils present.
Calochortus dunnii	Dunn's mariposa lily	None/ CR/ 1B.2/ Covered/ List A	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland/gabbroic or metavolcanic, rocky/ perennial bulbiferous herb/ (Feb),Apr-Jun/ 607-6004	No	Not expected to occur. No suitable vegetation or gabbroic or metavolcanic soils present.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Camissoniopsis lewisii	Lewis' evening-primrose	None/ None/ 3/ None/ List C	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland/sandy or clay/ annual herb/ Mar-May(Jun)/ 0-984	No	Low potential to occur. Although sandy loam soils and coastal scrub are present on site, this species grows in very sandy substrates near the beach and typically on beach bluffs (Reiser 2001).
Carex obispoensis	San Luis Obispo sedge	None/ None/ 1B.2/ None/ None	Closed-cone coniferous forest, Chaparral, Coastal prairie, Coastal scrub, Valley and foothill grassland/often serpentinite seeps, sometimes gabbro; often on clay soils/ perennial rhizomatous herb/ Apr-Jun/ 33-2690	No	Low potential to occur. No suitable vegetation or clay or gabbro soils occur on site and this species is known from farther east in San Diego County (CNPS 2016).
Castilleja plagiotoma	Mojave paintbrush	None/ None/ 4.3/ None/ None	Great Basin scrub(alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland/ perennial herb (hemiparasitic)/ Apr-Jun/ 984-8202	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. This species occurs within the vicinity[2].
Caulanthus heterophyllus (=stenocarpus)	San Diego wild cabbage	None/ None/ CBR/ Covered/ None	Chaparral, Coastal scrub/disturbed/ annual herb/ (Feb),Mar-May(Jun)/ <4,593	No	Low potential to occur, but focused surveys conducting during this species' blooming period were negative. Suitable coastal scrub vegetation present and this species has been found in Friant rocky fine sandy loam soils (Reiser 2001), which occur on site.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

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Caulanthus simulans	Payson's jewel-flower	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub/sandy, granitic/ annual herb/ (Feb),Mar-May(Jun)/ 295-7218	No	Low potential to occur, but focused surveys conducting during this species' blooming period were negative. Suitable coastal scrub vegetation and soils present.
Ceanothus cyaneus	Lakeside ceanothus	None/ None/ 1B.2/ NE/ List A	Closed-cone coniferous forest, Chaparral/ perennial evergreen shrub/ Apr-Jun/ 771-2477	No	Not expected to occur. No suitable vegetation present and this perennial shrub would likely have been observed if present. This species occurs within the vicinity[2].
Ceanothus otayensis	Otay Mountain ceanothus	None/ None/ 1B.2/ None/ None	Chaparral(metavolcanic or gabbroic)/ perennial evergreen shrub/ Jan-Apr/ 1969-3609	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ceanothus verrucosus	wart-stemmed ceanothus	None/ None/ 2B.2/ Covered/ List B	Chaparral/ perennial evergreen shrub/ Dec-May/ 3-1247	No	Not expected to occur. No suitable chaparral present and perennial shrub would have been observed during surveys.
Centromadia pungens ssp. *laevis*	smooth tarplant	None/ None/ 1B.1/ None/ List A	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland/alkaline/ annual herb/ Apr-Sep/ 0-2100	No	Low potential to occur. Although this species occurs within the vicinity[2], no suitable alkaline habitat occurs on site and smooth tarplant was not identified during the October site visit when smooth tarplant is typically in bloom.
Chamaebatia australis	southern mountain misery	None/ None/ 4.2/ None/ List D	Chaparral(gabbroic or metavolcanic)/ perennial evergreen shrub/ Nov-May/ 984-3346	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/ CE/ 1B.2/ None/ List A	Coastal dunes, Marshes and swamps(coastal salt)/ annual herb (hemiparasitic)/ May-Oct/ 0-98	No	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/ None/ List D	Chaparral, Coastal scrub, Lower montane coniferous forest/alluvial fan, granitic/ annual herb/ May-Aug/ 984-6234	No	Not expected to occur. The site is outside of the species' known elevation range.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/ None/ 1B.2/ None/ List A	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools/often clay/ annual herb/ Apr-Jul/ 98-5020	No	Low potential to occur. Although this species occurs within the vicinity[2], no clay soils or vernal pools occur on site.
Clarkia delicata	delicate clarkia	None/ None/ 1B.2/ None/ List A	Chaparral, Cismontane woodland/often gabbroic/ annual herb/ Apr-Jun/ 771-3281	No	Not expected to occur. No suitable vegetation present. This species occurs within the vicinity[2].
Clinopodium chandleri	San Miguel savory	None/ None/ 1B.2/ Covered/ List A	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland/Rocky, gabbroic or metavolcanic/ perennial shrub/ Mar-Jul/ 394-3527	No	Low potential to occur. This perennial shrub species would have been observed during surveys.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/ None/ 1B.2/ None/ List A	Chaparral, Cismontane woodland/ perennial evergreen shrub/ Apr-Jun/ 98-2592	No	Not expected to occur. No suitable vegetation present and perennial shrub would have been observed during surveys.
Convolvulus simulans	small-flowered morning-glory	None/ None/ 4.2/ None/ List D	Chaparral(openings), Coastal scrub, Valley and foothill grassland/clay, serpentine seeps/ annual herb/ Mar-Jul/ 98-2297	No	Low potential to occur. Although this species occurs within the vicinity[2], no clay soils occur on site.

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Cordylanthus rigidus ssp. *brevibracteatus*	short-bracted bird's-beak	None/ None/ 4.3/ None/ None	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest/openings, granitic/ annual herb (hemiparasitic)/ Jul-Aug(Oct)/ 2001-8497	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/ None/ 1B.1/ None/ None	Coastal bluff scrub, Chaparral, Coastal scrub/ perennial herb/ Jun-Sep/ 10-377	No	Not expected to occur. The site is outside of the species' known elevation range.
Cylindropuntia californica var. *californica*	snake cholla	None/ None/ 1B.1/ Covered/ List A	Chaparral, Coastal scrub/ perennial stem succulent/ Apr-May/ 98-492	No	Not expected to occur. The site is outside of the species' known elevation range.
Deinandra conjugens	Otay tarplant	FT/ CE/ 1B.1/ Covered/ List A	Coastal scrub, Valley and foothill grassland/clay/ annual herb/ May-Jun/ 82-984	No	Low potential to occur. No clay soils occur on site.
Deinandra floribunda	Tecate tarplant	None/ None/ 1B.2/ None/ List A	Chaparral, Coastal scrub/ annual herb/ Aug-Oct/ 230-4003	No	Low potential to occur. Although there is suitable coastal scrub vegetation present, this species is generally associated with sandy washes (Reiser 2001), which do not occur on site. In addition, this species is typically in bloom in October and so would likely have been observed during the survey if present.

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Deinandra paniculata	paniculate tarplant	None/ None/ 4.2/ None/ List D	Coastal scrub, Valley and foothill grassland, Vernal pools/usually vernally mesic, sometimes sandy/ annual herb/ Apr-Nov/ 82-3084	No	Low potential to occur. Although sandy loam soils occur on site, there is no vernally mesic habitat present. This species is localized in northern cismontane San Diego County (Reiser 2001).
Dichondra occidentalis	western dichondra	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/ perennial rhizomatous herb/ (Jan),Mar-Jul/ 164-1640	No	Low potential to occur. Suitable vegetation present, however this perennial species would likely have been observed during the survey and can be identified outside of it's blooming period (Reiser 2001).
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/ None/ 2B.1/ Covered/ List B	Coastal scrub/ annual herb (hemiparasitic)/ (Mar),Apr-Jul(Sep)/ 33-1148	No	Low potential to occur. Suitable vegetation present, but this species is known from farther south than the project site (CDFW 2015) and is associated with seasonally dry drainages and upland areas adjacent to riparian habitat (Reiser 2001), which do not occur on site.
Dudleya variegata	variegated dudleya	None/ None/ 1B.2/ NE/ List A	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools/clay/ perennial herb/ Apr-Jun/ 10-1903	No	Low potential to occur. This perennial species would have been observed during surveys. This species occurs within the vicinity[2].
Dudleya viscida	sticky dudleya	None/ None/ 1B.2/ Covered/ List A	Chaparral, Cismontane woodland, Coastal bluff scrub, coastal scrub/rocky/ perennial herb/ May-Jun/ 33-1804	No	Low potential to occur. This perennial species would have been observed during surveys.

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Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/ None/ 1B.1/ NE/ List B	Chaparral, Coastal scrub/mesic/ perennial evergreen shrub/ (Jul),Sep-Nov/ 98-1969	No	Low potential to occur. This perennial shrub species this is typically in bloom at the same time as the October site visit would have been observed during surveys. This species occurs within the vicinity[2].
Eriogonum evanidum	vanishing wild buckwheat	None/ None/ 1B.1/ None/ List A	Chaparral, Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland/sandy or gravelly/ annual herb/ Jul-Oct/ 3609-7300	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/ CE/ 1B.1/ Covered/ List A	Coastal scrub, Valley and foothill grassland, Vernal pools/mesic/ annual / perennial herb/ Apr-Jun/ 66-2034	No	Low potential to occur. No vernal pools occur on site.
Euphorbia abramsiana	Abrams' spurge	None/ None/ 2B.2/ None/ None	Mojavean desert scrub, Sonoran desert scrub/sandy / annual herb/ Aug-Nov/ -16-3002	No	Not expected to occur. No suitable vegetation present.
Euphorbia misera	cliff spurge	None/ None/ 2B.2/ None/ List B	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub/rocky/ perennial shrub/ Dec-Aug(Oct)/ 33-1640	No	Low potential to occur. This perennial shrub species would have been observed during surveys.
Ferocactus viridescens	San Diego barrel cactus	None/ None/ 2B.1/ Covered/ List B	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/ perennial stem succulent/ May-Jun/ 10-1476	No	Low potential to occur. This perennial species would have been observed during surveys. This species occurs within the vicinity[2].

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Frankenia palmeri	Palmer's frankenia	None/ None/ 2B.1/ None/ List B	Coastal dunes, Marshes and swamps(coastal salt), Playas/ perennial herb/ May-Jul/ 0-33	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Fraxinus parryi	chaparral ash	None/ None/ 2B.2/ None/ None	Chaparral/ perennial shrub/ Mar-May/ 699-2034	No	Not expected to occur. No suitable chaparral present and perennial shrub would have been observed during surveys.
Fremontodendron mexicanum	Mexican flannelbush	FE/ CR/ 1B.1/ Covered/ List A	Closed-cone coniferous forest, Chaparral, Cismontane woodland/gabbroic, metavolcanic, or serpentinite/ perennial evergreen shrub/ Mar-Jun/ 33-2349	No	Not expected to occur. No suitable vegetation present and perennial shrub would have been observed during surveys.
Galium proliferum	desert bedstraw	None/ None/ 2B.2/ None/ None	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland/rocky, carbonate/ annual herb/ Mar-Jun/ 3904-5348	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Geothallus tuberosus	Campbell's liverwort	None/ None/ 1B.1/ None/ None	Coastal scrub(mesic), Vernal pools/soil/ ephemeral liverwort/ N.A./ 33-1969	No	Low potential to occur. No mesic coastal scrub or vernal pools occur on site.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/ None/ 3.1/ None/ List C	Chaparral(mesic, disturbed areas)/ annual herb/ Apr-Jun/ 1476-2297	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Grindelia hallii	San Diego gumplant	None/ None/ 1B.2/ None/ List A	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/ perennial herb/ May-Oct/ 607-5725	No	Not expected to occur. No suitable vegetation present and this perennial herb would have been observed during surveys.

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Harpagonella palmeri	Palmer's grapplinghook	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub, Valley and foothill grassland/clay/ annual herb/ Mar-May/ 66-3133	No	Low potential to occur. Although this species occurs within the vicinity[2], no clay soils occur on site.
Hesperocyparis forbesii	Tecate cypress	None/ None/ 1B.1/ Covered/ List A	Closed-cone coniferous forest, Chaparral/clay, gabbroic or metavolcanic/ perennial evergreen tree/ N.A./ 262-4921	No	Not expected to occur. No suitable vegetation present and this tree would have been observed during surveys.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/ None/ 1B.1/ None/ None	Chaparral(coastal), Coastal dunes, Coastal scrub/ perennial herb/ Mar-Dec/ 0-4019	No	Not expected to occur. Beach goldenaster occurs closer to the coast than the project site (CDFW 2015; Reiser 2001).
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/ annual herb/ May-Nov/ 197-3609	No	Low potential to occur. Suitable vegetation present. This species occurs within the vicinity[2]. However, this species is typically in bloom in October, and therefore would likely have been observed during the survey if present.
Hordeum intercedens	vernal barley	None/ None/ 3.2/ None/ List C	Coastal dunes, Coastal scrub, Valley and foothill grassland(saline flats and depressions), Vernal pools/ annual herb/ Mar-Jun/ 16-3281	No	Low potential to occur. No vernal pools occur on site.
Horkelia truncata	Ramona horkelia	None/ None/ 1B.3/ None/ List A	Chaparral, Cismontane woodland/clay, gabbroic/ perennial herb/ May-Jun/ 1312-4265	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. This species occurs within the vicinity[2].

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Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/ None/ 1B.2/ None/ List A	Chaparral, Coastal scrub(sandy, often in disturbed areas)/ perennial shrub/ Apr-Nov/ 33-443	No	Not expected to occur. The site is outside of the species' known elevation range. This species occurs within the vicinity[2].
Iva hayesiana	San Diego marsh-elder	None/ None/ 2B.2/ None/ List B	Marshes and swamps, Playas/ perennial herb/ Apr-Oct/ 33-1640	No	Not expected to occur. No suitable vegetation present and this perennial herb would have been observed during surveys.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/ None/ 4.2/ None/ List D	Coastal dunes(mesic), Meadows and seeps(alkaline seeps), Marshes and swamps(coastal salt)/ perennial rhizomatous herb/ (Mar),May-Jun/ 10-2953	No	Not expected to occur. No suitable vegetation present and this perennial herb would have been observed during the survey if present. This species occurs within the vicinity[2].
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/ None/ 1B.1/ None/ List A	Marshes and swamps(coastal salt), Playas, Vernal pools/ annual herb/ Feb-Jun/ 3-4003	No	Not expected to occur. No suitable vegetation present.
Lathyrus splendens	pride-of-California	None/ None/ 4.3/ None/ List D	Chaparral/ perennial herb/ Mar-Jun/ 656-5003	No	Not expected to occur. No suitable chaparral present and this perennial herb would have been observed during surveys.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/ None/ 1B.2/ NE/ List A	Closed-cone coniferous forest, Chaparral, Cismontane woodland/ perennial shrub/ Apr-Jul/ 1706-4495	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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Lepechinia ganderi	Gander's pitcher sage	None/ None/ 1B.3/ Covered/ List A	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland/Gabbroic or metavolcanic/ perennial shrub/ Jun-Jul/ 1001-3297	No	Not expected to occur. The site is outside of the species' known elevation range.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/ None/ 4.3/ None/ List A	Chaparral, Coastal scrub/ annual herb/ Jan-Jul/ 3-2904	No	Low potential to occur, but focused surveys conducting during this species' blooming period were negative. Suitable vegetation present.
Lycium californicum	California box-thorn	None/ None/ 4.2/ None/ List D	Coastal bluff scrub, Coastal scrub/ perennial shrub/ (Dec),Mar-Aug/ 16-492	No	Not expected to occur. The site is outside of the species' known elevation range.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/ None/ 4.2/ None/ List D	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools/clay/ annual herb/ Mar-May/ 49-3510	No	Low potential to occur. No clay soils or vernal pools occur on site.
Mimulus clevelandii	Cleveland's bush monkeyflower	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Lower montane coniferous forest/Gabbroic, often in disturbed areas, openings, rocky/ perennial rhizomatous herb/ Apr-Jul/ 1476-6562	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Mimulus diffusus	Palomar monkeyflower	None/ None/ 4.3/ None/ List D	Chaparral, Lower montane coniferous forest/sandy or gravelly/ annual herb/ Apr-Jun/ 4003-6004	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/ None/ 1B.2/ Covered/ List A	Chaparral, Cismontane woodland/ perennial rhizomatous herb/ Jun-Aug/ 984-5167	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. This species occurs within the vicinity[2].
Monardella viminea	willowy monardella	FE/ CE/ 1B.1/ NE/ List A	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland/alluvial ephemeral washes/ perennial herb/ Jun-Aug/ 164-738	No	Not expected to occur. No alluvial washes occur on site and this perennial herb would likely have been observed on site if present.
Myosurus minimus ssp. *apus*	little mousetail	None/ None/ 3.1/ Covered/ List C	Valley and foothill grassland, Vernal pools(alkaline)/ annual herb/ Mar-Jun/ 66-2100	No	Not expected to occur. No suitable vegetation present.
Nama stenocarpa	mud nama	None/ None/ 2B.2/ None/ List B	Marshes and swamps (lake margins, riverbanks)/ annual / perennial herb/ Jan-Jul/ 16-1640	No	Not expected to occur. No suitable vegetation present.
Navarretia fossalis	spreading navarretia	FT/ None/ 1B.1/ Covered/ List A	Chenopod scrub, Marshes and swamps(assorted shallow freshwater), Playas, Vernal pools/ annual herb/ Apr-Jun/ 98-2149	No	Not expected to occur. No suitable vegetation present.
Navarretia prostrata	prostrate vernal pool navarretia	None/ None/ 1B.1/ None/ List A	Coastal scrub, Meadows and seeps, Valley and foothill grassland(alkaline), Vernal pools/Mesic/ annual herb/ Apr-Jul/ 10-3970	No	Not expected to occur. This species is restricted to vernal pools, which do not occur on site (Reiser 2001).
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/ None/ 1B.2/ None/ List A	Coastal dunes/ annual herb/ Apr-Sep/ 0-328	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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Nolina interrata	Dehesa nolina	None/ CE/ 1B.1/ Covered/ List A	Chaparral(gabbroic, metavolcanic, or serpentinite)/ perennial herb/ Jun-Jul/ 607-2805	No	Not expected to occur. No suitable vegetation present and this perennial herb would have been observed during surveys.
Ophioglossum californicum	California adder's-tongue	None/ None/ 4.2/ None/ List D	Chaparral, Valley and foothill grassland, Vernal pools(margins)/mesic/ perennial rhizomatous herb/ (Dec),Jan-Jun/ 197-1722	No	Not expected to occur. No suitable vegetation present.
Packera ganderi	Gander's ragwort	None/ CR/ 1B.2/ Covered/ List A	Chaparral(burns, gabbroic outcrops)/ perennial herb/ Apr-Jun/ 1312-3937	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/ annual herb/ Mar-Jul/ 262-6070	No	Low potential to occur. Suitable vegetation present, but focused surveys conducting during this species' blooming period were negative. This species occurs within the vicinity[2].
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	None/ None/ 4.3/ None/ None	Chaparral/Gabbroic, granitic, clay/ evergreen shrub/ May-Aug/ 0-5577	No	Not expected to occur. No suitable vegetation present and this evergreen shrub would have been observed during surveys.
Piperia cooperi	chaparral rein orchid	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Valley and foothill grassland/ perennial herb/ Mar-Jun/ 49-5200	No	Not expected to occur. No suitable vegetation present. This species occurs within the vicinity[2].
Pogogyne abramsii	San Diego mesa mint	FE/ CE/ 1B.1/ None/ List A	Vernal pools/ annual herb/ Mar-Jul/ 295-656	No	Not expected to occur. No vernal pools present.

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Pogogyne nudiuscula	Otay Mesa mint	FE/ CE/ 1B.1/ Covered/ List A	Vernal pools/ annual herb/ May-Jul/ 295-820	No	Not expected to occur. No vernal pools present.
Polygala cornuta var. *fishiae*	Fish's milkwort	None/ None/ 4.3/ None/ List D	Chaparral, Cismontane woodland, Riparian woodland/ perennial deciduous shrub/ May-Aug/ 328-3281	No	Low potential to occur. This perennial shrub species would have been observed during surveys.
Quercus cedrosensis	Cedros Island oak	None/ None/ 2B.2/ None/ List B	Closed-cone coniferous forest, Chaparral, Coastal scrub/ perennial evergreen tree/ Apr-May/ 837-3150	No	Low potential to occur. This perennial tree species would have been observed during surveys.
Quercus dumosa	Nuttall's scrub oak	None/ None/ 1B.1/ None/ List A	Closed-cone coniferous forest, Chaparral, Coastal scrub/sandy, clay loam/ perennial evergreen shrub/ Feb-Apr(Aug)/ 49-1312	No	Low potential to occur. This perennial shrub species would have been observed during surveys. This species occurs within the vicinity[2].
Quercus engelmannii	Engelmann oak	None/ None/ 4.2/ None/ List D	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/ perennial deciduous tree/ Mar-Jun/ 164-4265	No	Low potential to occur. This perennial tree species would have been observed during surveys. This species occurs within the vicinity[2].
Ribes canthariforme	Moreno currant	None/ None/ 1B.3/ None/ List A	Chaparral, Riparian scrub/ perennial deciduous shrub/ Feb-Apr/ 1115-3937	No	Not expected to occur. The site is outside of the species' known elevation range.
Romneya coulteri	Coulter's matilija poppy	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub/Often in burns/ perennial rhizomatous herb/ Mar-Jul/ 66-3937	No	Low potential to occur. Suitable vegetation present, however perennial species would have been observed during the survey.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Salvia munzii	Munz's sage	None/ None/ 2B.2/ None/ List B	Chaparral, Coastal scrub/ perennial evergreen shrub/ Feb-Apr/ 377-3494	No	Low potential to occur. This perennial shrub species would have been observed during surveys.
Senecio aphanactis	chaparral ragwort	None/ None/ 2B.2/ None/ List B	Chaparral, Cismontane woodland, Coastal scrub/sometimes alkaline/ annual herb/ Jan-Apr/ 49-2625	No	Low potential to occur. Suitable vegetation present, but soils may not be suitable since there are no alkaline soils on site and this species has historically been associated with gravelly clay loam (Reiser 2001), which also does not occur on site. The nearest CNDDB record is over 8 miles from the site (CDFW 2015).
Sibaropsis hammittii	Hammitt's clay-cress	None/ None/ 1B.2/ None/ List A	Chaparral(openings), Valley and foothill grassland/clay/ annual herb/ Mar-Apr/ 2362-3494	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Solanum xanti	chaparral nightshade	None/ None/ CBR/ Covered/ None	Yellow pine forest, Red fir forest, Lodgepole forest, Northern oak woodland, Southern oak woodland, Foothill Woodland, Chaparral/ perennial herb or shrub/ Feb-Jul	No	Not expected to occur. No suitable vegetation present.
Stemodia durantifolia	purple stemodia	None/ None/ 2B.1/ None/ List B	Sonoran desert scrub(often mesic, sandy)/ perennial herb/ Jan-Dec/ 591-984	No	Not expected to occur. No suitable desert scrub vegetation present.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Stipa diegoensis	San Diego County needle grass	None/ None/ 4.2/ None/ List D	Chaparral, Coastal scrub/rocky, often mesic/ perennial herb/ Feb-Jun/ 33-2625	No	Low potential to occur. This perennial species would have been observed during the survey. This species occurs within the vicinity[2].
Streptanthus bernardinus	Laguna Mountains jewel-flower	None/ None/ 4.3/ None/ List D	Chaparral, Lower montane coniferous forest/ perennial herb/ May-Aug/ 2198-8202	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Stylocline citroleum	oil neststraw	None/ None/ 1B.1/ None/ List A	Chenopod scrub, Coastal scrub, Valley and foothill grassland/clay/ annual herb/ Mar-Apr/ 164-1312	No	Low potential to occur. No clay soils occur on site.
Suaeda esteroa	estuary seablite	None/ None/ 1B.2/ None/ List A	Marshes and swamps(coastal salt)/ perennial herb/ May-Oct(Jan)/ 0-16	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Tetracoccus dioicus	Parry's tetracoccus	None/ None/ 1B.2/ Covered/ List A	Chaparral, Coastal scrub/ perennial deciduous shrub/ Apr-May/ 541-3281	No	Low potential to occur. This perennial shrub species would have been observed during surveys. This species occurs within the vicinity[2].
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./ 951-2165	No	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Triquetrella californica	coastal triquetrella	None/ None/ 1B.2/ None/ None	Coastal bluff scrub, Coastal scrub/soil/ moss/ N.A./ 33-328	No	Not expected to occur. The site is outside of the species' known elevation range.

Table C-2
Special-Status Plants Not Expected or Low Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP County Subarea Plan/County of San Diego)	Primary Habitat Associations/Life Form/Blooming Period/Elevation Range (feet)	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Xanthisma junceum	rush-like bristleweed	None/ None/ 4.3/ None/ List D	Chaparral, Coastal scrub/ perennial herb/ Jun-Jan/ 787-3281	No	Low potential to occur. Suitable vegetation present, however this perennial species would have been observed during the survey. This species occurs within the vicinity[2].

List based on a search of all plant species found in the CNDDB and CNPS databases for the El Cajon quadrangle and the eight surrounding U.S. Geological Service (USGS) quadrangles conducted in December 2015 and the Comprehensive List of Species provided by San Diego County November 14, 2014.

[1] **Status Designations**

Federal

FE: Federally listed as endangered

FT: Federally listed as threatened

State

SE: State-listed as endangered

ST: State-listed as threatened

SR: State-listed as rare

CRPR: California Rare Plant Rank

1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere

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

2A: Plants Presumed Extirpated in California, But More Common Elsewhere

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

3: Plants About Which More Information is Needed - A Review List

4: Plants of Limited Distribution - A Watch List

- .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)

CBR: Considered But Rejected by CRPR

County Designations

San Diego MSCP

Covered: MSCP County of San Diego Subarea Plan Covered species

NE: MSCP County of San Diego Subarea Plan Narrow Endemic species for the Metro-Lakeside-Jamul Segment

County of San Diego Sensitive Plant List (2006)
List A: Plants rare, threatened or endangered in California and elsewhere
List B: Plants rare, threatened or endangered in California but common elsewhere
List C: Plants which may be rare, but need more information to determine their true rarity status
List D: Plants of limited distribution and are uncommon, but not presently rare or endangered

2 **Vicinity**: CNDDB and CNPS database species found within the El Cajon quadrangle.

APPENDIX D

Special-Status Wildlife Species
Potential to Occur on Site

APPENDIX D
Special-Status Wildlife Species with Potential to Occur On-site

Table D-1
Special-Status Wildlife Species Observed or Moderate or High Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Reptiles					
coast patch-nosed snake	*Salvadora hexalepis virgultea*	None/ SSC/ None/ Group 2/ None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	No	Moderate potential to occur. Small mammal burrows observed onsite.
orangethroat whiptail	*Aspidoscelis hyperythra*	None/ SSC/ Covered/ Group 2/ None	Low-elevation coastal scrub, chaparral, and valley-foothill hardwood	No	High potential to occur. CNDDB locations occur on site. This species is found within the vicinity[2].
Coronado Island skink	*Plestiodon skiltonianus interparietalis*	None/ SSC/ None/ Group 2/ None	Woodlands, grasslands, pine forests, chaparral; rocky areas near water	No	Moderate potential to occur. Limited suitable vegetation present however CNDDB locations occur adjacent to the site. This species is found within the vicinity[2].
silvery legless lizard	*Anniella pulchra pulchra*	None/ SSC/ None/ Group 2/ None	Stabilized dunes, beaches, dry washes, chaparral, scrubs, pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	No	High potential to occur. This species is found within the vicinity[2].
Blainville's horned lizard	*Phrynosoma blainvillii*	None/ SSC/ Covered/ Group 2/ None	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	No	High potential to occur. Suitable soils and vegetation present. This species is found within the vicinity[2].

Table D-1
Special-Status Wildlife Species Observed or Moderate or High Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
red diamondback rattlesnake	*Crotalus ruber*	None/ SSC/ None/ Group 2/ None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	No	High potential to occur. Suitable vegetation present. This species is found within the vicinity[2].
San Diegan tiger whiptail	*Aspidoscelis tigris stejnegeri*	None/ None/ None/ Group 2/ None	Open areas in semiarid grasslands, scrublands, and woodlands	No	High potential to occur. Suitable vegetation present. This species is found within the vicinity[2].
Birds					
coastal California gnatcatcher	*Polioptila californica californica*	FT/ SSC/ Covered/ Group 1/ None	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 ft. in elevation	Yes (Direct)	Observed on site during 2015 survey. Focused surveys confirmed a pair present in 2016. This species is found within the vicinity[2].
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None/ WL/ Covered/ Group 1/ None	Nests and forages open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	No	High potential to occur. This species is found within the vicinity[2].
Bell's sparrow	*Artemisiospiza belli belli*	BCC/ WL/ None/ Group 1/ None	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	No	Moderate potential to occur. Suitable habitat present.

Table D-1
Special-Status Wildlife Species Observed or Moderate or High Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis* (San Diego & Orange Counties only)	BCC/ SSC/ Covered/ Group 1/ None	Southern cactus scrub patches	Yes; foraging but not nesting (direct)	Observed foraging onsite during surveys in 2016. Low potential to nest due to lack of cactus species that are suitable for nesting. This species is also known to nest within the vicinity[2]. Areas were searched carefully and no nests were observed.
turkey vulture	*Cathartes aura*	None/ None/ None/ Group 1/ None	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting, and resting throughout most of California during breeding season.	No	Low potential to roost or nest on site. Moderate potential to forage over the site. Was observed flying over the site but not foraging on the site
			Mammals		
long-eared myotis	*Myotis evotis*	None/ None/ None/ Group 2/ WBWG:M	Nearly all brush, woodland, and forest habitats from sea level to 9,000 ft, but prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; caves are used as night roosts	No	Low potential to roost, moderate potential to forage. Limited roosting habitat present.

Table D-1
Special-Status Wildlife Species Observed or Moderate or High Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
pallid bat	*Antrozous pallidus*	None/ SSC/ None/ Group 2/ WBWG:H	Grasslands, shrublands, woodlands, forests; most common in open dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	No	Low potential to roost, moderate potential to forage. Limited roosting habitat present. This species is found within the vicinity[2].
Western Mastiff Bat	*Eumops perotic californicus*	None/SSC/None/Group 2/ WBWG:M	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland	No	Low potential to roost; moderate potential to forage.
western small-footed myotis	*Myotis ciliolabrum*	None/ None/ None/ Group 2/ WBWG:M	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	No	Not expected to roost, moderate potential to forage. No roosting habitat present.
Yuma myotis	*Myotis yumanensis*	None/ None/ None/ Group 2/ WBWG:LM	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	No	Not expected to roost, moderate potential to forage. Limited roosting habitat present.
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	None/ SSC/ None/ Group 2/ None	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed conifer habitats; disturbance specialist; 0 to 3,000 ft.	No	High potential to occur. Suitable habitat is present. This species is found within the vicinity[2].
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	None/ SSC/ None/ Group 2/ None	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland	No	High potential to occur. Suitable habitat is present. This species is found within the vicinity[2].

Table D-1
Special-Status Wildlife Species Observed or Moderate or High Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	None/ SSC/ None/ Group 2/ None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	No	High potential to occur. Suitable vegetation present. This species is found within the vicinity[2].
southern grasshopper mouse	*Onychomys torridus ramona*	None/ SSC/ None/ Group 2/ None	Grassland and sparse coastal scrub	No	Moderate potential to occur. Suitable vegetation present.
mule deer	*Odocoileus hemionus*	None/ None/ Covered/ Group 2/ None	Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed area.	No	Moderate potential to occur. Suitable habitat is present.

List based on a search of all wildlife species found in the CNDDB database for the El Cajon quadrangle and the eight surrounding U.S. Geological Service (USGS) quadrangles conducted in December 2015 and the Comprehensive List of Species provided by San Diego County November 14, 2014.

[1] **Status Designations:**
Federal
BCC: Fish and Wildlife Service: Birds of Conservation Concern
FC: Candidate for federal listing as threatened or endangered
FE: Federally-listed Endangered
FT: Federally-listed as Threatened
FSS: United States Forest Service Sensitive
BLMS: Bureau of Land Management Sensitive Species
State Designations:
SSC: California Special Concern Species
FP: California Department of Fish and Game Fully Protected Species
WL: California Department of Fish and Game Watch List Species
SE: State-listed as Endangered
ST: State-listed as Threatened
County Designations:
San Diego MSCP
Covered: MSCP County of San Diego Subarea Plan Covered species

County of San Diego Sensitive Wildlife List
Group 1: Animals of high sensitivity (listed or specific natural history requirements)
Group 2: Animals declining, but not in immediate threat of extinction or extirpation
Other Designations:
WBWG:H Western Bat Working Group: High Priority
WBWG:LM Western Bat Working Group: Low-Medium Priority
WBWG:M Western Bat Working Group: Medium Priority
WBWG:MH Western Bat Working Group: Medium-High Priority

[2] **Vicinity:** CNDDB database species found within the El Cajon quadrangle.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
			Amphibians		
western spadefoot	*Spea hammondii*	None/ SSC/ None/ Group 2/ None	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	No	Not expected to occur. No wetlands present.
arroyo toad	*Anaxyrus californicus*	FE/ SSC/ Covered/ Group 1/ None	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding(typically 3rd order); adjacent stream terraces and uplands for foraging and wintering	No	Not expected to occur. No suitable habitat present.
			Reptiles		
western pond turtle	*Emys marmorata*	None/ SSC/ Covered/ Group 1/ None	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
rosy boa	*Charina trivirgata*	None/ None/ None/ Group 2/ None	Desert and chaparral habitats with rocky soils in coastal canyons and hillsides, desert canyons, washes and mountains	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
green turtle	*Chelonia mydas*	FT/ None/ None/ None/ None	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass and seaweed beds	No	Not expected to occur. No suitable habitat present.
San Diego banded gecko	*Coleonyx variegatus abbotti*	None/ None/ None/ Group 1/ None	Rocky areas within coastal scrub and chaparral	No	Low potential to occur. Limited suitable habitat present.
San Diego ringneck snake	*Diadophis punctatus similis*	None/ None/ None/ Group 2/ None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed conifer forest, and woodland habitats	No	Not expected to occur. No suitable vegetation present.
two-striped garter snake	*Thamnophis hammondii*	None/ SSC/ None/ Group 1/ None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
Birds					
burrowing owl	*Athene cunicularia* (burrow sites & some wintering sites)	BCC/ SSC/ Covered/ Group 1/ None	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows.	No	Low potential to occur. Limited suitable burrow and foraging habitat present.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
California black rail	*Laterallus jamaicensis coturniculus*	BCC/ ST, FP/ None/ Group 2/ None	Tidal marshes, shallow freshwater margins, wet meadows and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra foothill populations	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
ferruginous hawk	*Buteo regalis* (wintering)	BCC/ WL/ Covered/ Group 1/ None	Winters and forages in open, dry country, grasslands, open fields, agriculture	No	Not expected to occur. No suitable vegetation present.
grasshopper sparrow	*Ammodramus savannarum* (nesting)	None/ SSC/ None/ Group 1/ None	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	No	Low potential to occur. No suitable vegetation present. This species is found within the vicinity[2].
loggerhead shrike	*Lanius ludovicianus* (nesting)	BCC/ SSC/ None/ Group 1/ None	Nests and forages in open habitats with scattered shrubs, trees, or other perches	No	Low potential to nest. No suitable habitat present.
northern harrier	*Circus cyaneus* (nesting)	None/ SSC/ Covered/ Group 1/ None	Nests in open wetlands including marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes, but also in drier habitats such as grassland and grain fields	No	Not expected to occur. No suitable vegetation present.
Swainson's hawk	*Buteo swainsoni* (nesting)	BCC/ ST/ Covered/ Group 1/ None	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	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
tricolored blackbird	*Agelaius tricolor* (nesting colony)	BCC/ SSC/ Covered/ Group 1/ None	Nests near fresh water, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
yellow warbler	*Setophaga petechia* (nesting)	BCC/ SSC/ None/ Group 2/ None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine and mixed conifer habitats	No	Not expected to occur. No suitable vegetation present.
bald eagle	*Haliaeetus leucocephalus* (nesting & wintering)	FDL, BCC/ SE, FP/ Covered/ Group 1/ None	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	No	Not expected to occur. No suitable vegetation present.
Cooper's hawk	*Accipiter cooperii* (nesting)	None/ WL/ Covered/ Group 1/ None	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2]. The species was observed flying over the site but was not foraging onsite because it was flying at a high elevation.
least Bell's vireo	*Vireo bellii pusillus* (nesting)	FE/ SE/ Covered/ Group 1/ None	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	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
southwestern willow flycatcher	*Empidonax traillii extimus* (nesting)	FE/ SE/ Covered/ Group 1/ None	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	No	Not expected to occur. No suitable vegetation present.
white-tailed kite	*Elanus leucurus* (nesting)	None/ FP/ None/ Group 1/ None	Nests in woodland, riparian, and individual trees near open lands	No	Not expected to occur. No suitable vegetation present.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
yellow-breasted chat	*Icteria virens* (nesting)	None/ SSC/ None/ Group 1/ None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
golden eagle	*Aquila chrysaetos* (nesting & wintering)	BCC/ FP, WL/ Covered/ Group 1/ None	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	No	Not expected to occur. No suitable vegetation present.
prairie falcon	*Falco mexicanus* (nesting)	BCC/ WL/ None/ Group 1/ None	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	No	Not expected to occur. No suitable nesting habitat present.
sharp-shinned hawk	*Accipiter striatus* (nesting)	None/ WL/ None/ Group 1/ None	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats	No	Not expected to occur. No suitable vegetation present.
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	None/ SE/ Covered/ Group 1/ None	Nests and forages in coastal saltmarsh dominated by pickleweed	No	Not expected to occur. No suitable vegetation present.
California horned lark	*Eremophila alpestris actia*	None/ WL/ None/ Group 2/ None	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the high Sierra	No	Not expected to occur. No suitable vegetation present. Was heard high overhead in flight.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
California least tern	*Sternula antillarum browni* (nesting colony)	FE/ SE, FP/ Covered/ Group 1/ None	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flat	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
double-crested cormorant	*Phalacrocorax auritus* (nesting colony)	None/ WL/ None/ Group 2/ None	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	No	Not expected to occur. No suitable vegetation present.
least bittern	*Ixobrychus exilis* (nesting)	BCC/ SSC/ None/ Group 2/ None	Nests in freshwater and brackish marshes with dense, tall growths of aquatic and semi-aquatic vegetation	No	Not expected to occur. No suitable vegetation present.
western snowy plover	*Charadrius alexandrinus nivosus* (nesting)	FT, BCC/ SSC/ Covered/ Group 1/ None	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	No	Not expected to occur. No suitable vegetation present.
western yellow-billed cuckoo	*Coccyzus americanus occidentalis* (nesting)	FT, BCC/ SE/ None/ Group 1/ None	Nests dense, wide riparian woodlands and forest with well-developed understories	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
western bluebird	*Sialia mexicana*	None/ None/ Covered/ Group 2/ None	Nests in old-growth red fir, mixed conifer, lodgepole pine habitats near wet meadows used for foraging	No	Not expected to occur. No suitable habitat on site.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
light-footed Ridgway's rail	*Rallus obsoletus levipes*	FE/ SE, FP/ Covered/ Group 1/ None	Coastal wetlands, brackish areas, coastal saline emergent wetlands	No	Not expected to occur. No suitable vegetation present. The site is outside of the species' known geographic range.
Mammals					
San Diego desert woodrat	*Neotoma lepida intermedia*	None/ SSC/ None/ Group 2/ None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	No	Low potential to occur. Limited suitable habitat and no middens were observed. This species is found within the vicinity[2].
big free-tailed bat	*Nyctinomops macrotis*	None/ SSC/ None/ Group 2/ WBWG:MH	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
American badger	*Taxidea taxus*	None/ SSC/ Covered/ Group 2/ None	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, pastures, especially with friable soils	No	Low potential to occur. Suitable habitat is present, however surrounding vicinity is fairly developed. This species is found within the vicinity[2].
hoary bat	*Lasiurus cinereus*	None/ None/ None/ None/ WBWG:M	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	No	Not expected to occur. No suitable vegetation present.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
Mexican long-tongued bat	*Choeronycteris mexicana*	None/ SSC/ None/ Group 2/ WBWG:H	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland; roosts in caves, mines, and buildings	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
pocketed free-tailed bat	*Nyctinomops femorosaccus*	None/ SSC/ None/ Group 2/ WBWG:M	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, buildings	No	Not expected to roost, low potential to forage. Limited suitable vegetation present, however a CNDDB record occurs over Lake Jennings.
Stephens' kangaroo rat	*Dipodomys stephensi*	FE/ ST/ None/ Group 1/ None	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover or in disturbed areas	No	Not expected to occur. The site is outside of the species' known geographic range.
Townsend's big-eared bat	*Corynorhinus townsendii*	None/ SC, SSC/ None/ Group 2/ WBWG:H	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, also man-made structures and tunnels	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].
western red bat	*Lasiurus blossevillii*	None/ SSC/ None/ Group 2/ WBWG:H	Forest, woodland, riparian, mesquite bosque and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	No	Not expected to occur. No suitable vegetation present.
western yellow bat	*Lasiurus xanthinus*	None/ SSC/ None/ None/ WBWG:H	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 ft.; roost in riparian and palms	No	Not expected to occur. No suitable vegetation present. This species is found within the vicinity[2].

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
California leaf-nosed bat	*Macrotus californicus*	None/ SSC/ None/ Group 2/ WBWG:H	Riparian woodlands, desert wash, desert scrub; roosts in mines and caves, occasionally buildings	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
cougar	*Puma concolor*	None/ None/ Covered/ Group 2/ None	Scrubs, chaparral, riparian, woodland, forest; rests in rocky area, and on cliffs and ledges that provide cover; most abundant in riparian area and brushy stages of most habitats throughout California, except deserts	No	Not expected to occur. The surrounding vicinity is fairly developed.
Invertebrates					
Riverside fairy shrimp	*Streptocephalus woottoni*	FE/ None/ Covered/ Group 1/ None	Vernal pools, non-vegetated ephemeral pools	No	Low potential to occur. No vernal pools present.
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE/ None/ Covered/ Group 1/ None	Vernal pools, non-vegetated ephemeral pools	No	Low potential to occur. No vernal pools present.
Thorne's hairstreak	*Callophrys thornei*	None/ None/ Covered/ Group 1/ None	Interior cypress woodland dominated by host plant *Hesperocyparis forbesii* (Tecate cypress)	No	Not expected to occur. No suitable vegetation present.
western beach tiger beetle	*Cicindela latesignata latesignata*	None/ None/ None/ Group 2/ None	Mudflats and beaches in coastal Southern California.	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.

Table D-2
Special-Status Wildlife Species Not Expected or Low Potential to Occur

Common Name	Scientific Name	Status (Federal/State/MSCP County Subarea Plan/County of San Diego/Other)[1]	Habitat Associations	Verified On Site Yes/No (direct / indirect evidence)	Factual Basis for Potential to Occur
western tidal-flat tiger beetle	*Cicindela gabbii*	None/ None/ None/ Group 2/ None	Inhabits estuaries and mudflats along the coast of Southern California.	No	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
monarch	*Danaus plexippus*	None/ None/ None/ Group 2/ None	Wind-protected tree groves with nectar sources and nearby water sources	No	Low potential to occur. No suitable vegetation present.
Quino checkerspot	*Euphydryas editha quino*	FE/ None/ None/ Group 1/ None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta* (dwarf plantain), *Antirrhinum coulterianum* (white snapdragon), *Cordylanthus rigidus (*rigid bird's beak*)*, *Castilleja exserta (*purple owl's clover*)*, *Collinsia heterophylla (*purple Chinese houses*),* and *Plantago patagonica* (woolly plantain) (Silvarado Occurrence Complex).	No	There is a moderate potential to occur due to the presence of suitable habitat. Focused surveys were negative hence it is concluded that the species is absent.
Hermes copper	*Lycaena hermes*	FC/ None/ None/ Group 1/ None	Mixed woodlands, chaparral and coastal scrub	No	Low potential. No host plant is found onsite. This species is found within the vicinity[2].

List based on a search of all wildlife species found in the CNDDB database for the El Cajon quadrangle and the eight surrounding U.S. Geological Service (USGS) quadrangles conducted in December 2015 and the Comprehensive List of Species provided by San Diego County November 14, 2014.

[1] **Status Designations:**
Federal
BCC: Fish and Wildlife Service: Birds of Conservation Concern
FC: Candidate for federal listing as threatened or endangered

FE: Federally-listed Endangered
FT: Federally-listed as Threatened
FSS: United States Forest Service Sensitive
BLMS: Bureau of Land Management Sensitive Species
State Designations:
SSC: California Special Concern Species
FP: California Department of Fish and Game Fully Protected Species
WL: California Department of Fish and Game Watch List Species
SE: State-listed as Endangered
ST: State-listed as Threatened
County Designations:
San Diego MSCP
Covered: MSCP County of San Diego Subarea Plan Covered species
County of San Diego Sensitive Wildlife List
Group 1: Animals of high sensitivity (listed or specific natural history requirements)
Group 2: Animals declining, but not in immediate threat of extinction or extirpation
Other Designations:
WBWG:H Western Bat Working Group: High Priority
WBWG:LM Western Bat Working Group: Low-Medium Priority
WBWG:M Western Bat Working Group: Medium Priority
WBWG:MH Western Bat Working Group: Medium-High Priority

2 **Vicinity:** CNDDB database species found within the El Cajon quadrangle.

APPENDIX E

Conceptual Resource Management Plan

CONCEPTUAL RESOURCE MANAGEMENT PLAN
for
GREENHILLS RANCH II PROJECT
San Diego County, California
PDS 2014-MPA-14-023, PDS2016-SPA-16-001

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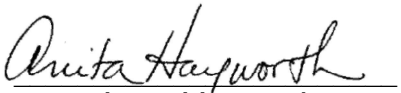

Anita Hayworth

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1 INTRODUCTION

This Conceptual Resource Management Plan (CRMP) has been prepared for the proposed Greenhills Ranch II Project in accordance with the mitigation requirements identified in the Biological Resources Report for the Greenhills Ranch II Project (Dudek 2017). This document is consistent with the format and content requirements of the County of San Diego (County) Report Format and Content Requirements – Biological Resources for preparing a CRMP (County of San Diego 2010a).

The Greenhills Ranch II Project proposed the construction of 63 lots for single-family residential homes within the approximately 36-acre property (with approximately one acre of offsite impacts) located in Lakeside Community Plan area southwest of Lake Jennings in unincorporated San Diego County, California. The proposed project would impact a total of approximately 20.70 acres on- and off-site, including 12.74 acres of native vegetation. The remainder of the property would include 8.89 acres of open space preserve and 5.84 acres of impact neutral open space as required by the mitigation requirement based on the County's Significance Determination and Report and Format Requirements – Biological Resources (County of San Diego 2010b). An additional offsite mitigation area is included in this CRMP and totals 10.23 acres. This additional area is contiguous with the onsite open space area. This proposed additional off-site mitigation is entirely composed of highly diverse and intact coastal sage scrub dominated by California sagebrush, lemonadeberry, lauren sumac, California buckwheat, and includes a non-wetland waters, a small patch of San Diego County viguiera, and a pair of California gnatcatchers. It is high quality habitat that is similar to and contiguous with the on-site open space. The off-site mitigation area is also connected to other preserve areas to the west. It includes slope areas and well as a ridgeline providing diversity in topography and visual continuity.

A CRMP is required for projects in the County when a planned project proposes open space preservation that would significantly benefit from active management and/or monitoring of biological and/or cultural resources.

1.1 Purpose of Biological Resources Management Plan

The purpose of this CRMP is to provide direction for the permanent preservation and management of the on-site biological open space preserve. The objectives of this CRMP are to:

A. Guide management of vegetation communities/habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural values.

B. Serve as a descriptive inventory of vegetation communities, habitats, and plant and animal species that occur on or use this property.

C. Establish the baseline conditions from which adaptive management will be determined and success will be measured.

D. Provide an overview of the operation, maintenance, administrative, and personnel requirements to implement management goals, and serve as a budget planning aid.

The details of this Conceptual RMP may be modified when the Final RMP is prepared and submitted to the County for approval. The County will review the Final RMP to ensure that it meets the specified purpose and objectives.

1.2 Implementation

1.2.1 Resource Manager Qualifications and Responsible Parties

Proposed Resource Manager

This CRMP will be implemented and managed by one of the following resource managers:

- Conservancy group
- Natural resources land manager
- Natural resources consultant
- County Department of Parks and Recreation
- County Department of Public Works
- Federal or state wildlife agency (U.S. Fish and Wildlife Service, California Department of Fish and Wildlife (CDFW; formerly California Department of Fish and Game))
- Federal land manager, such as Bureau of Land Management
- City land managers, including but not limited to departments of public utilities, parks and recreation, and environmental services.
- State land managers, such as California State Parks

If the developer desires that the department of parks and recreation manage the land, the following criteria must be met:

a. The land must be located inside a pre-approved mitigation area (PAMA) or proposed PAMA, or otherwise deemed acceptable by the director of parks and recreation (DPR).

b. The land must allow for public access.

c. The land must allow for passive recreation opportunities, such as a trails system.

The resource manager shall be approved in writing by the director of Planning and Development Services (PDS), the director of public works (DPW), or the DPR. Any change in the designated resource manager shall also be approved in writing by the direct County department that originally approved the resource manager. Appropriate qualifications for resource managers include, but are not limited to:

- 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 CRMP
- At least one staff member with a biological, ecological, or wildlife management degree, or a Memorandum of Understanding (MOU) with a qualified person with such a degree
- If cultural sites are present, a cultural resource professional on staff or an MOU with a cultural consultant
- Experience with habitat and cultural resource management in Southern California.

Proposed Land Owner

Fee title of separate open space lots may be held by the HOA, a land/resource manager or another appropriate land owner (e.g., land trust, conservancy, or public agency), depending on the particular circumstance.

Proposed Easement Holder

If the land is transferred in fee title to a non-governmental entity, a Biological Open Space Easement or Conservation Easement must be recorded. This easement should be dedicated to the County, but it may also include other appropriate agencies as a grantee or third-party beneficiary. If title to the land is transferred to the County or other public conservation entity, no easement is necessary.

Restoration Entity

If revegetation/restoration activities are required, management responsibility for the revegetation/restoration area shall remain with the restoration entity until restoration/revegetation has been completed. Upon County/agency acceptance of the revegetated/restored area, management responsibility for the revegetation/restoration area will be transferred to the resource manager.

1.2.2 Financial Mechanism

Acceptable financial mechanisms include the following:

- Special District. Formation of a Lighting and Landscape District or Zone, or Community Facility District as determined appropriate by the Director of the Planning and Development Services (PDS), DPW or DPR.

- Endowment. A one-time, non-wasting endowment, which is tied to the property, and is intended to be used by the Resource Manager to implement the RMP.
- Other acceptable types of mechanisms including annual fees, to be approved by the Director of PDS, DPW or DPR.
- Transfer of ownership to existing entity (e.g., County of San Diego) for management.

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. Start-up tasks include fence and sign installation around the on-site open space preserve, 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, and general monitoring and reporting. These habitat management tasks commence immediately upon initiation of long-term management by the resource manager.

1.2.3 Conceptual Cost Estimate

Table 1 includes the resource management tasks that are proposed for the Greenhills Ranch II CRMP. Appendix A will include the draft Property Analysis Record (PAR) for the tasks listed below.

Table 1
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (Times per year)
	Biological Tasks	
✓	Baseline Inventory of resources (if original inventory is over 5 years old)	One time
✓	Update biological mapping	Once every 5 years.
✓	Update aerial photography	Once every 5 years.
✓	Removal of invasive species	Annually
	Predator control	
	Habitat Restoration/Installation	
	Habitat Restoration/Monitoring and Management	
	Poaching control	
✓	**Species Surveys (include a separate line for each species)** 1. Focused protocol surveys for California gnatcatcher (*Polioptila californica californica*) 2. Cactus wren	Once every 5 years
✓	**Species Management (include separate line for each specific task)** 1. California gnatcatcher (*Polioptila californica californica*) 2. Cactus wren	As-needed basis
	Noise management, if required	

Table 1
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (Times per year)
	For lands within the MSCP and outside PAMA, consult Table 3-5 of the MSCP Plan for required biological resource monitoring	
✓	Monitoring visits	Quarterly
	Operations, Maintenance, and Administration Tasks	
✓	Establish and maintain database and analysis of data	Annually
✓	Prepare and submit annual report to County	Annually
✓	Review fees for County review of annual report	Annually
✓	Review and if necessary, update management plan	Every 5 years
✓	Construct permanent signs	One time
✓	Replace signs	Every 10 years
✓	Construct permanent fencing	One time
✓	Maintain permanent fencing	Annually
✓	Replace permanent fencing	Every 20 years
✓	Remove trash and debris	Quarterly
	Coordinate with Department of Environmental Health (DEH) and Sheriff	
	Maintain access road	
	Install stormwater best management practices (BMPs)	
	Maintain stormwater BMPs	
	Restore built structure	
	Maintain built structure	
	Maintain regular office hours	
	Inspect and service heavy equipment and vehicles	
	Inspect and repair buildings, residences, and structures	
	Inspect and maintain fuel tanks	
✓	Coordinate with utility providers and easement holders (SDG&E)	As-needed basis
	Manage erosion and sediment control (as required)	
✓	Coordinate with law enforcement and emergency services (e.g., fire)	As-needed basis
	Coordinate with adjacent land managers	
	Remove graffiti and repair vandalism	
	Public Use Tasks	
	Construct trail(s)	
	Monitor, maintain/repair trails (unless a trail easement has been granted to the County)	
✓	Control public access	Quarterly
	Provide ranger patrol	
	Manage fishing and/or hunting program (if one is allowed)	
	Provide Neighbor Education – Community Partnership	
	If homeowners association (HOA) is funding management, provide annual presentation to HOA	
	Coordinate volunteer services	

Table 1
Biological Resource Management Tasks

Check if Applies	Tasks	Frequency (Times per year)
	Provide emergency services access/response planning	
Fire Management Tasks		
✔	Coordinate with applicable fire agencies and access (gate keys, etc.) for these agencies	As-needed basis
	Plan fire evacuation for public use areas	
	Protect areas with high biological importance	
	Hand-clear vegetation	
	Mow vegetation	
Post-Fire Tasks		
	Control post-fire erosion	
	Remove post-fire sediment	
	Reseed after fire	
	Replant after fire	

1.2.4 Reporting Requirements

An RMP annual report will be submitted to the County (and resource agencies, as applicable), along with the submittal fee to cover County staff review time. The 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 adaptive management (changes) resulting from previous monitoring results and provide a methodology for measuring the success of adaptive management.

For new special-status 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 of California (State). The report shall also include copies of invasive plant species forms submitted to the State or County.

A fee for staff review time will be collected by the PDS upon submittal of the annual report. The RMP may also be subject to an ongoing deposit account for staff to address management

challenges as they arise. Deposit accounts, if applicable, must be 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 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 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 following milestones:

- For subdivisions, prior to the approval of grading or improvement plans, or prior to approval of the parcel/final map, whichever is first
- For permits, prior to construction or use of the property in reliance on the permit.

This agreement will be provided at a later date.

1.3 Limitations and Constraints

Management constraints that may affect meeting the RMP goals could include environmental factors; legal, political, or social factors; or financial factors.

Altered Fire Regime. This region has experienced periodic fires over the years. The proposed development and subsequent removal of vegetation could alter the natural fire regime. A catastrophic fire within the open space preserve could alter the existing vegetation, convert vegetation communities, and reduce habitat for species.

Urbanized Environment. Although the open space preserve area is designed as a large, contiguous block of habitat, the associated residential development could have direct and indirect impacts on the open space environment. Disturbances of plants and wildlife by humans and domestic pets include the following: introduction/expansion of non-native species, littering, trampling of vegetation, altered hydrology through landscaping and irrigation, disturbance from lighting associated with the residences and cars, and increased noise impacts. Human presence can particularly disturb wildlife during the breeding/nesting season.

These are some examples of potential constraints with respect to obtaining the open space preserve goals and objectives. At this time, no legal, political, or financial constraints are known.

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2 PROPERTY DESCRIPTION

2.1 Legal Description

The Greenhills Ranch II Project is located on a 36.20-acre property in the Lakeside Community Plan area within unincorporated San Diego County, California (Figure 1). The study area, which includes approximately 1 acre of offsite impacts, lies southwest of Lake Jennings, west of Lake Jennings Park Road, north of the intersection of Adlai Road and Audubon Road, east of Lakeview Road in Lakeside (Figure 2). The study area includes Assessor Parcel Numbers (APNs) 395-151-16, and 73; 395-160-15; and 398-400-01, 08, 09, 20, 54, and 55. The project proposes the construction of 63 lots for single family residential homes within the 37-acre study area, which includes the 36.20-acre property and adjacent offsite impact area. The subject of this CRMP also includes a 10.23 acre portion of the adjacent property that will be added to the open space for mitigation purposes.

2.2 Environmental Setting

2.2.1 Site Description

The study area is between 550 and 800 feet above mean sea level (amsl) and approximately 0.1 mile southwest of Lake Jennings, approximately 0.9 mile north of Interstate-8 (I-8), and approximately 1.6 miles east of State Route 67 (SR-67). Land use in the general vicinity includes open space and residential areas to the west, residential areas to the north and south, the R.M. Levy Water Treatment Plant immediately to the northeast, as well as Lake Jennings to the northeast. The current land use of the study area is existing rural residential housing and open space which provides habitat for MSCP-covered species and limited passive recreation. The project site is private property owned by Atlas Investments, as is the offsite mitigation area.

2.2.2 Topography and Soils

The study area generally is within the foothills of the Peninsular Range in a transitional area between the coast and the mountains. The nearest weather station is located near Lakeside east of Lakeside, California, and generally receives an average rainfall of approximately 15.6 inches per year (Western Regional Climate Center 2015).

According to USDA (2015b), there are four soil types found in the study area within the Escondido and Friant series. Descriptions based on Bowman (1973) and the Web Soil Survey (USDA 2015b) appear as follows.

2.2.3 Fire Factors

San Diego County is prone to increased fire risk due to drought conditions in the region. Analysis of fire within the region has been provided by the fire protection plan consultant.

2.3 Land Use

The proposed project is located east of the unincorporated community of Lakeside in central San Diego County within private lands. In San Diego County, several resource conservation-planning efforts have been completed or are currently in progress with the long-term goal of establishing a regional reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of biological reserve areas in conformance with the State Natural Communities Conservation Plan (NCCP) Act as well as streamlining compliance with the federal Endangered Species Act (FESA) and California Endangered Species Act (CESA).

The project study area is within the boundaries of land covered by the MSCP County of San Diego Subarea Plan which was adopted in 1997; more specifically, the study area falls within the Unincorporated Land in the Metro-Lakeside-Jamul Segment (Figure 3) (County of San Diego 1997).

The development footprint for the proposed project includes the required 100-foot-wide fuel management zone.

SOURCE: ESRI, 2015

FIGURE 1
Regional Map

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Conceptual Resource Management Plan for Greenhills Ranch II, May 2017

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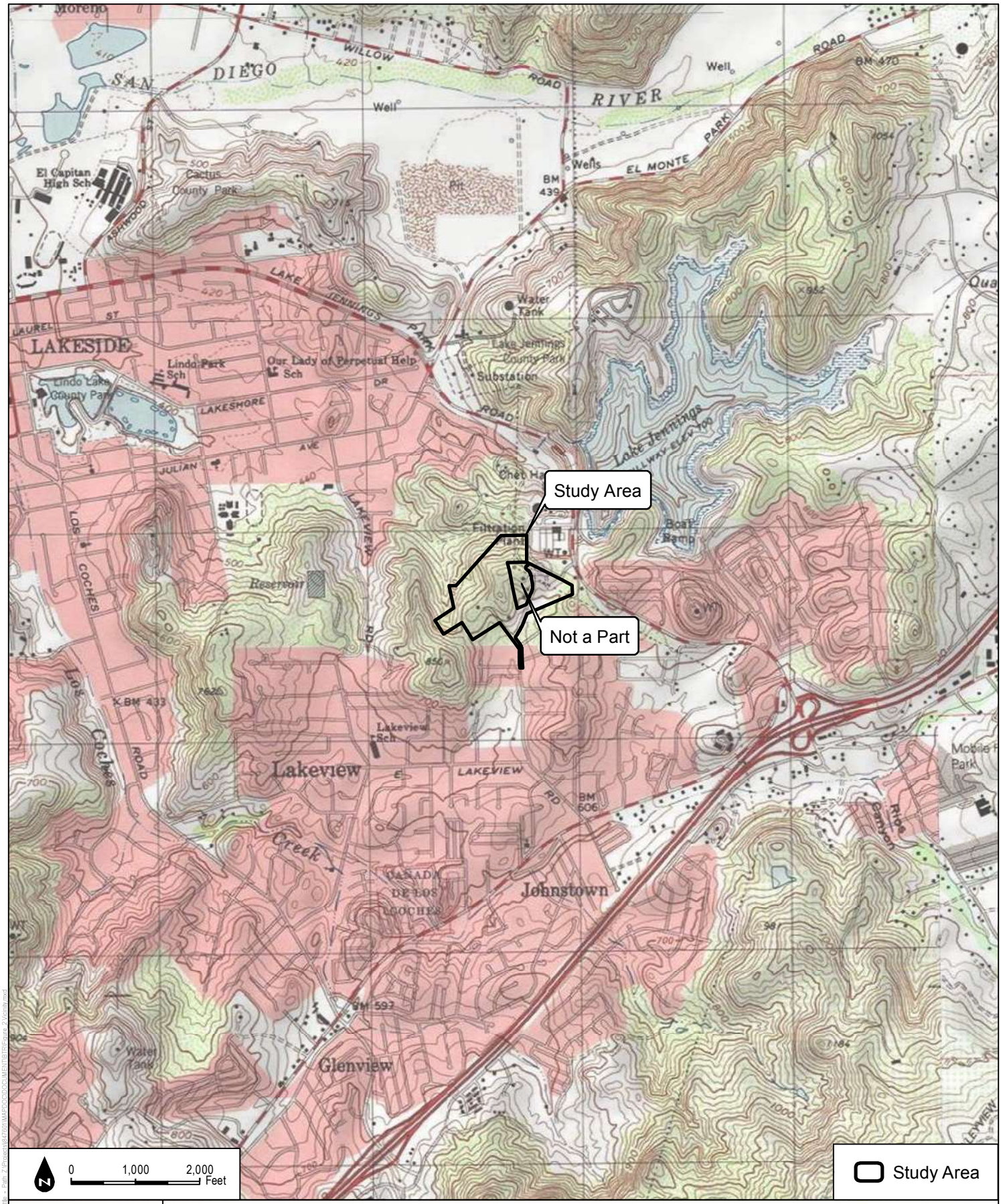

DUDEK

SOURCE: USGS 7.5-Minute Series El Cajon Quadrangle.

FIGURE 2

Vicinity Map

Conceptual Resource Management Plan for Greenhills Ranch II, May 2017

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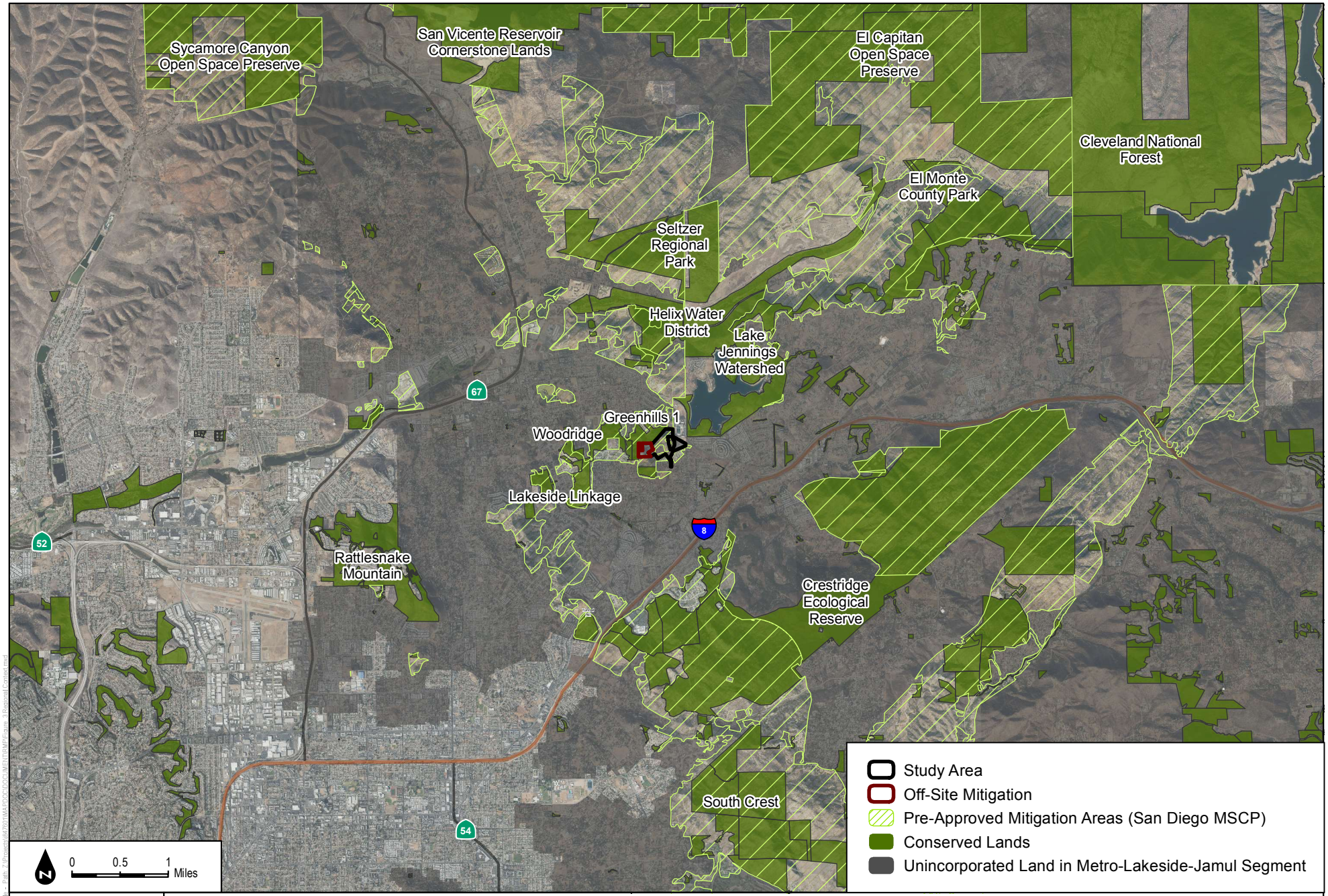

SOURCE: SANDAG, 2016

FIGURE 3

Regional Context

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Conceptual Resource Management Plan for Greenhills Ranch II, May 2017

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3 BIOLOGICAL RESOURCES DESCRIPTION

A biological resources technical report has been prepared and used to prepare this CRMP (Dudek 2017). The following information is based on resource mapping that was completed in 2015.

3.1 Habitat Types/Vegetation Communities

The biological open space preserve will include a preserve area for mitigation for project impacts as well as an impact neutral open space for the protection of biological resources. The impact neutral open space is not located within PAMA but includes resources that will not be impacted and thus it is included in this CRMP. The open space will include the following upland vegetation: Diegan coastal sage scrub (including disturbed) and Riversidian upland sage scrub.

These vegetation communities and land cover types are described below; their acreages are presented in Table 2

Table 2
Vegetation Communities and Land Cover Types
Conserved in Biological Open Space Preserve

Habitat Types/Vegetation Communities	Code [1]	Open Space Preserve (Ac.)	Impact Neutral Open Space (Ac.)
Upland Scrub			
Diegan coastal sage scrub onsite*	32500	8.87	4.13
Diegan coastal sage scrub offsite	32500	10.23	
Disturbed Diegan coastal sage scrub*	32500	0.01	0.03
Riversidian Upland Sage Scrub*	32500	--	0.87
	Subtotal	*19.11*	*5.03*
Non-Natural Land Covers			
Disturbed	11300	0.01	1.19
Developed		--	1.25
	Subtotal	*0.01*	*2.44*
	Total	**19.12**	**7.47**

[1] Holland (1986) as modified by Oberbauer et al. (2008).
* Considered special-status by the County (2010a).

3.1.1 Coastal Sage Scrub

This plant community is considered sensitive by resource agencies and the County of San Diego. According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages, with

scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric slopes.

Diegan coastal sage scrub and all its variants generally are recognized as special-status plant communities by local, state, and federal resource agencies. It supports a diversity of special-status plants and animals, and it is estimated that it has been reduced by 75% to 80% of its historical coverage throughout Southern California. It is the focus of the current State of California Natural Communities Conservation Planning Program (NCCP). Diegan coastal sage scrub is a MSCP Tier II vegetation community (County of San Diego 1997).

Diegan coastal sage scrub vegetation on site and offsite is dominated by California sagebrush, Eastern Mojave buckwheat, laurel sumac and coyotebrush (*Baccharis pilularis*). The majority of the property is mapped as Diegan coastal sage scrub. A disturbed form of Diegan coastal sage scrub is found on site, primarily adjacent to areas that are mapped as disturbed or developed lands where there are more non-native species present. The offsite habitat is contiguous with the onsite, thus creating a well-designed preserve for mitigation and long-term management in perpetuity.

3.1.2 Riversidean Upland Sage Scrub

Riversidean upland sage scrub is the most xeric expression of coastal sage scrub south of Point Conception. Riversidean upland sage scrub alliance communities are co-dominated by California sagebrush, California buckwheat, and foxtail chess (*Bromus madritensis*). This community has a fairly open shrub canopy (Holland 1986). Riversidean upland sage scrub alliance often occurs on xeric sites including steep slopes with severely drained soils or clays that release stored soil moisture slowly (Holland 1986). This community intergrades with southern California chaparrals at higher elevations (Holland 1986). Riversidian upland sage scrub is not described within a MSCP Tier, however it would classify as a coastal sage-chaparral scrub community which is consider a MSCP Tier II vegetation community (County of San Diego 1997)

3.1.3 Disturbed/Developed Habitat

Disturbed habitat is represented by cleared land and dirt roads throughout the site.

3.2 Jurisdictional Wetlands and Waters

Included in the vegetation communities above are several drainages mapped under the jurisdiction of ACOE, RWQCB, and CDFW. Jurisdictional areas were mapped and evaluated in 2015 for the proposed project. The site contains a total of approximately 942 linear feet (0.04 acre) of non-wetland ephemeral drainages under the jurisdiction of ACOE, RWQCB, and CDFW. Approximately 294 linear feet (0.01 acre) of the non-wetland ephemeral drainages occur within the open space preserve, a total of 438 linear feet offsite are within the offsite preserve,

and approximately 365 linear feet (0.02 acre) of non-wetland ephemeral drainages occur within the impact neutral open space. It should be noted that these drainages are mapped as an overlay in relation to the vegetation community mapping and therefore are not added in the cumulative total acreages of the site.

3.3 Flora

A total of 113 vascular plant species, consisting of 70 native species (62 %), and 43 non-native species (38%), were recorded in the study area during site surveys.

3.4 Fauna

The study area supports habitat for common upland species. Diegan coastal sage scrub and Riversidian upland sage scrub within the study area provide foraging and nesting habitat for migratory and resident bird species and other wildlife species.

There were 73 species observed in the study area. Species richness in the study area is low due to the property size, amount of undeveloped land, and the number of native upland habitats. Species richness generally increases with the presence of more habitat types and ecotones. Although species richness is low, the number of species and the wildlife population levels (i.e., number of individuals) is typical for undeveloped areas in this region, particularly those areas that support upland habitat types adjacent to developed areas.

3.5 Special-Status Plants

Endangered, rare, or threatened plant species, as defined in Section 15380(b) of the CEQA Guidelines (14 CCR 15000 et seq.), are referred to as “special-status plant species” and include (1) endangered or threatened plant species recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), (2) plant species with a CRPR 1 through 4, (CDFW 2015b; CNPS 2015), and (3) plant species considered “sensitive” by the County of San Diego (County of San Diego 2010b).

Special-status plant surveys were conducted within the study area to determine the presence or absence of plant species. Three special-status plant species were detected within the study area during the October 2015 and May 2016 surveys, all of which are County List C or D species. List C plants are plants that may be rare, but more information is needed to determine their true rarity status, and List D plants are those with limited distribution and are uncommon, but not presently rare or endangered (County of San Diego 2010b).

The special-status plant species within the study area include San Diego sagewort (*Artemisia palmeri*), ashy spike-moss (*Selaginella cinerascens*), and San Diego County viguiera (*Viguiera* [= *Bahiopsis*] *laciniata)*.

3.6 Special-Status Wildlife

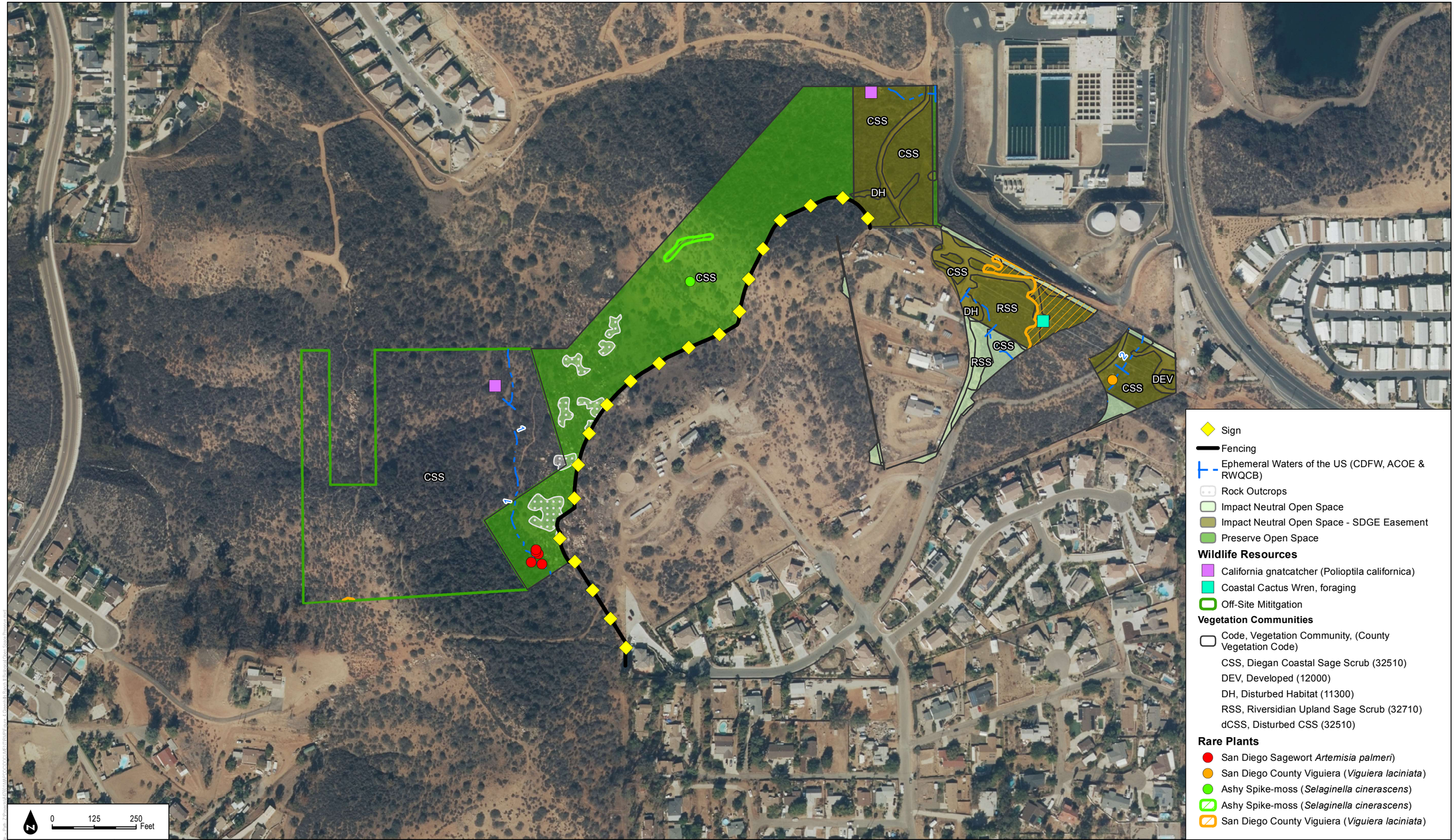
Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of the CESA and FESA; (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFW (2015); (3) mammals and birds that are fully protected (FP) species, as described in Fish and Game Code, Sections 4700 and 3511; (4) Birds of Conservation Concern (BCC), as designated by the USFWS (2008); and (5) wildlife species considered "sensitive" by the County of San Diego (Table 3, County of San Diego 2010b).

Two special-status wildlife species was observed within the Greenhills Ranch II study area: coastal California gnatcatcher, a federally threatened, CDFW SSC, and a County Group 1 and MSCP Covered species and coastal cactus wren, CDFW SSC, and a County Group 1 and MSCP Covered species.

3.7 Overall Biological Value

The vegetation communities/habitats that will be preserved and managed are described in Table 2. The open space preserve area is shown on Figure 4.

The open space preserve has a high functional value because it supports sensitive plant communities with topographic variation and due to its location within the County of San Diego MSCP Lakeside Linkage that consists of a continuous block of open space and provides live-in habitat for wildlife and plant species. The high quality coastal sage scrub, that would be preserved on-site is contiguous with preserved open space to the west and would remain intact for use by migratory birds and resident bird species, such as the coastal California gnatcatcher.



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SOURCE: SANDAG, 2016

FIGURE 4

Greenhills Ranch II Biological Open Space Preserve

Conceptual Resource Management Plan for Greenhills Ranch II, May 2017

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4 BIOLOGICAL RESOURCE MANAGEMENT

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 as part of the evaluation of the project during the 2015 and 2016 surveys. Ongoing species and habitat monitoring shall occur in accordance with County and regional standards. These standards typically include vegetation mapping every 5 years. 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 below.

4.2 Biological Management Tasks

Maintenance work within the open space preserve area shall be conducted by the designated Resource Manager at regular intervals and shall include regular inspections of the signage and fencing, human disturbance, presence of trash, and presence of exotic species (plants and animals). A general inventory will be conducted in the initial startup of the open space management. This will establish a baseline inventory and resource map.

The baseline inventory update will be conducted during the first year of active management. These data will allow the Resource Manager to measure habitat changes caused by natural and human effects and to evaluate management efforts during subsequent years. To optimize the probability of detecting sensitive species reported or expected to occur within on site, this survey should be conducted between March and June, when the majority of sensitive plant and wildlife species are most likely to be detected. The biological management tasks are outlined in Table 1, and are discussed below.

4.2.1 Update Biological Mapping

Every 5 years, the Resource Manager will update the vegetation and sensitive resources mapping on a current aerial photograph of the site. This task includes mapping vegetation over the entire open space preserve and updating the aerial photography.

4.2.2 Exotic Plant Control

The Resource Manager will identify and track exotic species infestations if they should occur. Weed control measures will be implemented as necessary to prevent expansion of existing or establishment of new exotic species in the open space preserve.

If the use of herbicide is deemed necessary, application should be minimal and may only occur in compliance with all federal and state laws. 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

The following survey shall be conducted every 5 years for special-status wildlife species:

- **California gnatcatcher.** Surveys shall follow the USFWS California gnatcatcher 1997 presence/absence survey protocol (USFWS 1997). A minimum of three surveys are required within suitable habitat.
- **Coastal cactus wren.** Surveys will be conducted in conjunction with the California gnatcatcher surveys since the species use the same habitat types. There is no official protocol for conducting surveys for cactus wren.

4.2.4 Species Management

Based on the species surveys described earlier, management tasks for the California gnatcatcher and coastal cactus wren are required, as needed based on survey results.

4.2.5 Monitoring

The County requires monthly monitoring of the open space preserve. The Resource Manager shall visit the open space preserve quarterly in order to monitor the overall conditions of the open space preserve and determine if any management tasks are required.

4.3 Adaptive Management

The open space preserve supports a number of special-status plant and animal species and important vegetation communities. If it is determined that the special-status wildlife or plant species are documented to be declining over time, then remedial measures may need to be initiated. Prior to initiation of any remedial measures, a study shall be conducted to determine potential causes of such species decline. If the causes of species decline are a result of human activity, then the open space preserve manager shall develop and implement a program in conjunction with consultation with the County to address the issues causing the species decline. The responsibility for payment for additional studies or other protective measures shall be the responsibility of the developer and/or HOA, who shall coordinate with the open space preserve resource manager accordingly.

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 agencies for approval as required.

4.4 Operations, Maintenance, and Administration Tasks

Section 4.2.1 describes a list of tasks such as baseline inventory, vegetation mapping, and regular visits to be conducted by the Resource Manager. Regular visits will occur quarterly.

4.4.1 Data and Reporting

The following tasks shall be completed annually.

1. Maintain a resource database of pertinent documents and biological resource data;
2. Prepare and submit a report to the County, described in more detail in Section 1.2.4; and
3. Review fees for county review of annual report.

In addition, every 5 years, the Resource Manager shall review, and if necessary, update the management plan.

4.4.2 Installation of Fencing and Signs

The project developer will be responsible for installing permanent open space preserve signs on the permanent fence marking the open space preserve, as shown on Figure 4. The open space preserve signs will be placed every 100 feet not less than three feet in height from the ground surface and state, "Sensitive Environmental Resources, Disturbance Beyond this Point is Restricted by Easement, Reference: County of San Diego Planning and Development Services, Environmental Review Number 89-08-026A." along the perimeter of the open space preserve. The fence shall be 42 inches and constructed of chain link or equivalent. Placement of permanent fencing is required prior to the conclusion of the grading activity. The permanent fence location(s) shall be identified in the field by a California Registered Engineer or licensed surveyor.

Maintenance/replacement of fencing and signs shall be done on an as-needed basis by the Reserve Manager. The signs shall be constructed in accordance with the County of San Diego Conditions of Approval Manual.

4.4.3 Trash/Debris Removal

The Reserve Manager will conduct general trash removal within the open space preserve during regular management site visits. Additionally, damage caused by vandalism will be repaired.

Small trash removal and vandalism repair will occur as needed during regular site visits quarterly. Large trash removal would be conducted annually.

4.4.4 Utilities

The Reserve Manager will coordinate with San Diego Gas and Electric as needed as needed to conduct management activities within the preserve. Currently, no tasks have been identified.

4.4.5 Law Enforcement and Emergency Services

The Reserve Manager will coordinate with the local sheriff's department, fire department, and emergency services department on an as-needed basis for activities related to management of the preserve (e.g., illegal trespassing).

4.5 Public Use Tasks

The open space preserve will not have public trails or other facilities. The open space preserve is intended to serve as a habitat preserve and as such is not compatible with most activities.

Activities that will be specifically prohibited include:

1. Use of herbicides (except to remove non-native species as necessary), pesticides, rodenticides, biocides, fertilizers, or other agricultural chemicals;
2. Use of OHVs and any other motorized vehicles except in the execution of management duties;
3. Grazing or other agricultural activity of any kind;
4. Recreational activities including, but not limited to, horseback riding, biking, target shooting, hunting, or fishing;
5. Commercial or industrial uses;
6. Construction, reconstruction, or placement of any building or other improvement, billboard, or sign;
7. Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other material;
8. Planting, introduction, or dispersal of non-native or exotic plant or animal species;
9. Altering the general topography of the open space preserve, including but not limited to building of roads and flood control work;

10. 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; and
11. Manipulating, impounding, or altering any natural watercourse, body of water, or water circulation on the open space preserve, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

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5 REFERENCES

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

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USFWS (U.S. Fish and Wildlife Service). 1997. *Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines*. February 28, 1997. http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/docs/cagn/coastal-gnatcatcher_survey-guidelines.pdf.

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APPENDIX A

On-Site Property Analysis Record
(To be provided by Land Manager)