HELIX Environmental Planning

El Camino Memorial Park Secret Canyon Project

Biological Technical Report

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ACRONYMS AND ABBREVIATIONS

AMSD	Area Specific Management Directive
BCME	Biological Construction Mitigation/Monitoring Exhibit
BMPs	Best Management Practices
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG Code	California Fish and Game Code
City	City of San Diego
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CSVR	Consultant Site Visit Record
CWA	Clean Water Act
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
GPS	Global Positioning System
HELIX	HELIX Environmental Planning, Inc.
I	Interstate
MHPA	Multi-habitat Planning Area
MMC	Mitigation Monitoring Coordination
MSCP	Multiple Species Conservation Program
project	El Camino Memorial Park Secret Canyon Project
project applicant	Clark & Green Associates
SR	State Route
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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1.0 INTRODUCTION

At the request of Clark & Green Associates (project applicant) and the City of San Diego (City), HELIX Environmental Planning, Inc. (HELIX) has completed this biological technical report for the El Camino Memorial Park Secret Canyon Project (project), which is proposed in the City of San Diego, San Diego County, California. The project would construct a 5.3-acre addition to the El Camino Memorial Park cemetery in two phases. Phase 1 includes the 2.6-acre portion of the proposed expansion that would require a grading permit. The Phase 2 area (2.7 acres) will incorporate fine grading only to prepare the ground for sod placement and will not require a grading permit. Phase 2 would, however, require a landscaping permit.

The purpose of this report is to document the existing biological conditions within the study area and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resources technical documentation necessary for review under the California Environmental Quality Act (CEQA) by the City and other responsible agencies for the project.

1.1 PROJECT LOCATION

The project site is located within the City of San Diego (City), California, north of State Route (SR) 52, south of SR 56, east of Interstate (I-) 805, and west of I-15 (Figure 1, *Regional Location*). The approximately 23-acre study area is situated in Section 3, Township 15 South, Range 3 West of the U.S. Geological Survey (USGS) 7.5-minute La Jolla quadrangle map (Figure 2, *Project Vicinity [USGS Topography]*). The study area is in an undeveloped portion of the El Camino Memorial Park cemetery, to the east of an unnamed tributary to Carroll Canyon Creek (Figure 3, *Project Vicinity [Aerial Photograph]*). The study area includes the 5.3-acre proposed cemetery expansion project footprint as well as portions of the El Camino Memorial Park property that are relevant to the project because of adjacency, Multi-habitat Planning Area (MHPA) designation, or their proposed use as mitigation for the project.

1.2 PROJECT DESCRIPTION

The project would expand the existing El Camino Memorial Cemetery into a new area of the cemetery property. The new area would be accessed from the existing cemetery via a clear-span bridge crossing of the jurisdictional streambed that bisects the site in a north-south direction. Runoff from the southeastern side of the project would be collected and transported by an earthen swale into a rip rap energy dissipation structure prior to discharge upslope of the existing streambed. Curbs along the edge of the access road would direct water from the roadway through a storm drain into a biofiltration basin which outlets to a second rip rap energy dissipation structure near the southern end of the site.

Three strand cable fencing or similar barriers will be placed where the currently proposed expansion area adjoins the adjusted MHPA. A buffer of native species will be planted between the project footprint and the MHPA, with coastal sage scrub species on the slope and native willows, mule fat, and coast live oak at the bottom of the slope near the creek.

2.0 METHODS

2.1 LITERATURE REVIEW

Prior to conducting biological field surveys, HELIX conducted a search of aerial imagery, soil survey data, USGS topographic maps, U.S. Fish and Wildlife Service (USFWS) critical habitat maps, City Multiple Species Conservation Program (MSCP) Subarea Plan designations, and sensitive species information from California Department of Fish and Wildlife Service's (CDFW) California Natural Diversity Database (CNDDB) and USFWS database records.

2.2 GENERAL BIOLOGICAL AND RARE PLANT SURVEYS

HELIX biologists Sally Trnka and Beth Ehsan conducted a general biological survey of the proposed development area on April 5, 2018, in order to map existing vegetation communities; evaluate the potential for sensitive plant and animal species to occur; and identify other sensitive biological resources constraints associated with the study area, such as potential waterways and wetlands (Table 1, *HELIX Survey Information*).

Table 1
HELIX SURVEY INFORMATION

Survey Date	Personnel	Purpose	Survey Times	Weather Conditions
12/6/2016	W. Larry Sward Erica Harris	Jurisdictional delineation	N/A	N/A
12/14/2016	W. Larry Sward	Jurisdictional delineation	N/A	N/A
4/5/2018	Sally Trnka Beth Ehsan	General biological survey	N/A	N/A
4/5/2018	Sally Trnka Beth Ehsan	Spring rare plant survey (development area)	N/A	N/A
5/23/2018	Amy Mattson	Spring rare plant survey (remaining area)	N/A	N/A
5/24/2018	Katie Bellon	Coastal California gnatcatcher (*Polioptila californica californica*)	0820/1120	Cloudy
6/2/2018	Katie Bellon	Coastal California gnatcatcher	0745/1045	Mostly Sunny
6/8/2018	Katie Bellon	Coastal California gnatcatcher	0745/1015	Sunny
6/12/2018	Amy Mattson	Summer rare plant survey	N/A	N/A
6/27/2018	Amy Mattson	Summer rare plant survey	N/A	N/A
5/28/2020	Amy Mattson	Updated rare plant survey	N/A	N/A
5/3/2021	Katie Bellon	Coastal California gnatcatcher	0745/1015	Mostly Cloudy
5/10/2021	Katie Bellon	Coastal California gnatcatcher	0745/0945	Cloudy
5/21/2021	Katie Bellon	Coastal California gnatcatcher	0730/0935	Mostly Cloudy
11/23/22	Amy Mattson	General biological survey update	0845/1040	Mostly Sunny
11/27/22	Amy Mattson	General biological survey update	1015/1215	Mostly Sunny
5/22/24	Beth Ehsan	Crotch's bumble bee (*Bombus crotchii*) habitat assessment	0900/0300	Mostly cloudy and clearing

Survey Date	Personnel	Purpose	Survey Times	Weather Conditions
5/24/24	Angelica Grunloh	Crotch's bumble bee first survey	0900/1645	Mostly cloudy
6/14/24	Angelica Grunloh	Crotch's bumble bee second survey	0830/1545	Partially cloudy and clearing
7/8/24	Alexander Walsh	Crotch's bumble bee third survey	0900/1500	Cloudy and clearing

Vegetation was mapped on a 1"=75' scale aerial photograph. The general biological survey included a spring rare plant survey of the proposed development area. The remainder of the survey area was surveyed by HELIX biologist Amy Mattson on May 23, 2018. A summer rare plant survey was conducted by Ms. Mattson on June 12, 2018, with a follow-up survey on July 27, 2018 to identify a variety of sand aster (*Corethrogyne filaginifolia* var. *filaginifolia*). An updated rare plant survey was conducted on May 28, 2020 by Ms. Mattson to check for current conditions and included two additional areas of MHPA in the northwest and southeast ends of the survey area. An updated general biological survey was conducted on November 23 and November 27, 2022 by Ms. Mattson to check for current conditions, resulting in minor revisions to the vegetation mapping. A habitat assessment and focused surveys for Crotch's bumble bee were conducted on May 22 and 24, June 14, and July 8, 2024. Rare plant locations were recorded using a handheld Global Positioning System (GPS) unit. The site was surveyed on foot with the aid of binoculars. Animal identifications were made in the field by direct, visual observation, or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. Plant and animal species observed or otherwise detected during the survey were recorded (Appendices A and B). However, the lists of species identified are not necessarily comprehensive accounts of all species that occur on the site, as species that are nocturnal, secretive, or seasonally restricted may not have been observed.

2.3 JURISDICTIONAL WETLAND DELINEATION

A jurisdictional delineation of the proposed project site and adjacent lands was conducted by HELIX biologists W. Larry Sward and Erica Harris on December 6, 2016, and by Mr. Sward on December 14, 2016 (HELIX Environmental Planning, Inc. [HELIX] 2017). Prior to beginning fieldwork, aerial photographs (1"=200' scale), topographic maps (1"=200' scale), and National Wetlands Inventory maps were reviewed to assist in determining the presence or absence of potential jurisdictional areas. The delineation included four soil pits. Three occurred in the main drainage: one in disturbed southern riparian forest, one at the interface of southern riparian woodland and disturbed southern riparian forest, and one in non-native vegetation. One soil pit was an upland counter point to the drainage sample point. Data sheets from the four soil pits are included as Appendix C. The delineation was conducted to identify and map any water and wetland resources potentially subject to U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act, and streambed and riparian habitat potentially subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game Code (CFG Code). The delineation was also conducted to determine the presence or absence of City Environmentally Sensitive Lands (ESL) Regulations wetlands or vernal pools. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated. Aerial photographs of the whole study area were reviewed in September 2018 to confirm the delineation.

2.4 WATERS OF THE U.S./WATERS OF THE STATE

Potential USACE wetland boundaries were determined using the three criteria (vegetation, hydrology, and soils) established for wetland delineations, as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (U.S. Army Corps of Engineers [USACE] 2008).

Areas were determined to be non-wetland waters of the U.S. if there was evidence of regular surface flow (e.g., bed and bank) but either the vegetation or soils criterion was not met. Jurisdictional limits for these areas were defined by the ordinary high water mark, which is defined in 33 CFR Section 329.11 as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas."

2.5 STREAMBED AND RIPARIAN HABITAT

Potential CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72). Riparian habitat is not defined in Title 14, but the section refers to vegetation and habitat associated with a stream. The CDFW jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

2.6 CITY WETLANDS

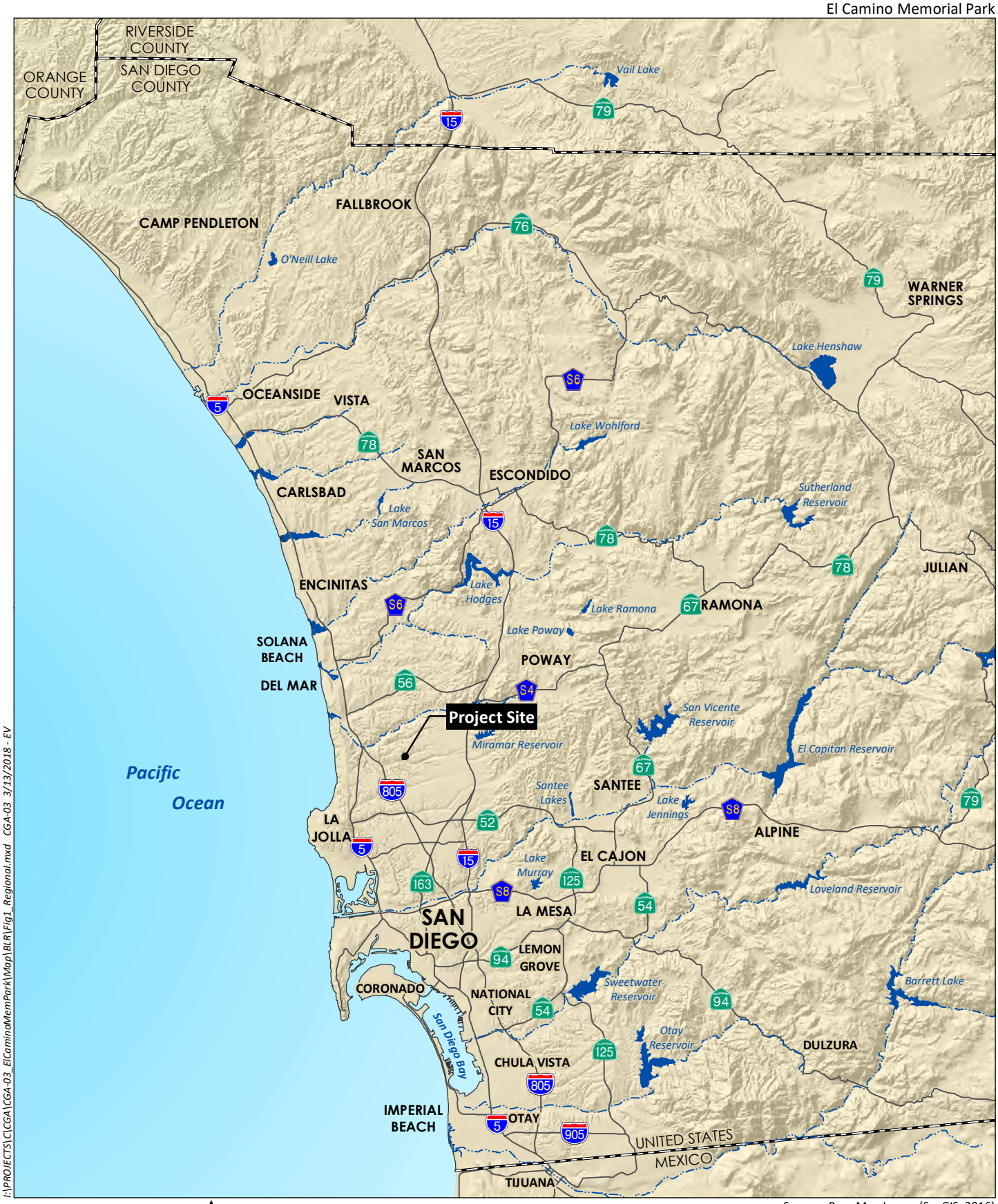
The City's Land Development Code (113.0101) defines wetlands as areas that are characterized by any of the following conditions:

"1. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;

"2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;

"3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands;

"4. Areas mapped as wetlands on Map C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).



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Source: Base Map Layers (SanGIS, 2016)

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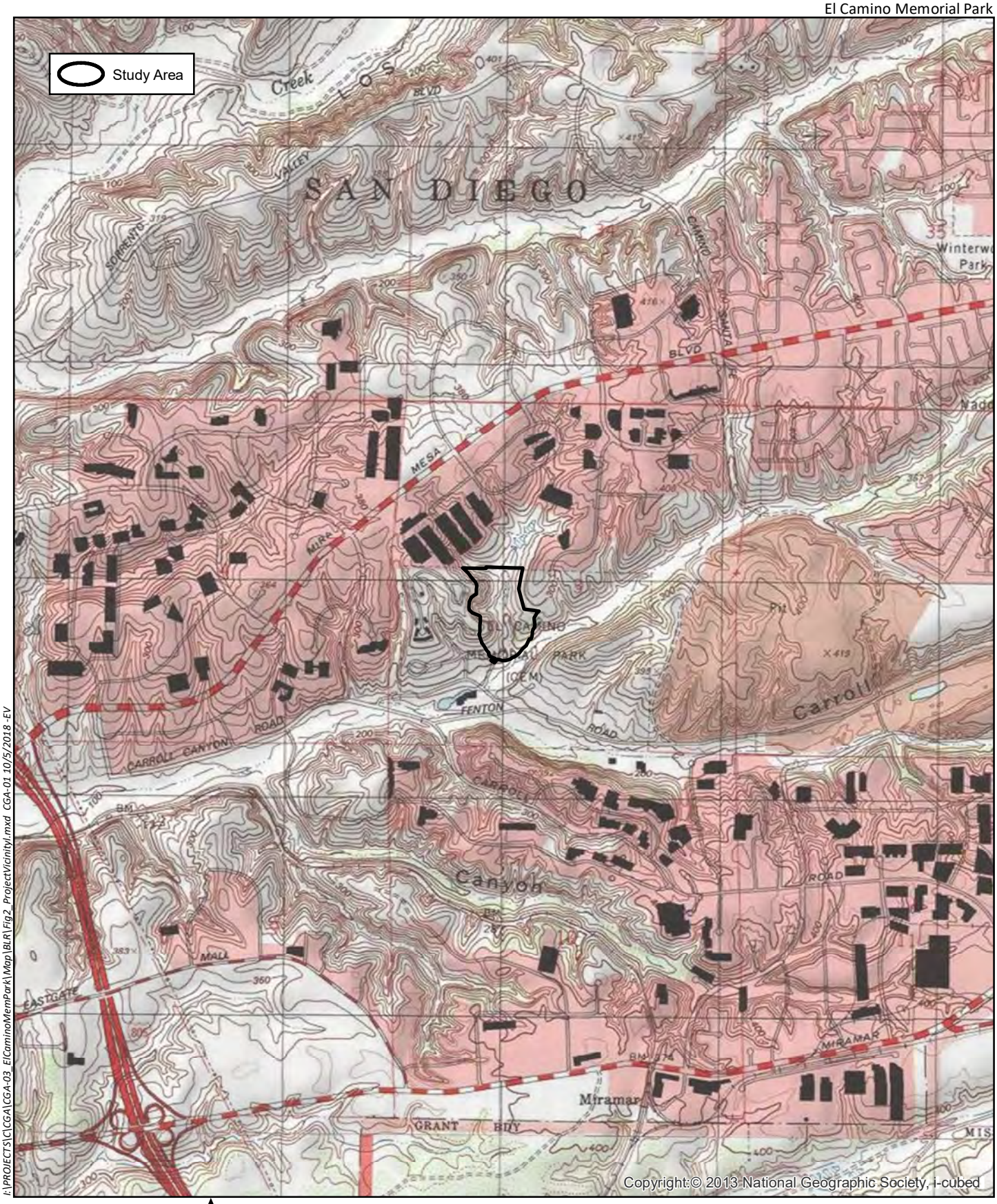
Regional Location

Figure 1



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0 2,000 Feet

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Project Vicinity (USGS Topography)

Figure 2

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Project Vicinity (Aerial Photograph)

Figure 3

"It is intended for this definition to differentiate for the purposes of delineating wetlands, between naturally occurring wetlands and wetlands intentionally created by human actions, from areas with wetlands characteristics unintentionally resulting from human activities in historically non-wetland areas. With the exception of wetlands created for the purpose of providing wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating wetland characteristics, which are artificially created are not considered wetlands by this definition. Taking into account regional precipitation cycles, all adopted scientific, regulator, and technological information available from the State and Federal resource agencies shall be used for guidance on the identification of hydrophytic vegetation, hydric soils and wetland hydrology."

The City's Land Development Code Biology Guidelines (City of San Diego [City] 2018) describe wetlands as follows:

"Wetlands support many of the species included in the MSCP (i.e., Covered Species). The definition of wetlands in ESL is intended to differentiate uplands (terrestrial areas) from wetlands, and furthermore to differentiate naturally occurring wetland areas from those created by human activities. Except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Game. For the purposes of the ESL, artificially created lakes such as Lake Hodges, artificially channeled floodways such as the Carmel Valley Restoration and Enhancement Project, and previously dredged tidal areas such as Mission Bay should be considered wetlands under ESL. The following provides guidance for defining wetlands regulated by the City of San Diego under the Land Development Code.

"Naturally occurring wetland vegetation communities are typically characteristic of wetland areas. Examples of wetland vegetation communities include saltmarsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodland, riparian scrub, and vernal pools. Common to all wetland vegetation communities is the predominance of hydrophytic plant species (plants adapted for life in anaerobic soils). Many references are available to help identify and classify wetland vegetation communities; Holland (1986), revised Holland (Oberbauer 2008), Cowardin et al. (1979), and Sawyer and Keeler-Wolf ([1995]), and Zedler 1987. The U.S. Army Corps of Engineers Wetland Delineation Manual ([Environmental Laboratory] 1987) provides technical information on hydrophytic species.

"Problem areas can occur when delineating wetlands due to previous human activities or naturally occurring events. Areas lacking naturally occurring wetland vegetation communities are still considered wetlands if hydric soil or wetland hydrology is present and past human activities have occurred to remove the historic vegetation (e.g., agricultural grading in floodways, dirt roads bisecting vernal pools, channelized streambeds), or catastrophic or recurring natural events preclude the establishment of wetland vegetation (e.g., areas of scour within streambeds, coastal mudflats and salt pannes that are unvegetated due to tidal duration). The U.S. Army Corps of Engineers Wetland Delineation Manual (1987) provides technical information on hydric soils and wetland hydrology.

"Seasonal drainage patterns that are sufficient enough to etch the landscape (i.e., ephemeral/ intermittent drainages) may not be sufficient enough to support wetland dependent vegetation. These types of drainages would not satisfy the City's wetland definition unless wetland dependent vegetation is either present in the drainage or lacking due to past human activities. Seasonal drainage patterns may

constitute 'waters of the United States' which are regulated by the Army Corps of Engineers and/or the California Department of Fish and Game.

"Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands will be considered a wetland under the ESL and regulated accordingly. The removal of the fill and restoration of the wetland may be required as a condition of project approval.

"Areas that contain wetland vegetation, soils, or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under this definition unless they have been delineated as wetlands by the Army Corps of Engineers, and/or the California Department of Fish and Game. Artificially created wetlands consist of the following: wetland vegetation growing in brow ditches and similar drainage structures outside of natural drainage courses, wastewater treatment ponds, stock watering, desiltation and retention basins, water ponding on landfill surfaces, road ruts created by vehicles and artificially irrigated areas which would revert to uplands if the irrigation ceased. Areas of historic wetlands can be assessed using historic aerial photographs, existing environmental reports (EIRs, biology surveys, etc.), and other collateral material such as soil surveys.

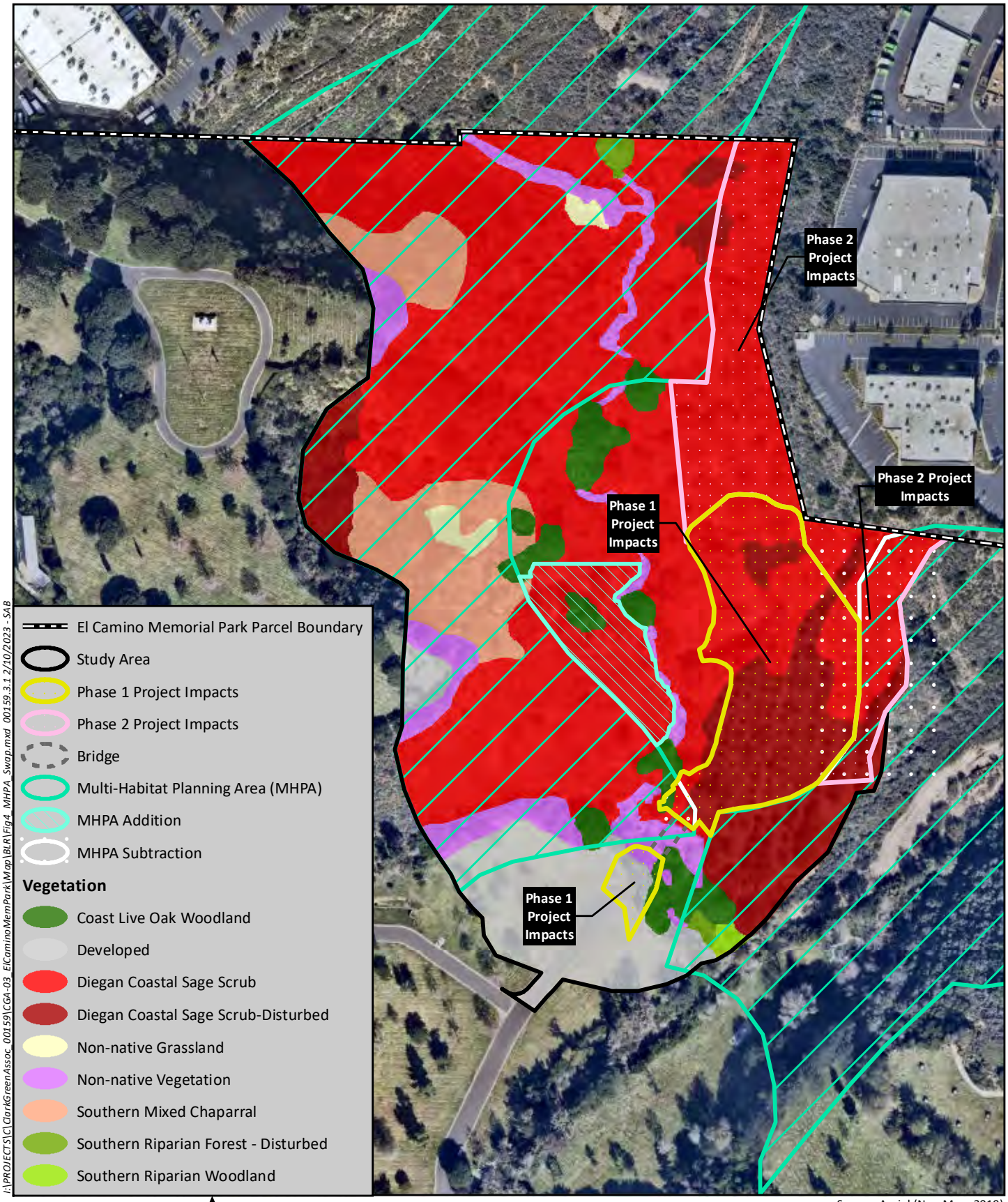
"Some coastal wetlands, vernal pools and riparian areas have been previously mapped. The maps, labeled C-713 and C-740 are available to aid in the identification of wetlands. Additionally, the 1":2000' scale MSCP vegetation maps may also be used as a general reference, as well as the U.S. Fish and Wildlife Service National Wetlands Inventory maps. These maps, available for viewing at the Development Services Department, should not replace site-specific field mapping."

2.7 COASTAL CALIFORNIA GNATCATCHER SURVEYS

Protocol coastal California gnatcatcher (*Polioptila californica californica*) surveys were conducted for the proposed project footprint and surrounding area in 2018 and again in 2021 (HELIX 2018 and 2021). Each survey consisted of three visits that were performed by HELIX biologist Katie Bellon (TE 778195-13) in accordance with the current USFWS protocol (U.S. Fish and Wildlife Service 1997). Survey dates are listed in Table 1.

2.8 CROTCH'S BUMBLE BEE SURVEYS

HELIX conducted focused surveys for Crotch's bumble bee (*Bombus crotchii*) at the request of the City of San Diego (Table 1). The habitat assessment included mapping the vegetation on-site according to the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), determining the species composition within vegetation alliances, and collecting a list of flowering species. HELIX's survey method is based on the California Department of Fish and Wildlife (CDFW) *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* issued June 6, 2023, which calls for an initial Crotch's bumble bee habitat assessment followed by three bumble bee surveys. The three surveys were spaced two to four weeks apart during the Colony Active Period (April through August) and when floral resources were present in 2024. The survey focused on the 5.3-acre impact area and 5.2-acre mitigation areas, meeting the recommended survey rate of no more than three acres per hour, with meandering transects through the remainder of the study area. Bumble bee species observed during the survey were identified but were not captured or handled to avoid potential take. Crotch's bumble bee location and observation details were documented, including photographs. UC-Riverside bumble bee expert Dr. Douglas Yanega confirmed species identification for all the photos taken of bumble bees. HELIX biologist



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Source: Aerial (NearMap, 2019)

Proposed MHPA Boundary Line Adjustment

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Figure 4

Angelica Grunloh conducted the first and second surveys of the project site on May 24 and June 14, 2024. HELIX biologist Alexander Walsh conducted the third survey on July 8, 2024.Survey Limitations.

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the lists of species identified are not necessarily comprehensive accounts of all species that utilize the study area as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special status and have potential to occur in the study area are addressed in Appendix D to this report.

2.9 NOMENCLATURE

Nomenclature follows Baldwin et al. (2012) for plants; Collins and Taggart (2006) for reptiles, American Ornithological Society (2019) for birds, Baker et al. (2003) for mammals, and Holland (1986) and Oberbauer (2008) for vegetation communities. Plant species status is taken from the California Native Plant Society (CNPS; 2020). Animal species status is from CDFW (2019a and b). Soils information was taken from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (2005).

3.0 RESULTS

3.1 REGIONAL CONTEXT

The site is within the boundary of the City's MSCP Subarea Plan, and a small portion of the impact area is within the MHPA. A proposed boundary line adjustment would remove lands within the proposed impact footprint from the MHPA, in exchange for lands outside of the impact footprint (Figure 4, *Proposed MHPA Boundary Line Adjustment*). The proposed boundary line adjustment includes an addition to the north and west of the impact area and a subtraction within the project footprint at the southwestern tip of Phase 1 and within Phase 2 to the east of the Phase 1 project area. This is discussed in greater detail in Section 5.1, below. Following the boundary line adjustment, the project would be adjacent to the MHPA. The site is located outside the Coastal Overlay Zone and is not within any lands identified as critical habitat by the USFWS.

3.2 GENERAL LAND USES

The study area consists primarily of undeveloped lands supporting native and naturalized habitats, a portion of which appears to have been an olive orchard that has not been maintained in several years. The existing El Camino Memorial Park cemetery is located to the west and south of and partially overlaps the study area. The remainder of the project and surrounding lands are undeveloped except to the northeast, which is light industrial. The former orchard and undeveloped lands are zoned for agricultural-residential land use.

3.3 DISTURBANCE

It appears from historic aerial photos that much of the proposed impact footprint was used as an orchard since at least 1953, the first aerial photo available from HistoricAerials.com. Olive trees (*Olea europaea*) are still present; however, some native habitat has recovered in this area, which is characterized by Diegan coastal sage scrub with patches of ashy spike-moss (*Selaginella cinerascens*). The southern end of the study area occurs within the current El Camino Memorial Park.

3.4 TOPOGRAPHY AND SOILS

Elevations in the study area range from approximately 195 feet above mean sea level (amsl) just north of the proposed bridge to 285 feet amsl in the northeastern corner. Four soil types have been mapped within the project site: Olivenhain cobbly loam, 30 to 50 percent slopes; Huerhuero loam, 15 to 30 percent slopes, eroded; Redding-Urban land complex, 9 to 30 percent slopes; and Riverwash (USDA 2005; Figure 5, *Soils*).

3.5 VEGETATION COMMUNITIES/HABITAT TYPES

A total of eight vegetation communities or land use types occur in the study area: southern riparian forest (disturbed), southern riparian woodland, coast live oak woodland, Diegan coastal sage scrub (including disturbed), southern mixed chaparral, non-native grassland, non-native vegetation, and developed lands (Table 2, *Existing Vegetation Communities/Land Use Types*; Figure 6, *Vegetation and Jurisdictional Features*). Six of these are considered sensitive habitats requiring mitigation for impacts (southern riparian forest [disturbed], southern riparian woodland, coast live oak woodland, Diegan coastal sage scrub [including disturbed], southern mixed chaparral, and non-native grassland). The communities/habitat types are presented in Table 2 in order by MSCP Tier.

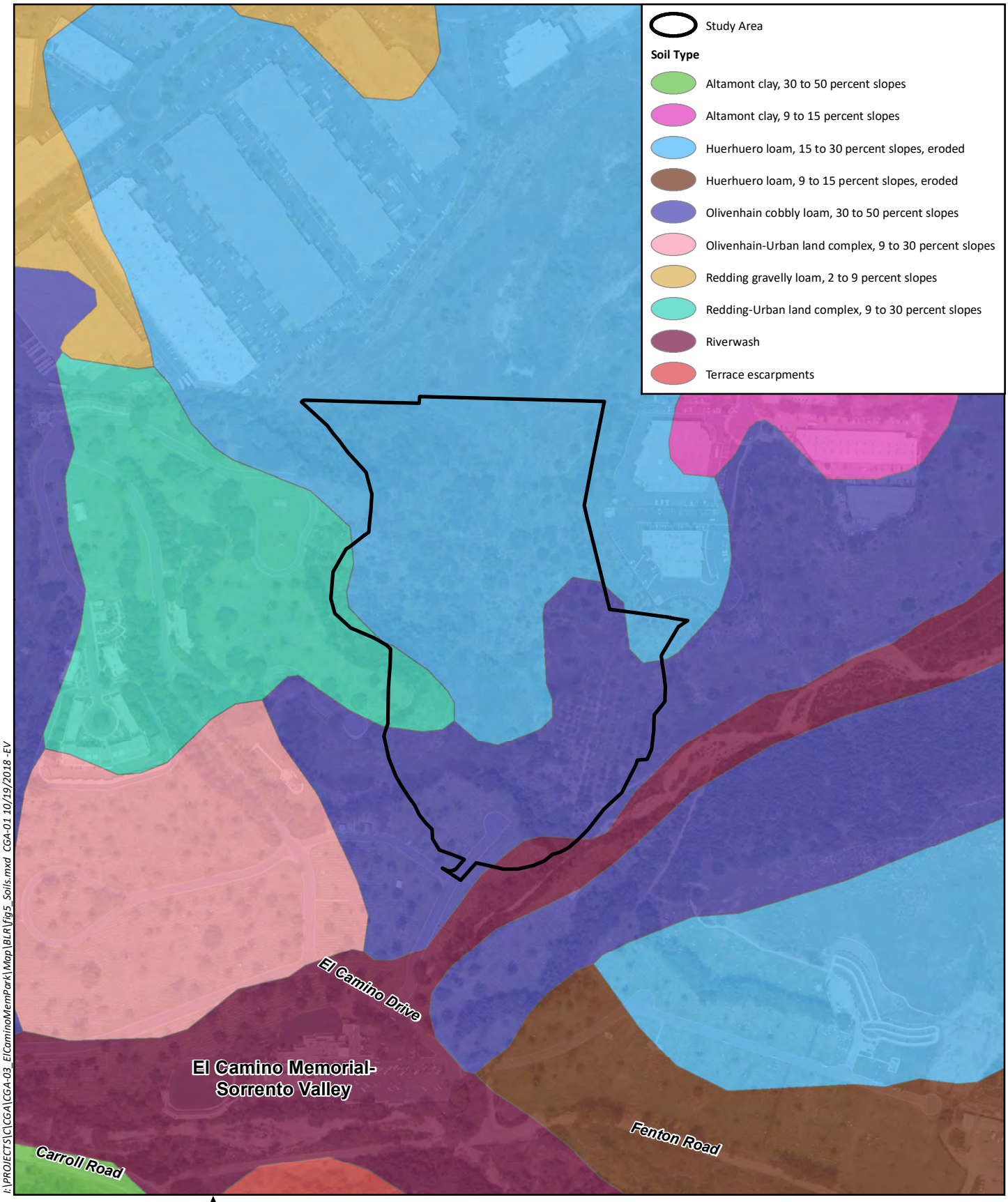
Table 2
EXISTING VEGETATION COMMUNITIES/LAND USE TYPES

Multiple Species Conservation Program (MSCP) Tier[1]	Vegetation Community/Land Use Type	Study Area Acreage[2]	Project Footprint Acreage[2]		
			Phase 1	Phase 2	Entire Project
Wetlands					
N/A	Southern Riparian Forest (disturbed phase)	0.10	--	--	--
N/A	Southern Riparian Woodland	0.05	--	--	--
	Wetlands Subtotal	**0.15**	--	--	**--**
Uplands					
I	Coast Live Oak Woodland	1.0	<0.1	--	<0.1
II	Diegan Coastal Sage Scrub (including disturbed phase)	16.9	2.5	2.7	5.2
IIIA	Southern Mixed Chaparral	1.8	--	--	--
IIIB	Non-native Grassland	0.2	--	--	--
IV	Non-native Vegetation	1.4	<0.1	--	<0.1
IV	Developed Land	1.9	0.1	--	0.1
	Uplands Subtotal	**23.2**	**2.6**	**2.7**	**5.3**
	TOTAL	**23.4**	**2.6**	**2.7**	**5.3**

[1] Tiers refer to City MSCP Subarea Plan habitat classification system.
[2] Habitat acreage rounded to the nearest 0.1 acre for uplands and 0.01 acre for wetlands. Totals reflect rounding.

3.5.1 Southern Riparian Woodlands and Forests

Southern riparian woodlands and forests are composed of winter-deciduous trees that require water near the soil surface. Willows (*Salix* spp.), cottonwood (*Populus* sp.), and western sycamore (*Platanus racemosa*) form a dense medium height woodland or forest in moist canyons and drainage bottoms. Associated understory species include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica* ssp. *holosericea*), and wild grape (*Vitis girdiana*; Beauchamp 1986). The differences between woodlands and



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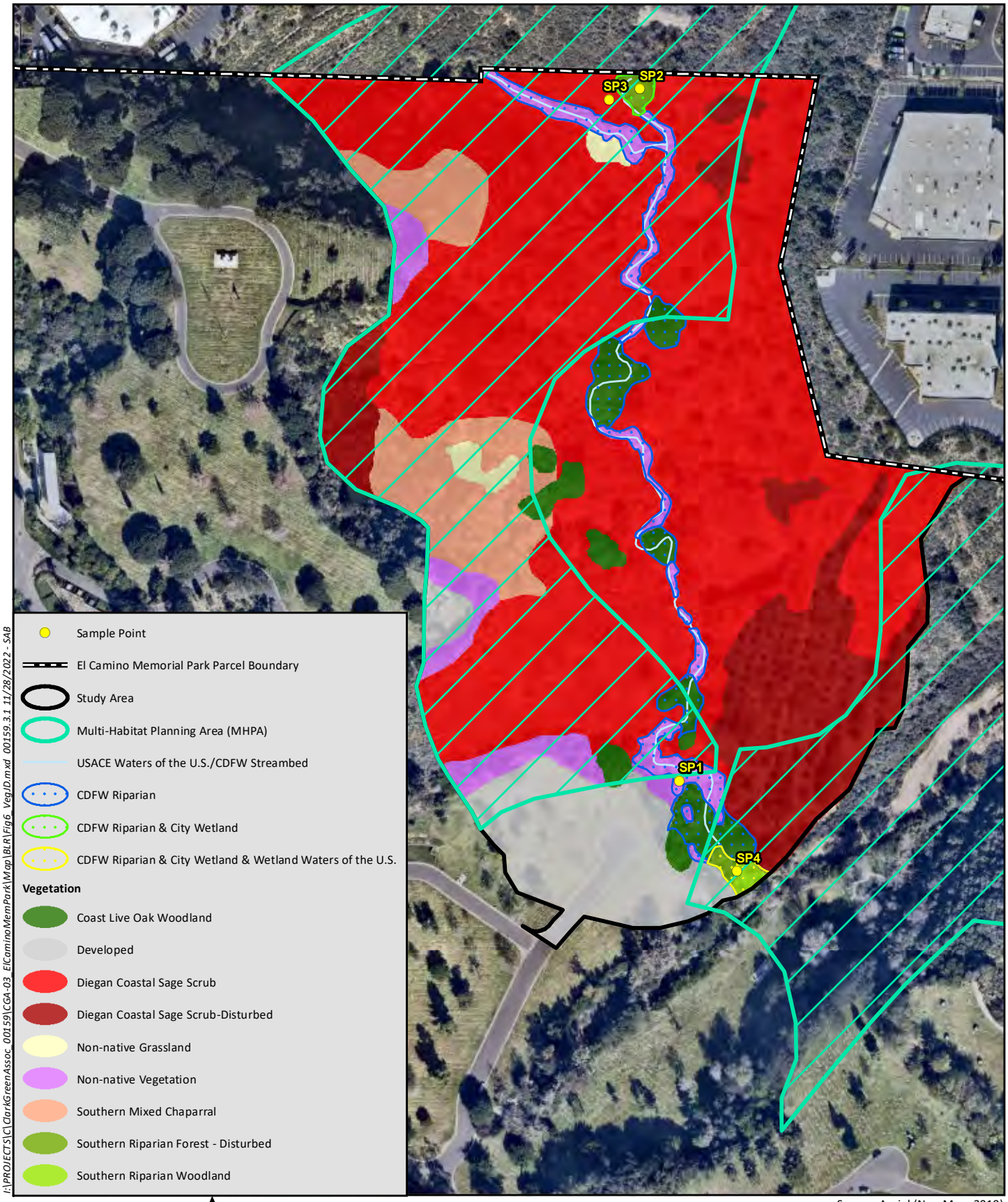
Soils

Figure 5



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Source: Aerial (NearMap, 2019)

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Vegetation and Jurisdictional Features

Figure 6

forests are physiognomic rather than compositional. Woodlands have less canopy cover than forests. In forests, the canopies of individual tree species do overlap so that a canopy cover exceeding 100 percent may occur in the upper tree stratum. In woodlands, there may be large canopy gaps within the upper tree stratum. Two stands of these habitats totaling approximately 0.15 acre occur in the northern and southern ends of the unnamed tributary to Carroll Canyon Creek within the study area (Figure 6). This habitat does not occur within the project footprint. On-site, these habitats are dominated by red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), and pampas grass (*Cortaderia selloana*).

3.5.2 Coast Live Oak Woodland

Coast live oak woodland is an open to dense evergreen woodland or forest community, dominated by coast live oak (*Quercus agrifolia*) that may reach a height of 35 to 80 feet. The shrub layer typically consists of toyon (*Heteromeles arbutifolia*), Mexican elderberry (*Sambucus nigra* ssp. *caerulea*), spreading snowberry (*Symphoricarpos mollis*), fuchsia-flowered gooseberry (*Ribes speciosum*), and poison oak (*Toxicodendron diversilobum*). A dense herbaceous understory is dominated by miner's lettuce (*Claytonia perfoliata* var. *perfoliata*) and chickweed (*Stellaria media*). Approximately one acre of coast live oak woodland occurs within the study area; less than 0.1 acre of which is within the project footprint (Figure 6). On-site, this habitat is dominated by coast live oak, with an understory of shrubs such as lemonadeberry (*Rhus integrifolia*) and poison oak, and non-native grasses such as ripgut grass (*Bromus diandrus*).

3.5.3 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is the widespread coastal sage scrub in coastal southern California, typically occupying xeric sites characterized by shallow soils. Approximately 16.9 acres of Diegan coastal sage scrub occur within the study area. A total of 5.2 acres of Diegan coastal scrub is within the project footprint. On-site, this habitat is dominated by California sagebrush (*Artemisia californica*), lemonadeberry, and black sage. Patches of ashy spike-moss are present within this habitat. The disturbed area along the central portion of the study area has olive trees, some of which occur in rows. The western disturbed area is dominated by lemonadeberry and pampas grass. The northern disturbed patches have more bare ground and foxtail chess compared to the surrounding habitat but do support decumbent goldenbush (*Isocoma menziesii* spp. *decumbens*).

3.5.4 Southern Mixed Chaparral

Southern mixed chaparral is composed of broad-leaved sclerophyllous shrubs that can reach six to 10 feet in height and form dense often nearly impenetrable stands with poorly developed understories. In this mixed chaparral, the shrubs are generally tall and deep rooted, with a well-developed soil litter layer, high canopy coverage, low light levels within the canopy, and lower soil temperatures (Keeley and Keeley 1988). This vegetation community occurs on dry, rocky, often steep north-facing slopes with little soil. As conditions become more mesic, broad-leaved sclerophyllous shrubs that resprout from underground root crowns become dominant. Depending upon relative proximity to the coast, southern mixed chaparral is dominated by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), wart-stemmed ceanothus (*Ceanothus verrucosus*), Ramona lilac (*Ceanothus tomentosus*), white-stem wild-lilac (*Ceanothus leucodermis*), big-berry manzanita (*Arctostaphylos glauca*), and Nuttall's scrub oak (*Quercus dumosa*).

When classifying the chaparral that occurs on-site, southern maritime chaparral was also considered as a potential vegetation classification. Southern maritime chaparral is restricted to the weathered sands within the coastal fog belt in San Diego County from La Jolla to Carlsbad with some scattered patches to the south (Holland 1986, Oberbauer 2008). This low, fairly open chaparral is typically dominated by wart-stemmed ceanothus and thick-leaved Eastwood's manzanita (*Arctostaphylos glandulosa* ssp.). Additional species include mission manzanita, chamise, Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), and summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*). The Biology Guidelines also list Orcutt's spineflower (*Chorizanthe orcuttiana*), sea dahlia (*Leptosyne maritima*), California aster (*Corethrogyne filaginifolia*), short-leaved dudleya (*Dudleya blochmaniae* ssp. *brevifolia*), Torrey pine (*Pinus torreyana*), Nuttall's scrub oak, and Encinitas baccharis (*Baccharis vanessae*) as indicator species (City 2018).

After considering both alternatives, the chaparral on-site was determined to be southern mixed chaparral for the following reasons:

- It is tall, densely vegetated chaparral rather than a low- to medium-height relatively open chaparral growing on sandstone soils;
- It is dominated by a mix of characteristic southern mixed chaparral species, including lemonadeberry, toyon (*Heteromeles arbutifolia*), black sage (*Salvia mellifera*), mission manzanita, and scrub oak (*Quercus berberidifolia*).
- No maritime chaparral indicator species are present in this area (e.g., Del Mar manzanita, bushrue (*Cneoridium dumosum*), wart-stemmed ceanothus, Nuttall's scrub oak, sea dahlia, Encinitas baccharis, etc.).
- The site is 4.2 miles from the ocean, near the outer limit of influence of the coastal fog belt, and the habitat composition of the chaparral is not indicative of fog-influenced maritime chaparral. Southern maritime chaparral is characterized by several endemic shrubs that are not present in the chaparral on-site.

Approximately 1.8 acres of southern mixed chaparral occurs along northeast-facing slopes in the central western portion of the site, none of which is within the project footprint (Figure 6).

3.5.5 Non-native Grassland

Non-native grassland is characterized by a sparse to dense cover of annual grasses and is often associated with numerous species of showy-flowered, native, annual forbs. Approximately 0.2 acre of non-native grassland occurs in the central western portion of the study area, none of which is within the project footprint (Figure 6). On-site, this habitat is dominated by foxtail chess (*Bromus madritensis*) and ripgut grass.

3.5.6 Non-native Vegetation

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping. Approximately 1.4 acres of non-native vegetation occur along the edges of the existing cemetery and along the unnamed tributary to Carroll Canyon Creek, of which less than 0.1 acre is within the project footprint

(Figure 6). Around the cemetery, non-native vegetation includes eucalyptus (*Eucalyptus* sp.), acacia, pine tree (*Pinus* sp.), Mexican fan palm (*Washingtonia robusta*), and sweetgum (*Liquidambar styraciflua*). The unnamed tributary to Carroll Canyon Creek is dominated by pampas grass.

3.5.7 Developed

Developed land on-site consists of the existing El Camino Memorial Cemetery, which is 1.9 acres along the south and west edges of the study area, of which 0.1 acre is within the project footprint (Figure 6).

3.6 FLORA

HELIX identified a total of 143 plant species in the study area, of which 32 (22 percent) are non-native species (Appendix A).

3.7 FAUNA

A total of 52 animal species were observed or otherwise detected in the study area during the biological surveys conducted on-site, including 15 invertebrate, two reptile, 32 bird, and five mammal species (Appendix B).

3.8 SENSITIVE VEGETATION COMMUNITIES/HABITAT TYPES

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. The City's ESL and Biology Guidelines (City 2018) define sensitive biological resources as: lands included in the MHPA; wetlands; Tier IIIB and higher vegetation types; lands supporting species or subspecies listed as rare, endangered, or threatened; and lands containing narrow endemic species, vernal pool species, or covered species as listed in the City's Biology Guidelines. Impacts to sensitive habitat types require compensatory mitigation.

3.9 SPECIAL STATUS SPECIES

3.9.1 Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the City (e.g., MSCP narrow endemic species) and may also be included in the CNPS Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

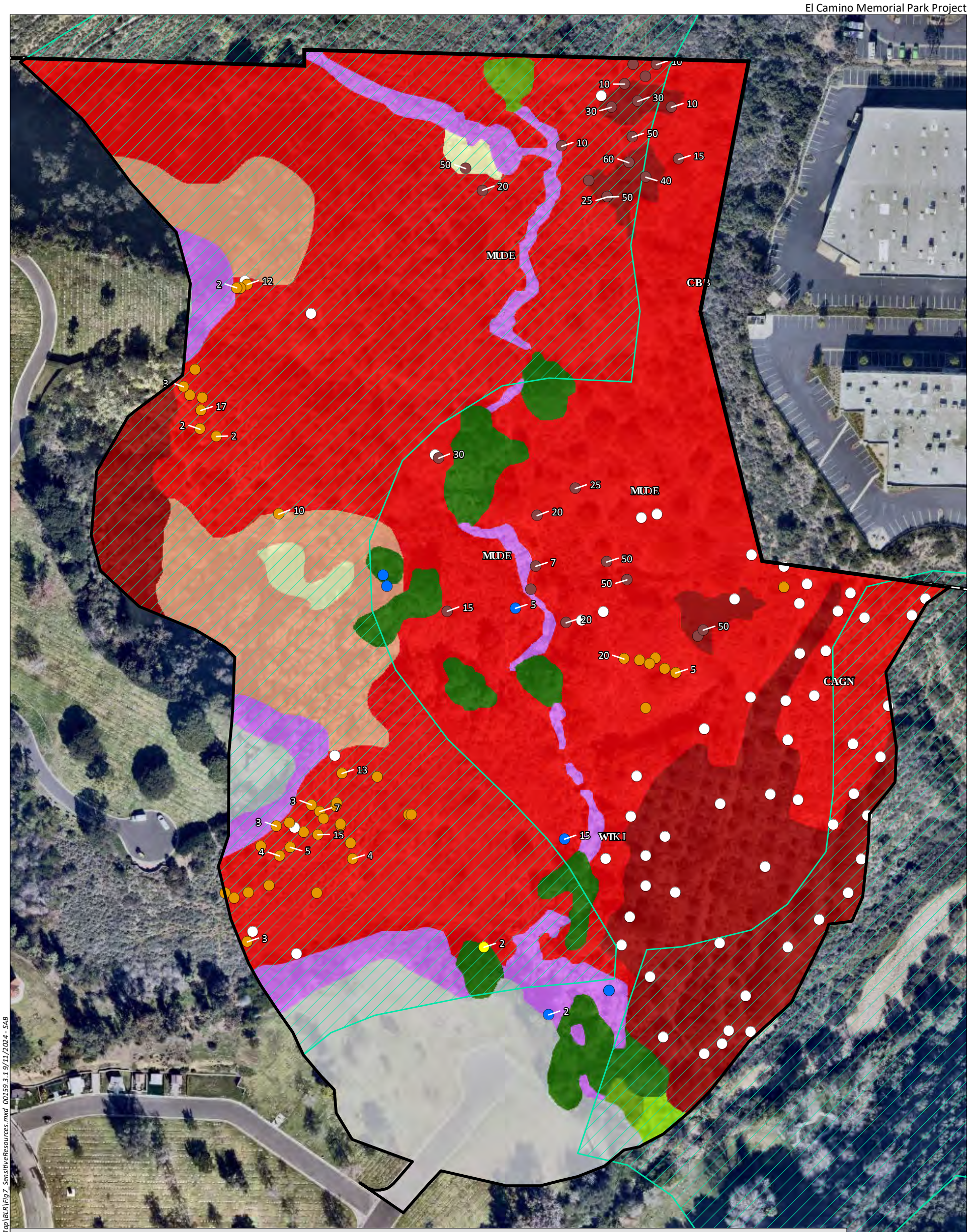
Five special status plant species were observed within the study area (Figure 7, *Sensitive Species*): San Diego sagewort (*Artemisia palmeri*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), San Diego barrel cactus (*Ferocactus viridescens*), decumbent goldenbush, and ashy spike-moss (*Selaginella cinerascens*). Of these species, San Diego sagewort, San Diego barrel cactus, decumbent goldenbush, and ashy spike-moss occur within the project footprint.

San Diego sagewort (*Artemisia palmeri*)
Listing: --/--; California Rare Plant Rank (CRPR) 4.2
Distribution: Coastal San Diego County; Baja California, Mexico.
Habitat: Stream courses, often within coastal sage scrub and southern mixed chaparral.
Status on site: Twenty-five individuals were observed within Diegan coastal sage scrub, southern mixed chaparral, and coast live oak woodland along the west side of the study area and within non-native vegetation along the edges of an unnamed tributary to Carroll Canyon Creek. Of these, 15 are located within the area proposed to be transferred to the MHPA as part of a boundary line adjustment, two occur within the Phase 1 project footprint, and eight occur within the study area outside of the MHPA, mitigation, and impact areas (Figure 8, *Sensitive Species/Impacts*).

Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
Listing: --/--; CRPR 1B.2
Distribution: Orange, Riverside, and San Diego counties south into Baja California, Mexico.
Habitat: Mesic north-facing slopes in southern mixed chaparral are the preferred habitat of this large, showy shrub. Rugged steep drainages seem to be a preferred location for isolated shrubs.
Status on site: Two individuals were observed bordering the existing cemetery, in a patch of coast live oak woodland adjacent to Diegan coastal sage scrub, obscured by a native vine. These are located within the MHPA within the area proposed for mitigation (Figure 8). None occur within the project footprint.

San Diego barrel cactus (*Ferocactus viridescens*)
Listing: --/--; CRPR 2B.1; City MCSP Covered
Distribution: San Diego County; Baja California, Mexico.
Habitat: Optimal habitat for this cactus appears to be Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Occasionally found on vernal pool periphery and mima mound topography in Otay Mesa.
Status on site: San Diego barrel cactus was observed in three general areas within Diegan coastal sage scrub in the study area: in the northwest corner, in the southwest corner, and in the central portion of the study area, just east of the unnamed tributary to Carroll Canyon Creek. A total of 202 individuals occur within the study area: 132 within the MHPA in the proposed mitigation area, 15 within the MHPA outside of the proposed mitigation area, 34 within the Phase 1 project footprint, one within the Phase 2 project footprint, and 20 within the adjacent study area (Figure 8).
Area Specific Management Directives: Area specific management directives must include measures to protect this species from edge effects and unauthorized collection; directive should also include appropriate fire management/control practices to protect against a too frequent fire cycle.

Decumbent goldenbush (*Isocoma menziesii* spp. *decumbens*)
Listing: --/--; CRPR 1B.2
Distribution: Orange and San Diego counties; Baja California, Mexico; San Clemente and Santa Catalina islands.
Habitat: Presumed to utilize coastal sage scrub habitat intermixed with grassland and is more partial to clay soils than other closely related varieties.
Status on site: Clusters of individuals were observed in open Diegan coastal sage scrub in the northern and central portions of the study area. A total of 699 individuals occur within the rare plant survey area: 101 within the Phase 1 project footprint, 115 within the Phase 2 project footprint, 365 within the MHPA outside of the mitigation boundary, and 118 outside of the MHPA, mitigation, and impact areas.



El Camino Memorial Park Parcel Boundary
Study Area
Multi-Habitat Planning Area (MHPA)

Vegetation

Coast Live Oak Woodland
Developed
Diegan Coastal Sage Scrub
Diegan Coastal Sage Scrub-Disturbed
Non-native Grassland
Non-native Vegetation
Southern Mixed Chaparral
Southern Riparian Forest - Disturbed
Southern Riparian Woodland

Sensitive Species

Ashy Spike-moss (*Selaginella cinerascens*)
Decumbent Goldenbush (*Isocoma menziesii*var.*decumbens*)
San Diego Barrel Cactus (*Ferocactus viridescens*)
San Diego Sagewort (*Artemisia palmeri*)
Summer Holly (*Comarostaphylis diversifolia* ssp.*diversifolia*)
CBB Crotch's Bumble Bee (*Bombus crotchii*)
MUDE Mule Deer (*Odocoileus hemionus*)
WIKI White-tailed Kite (*Elanus leucurus*)
CAGN Coastal California Gnatcatcher (*Polioptila californica californica*)

0 120 Feet

Source: Aerial (NearMap, 2019)

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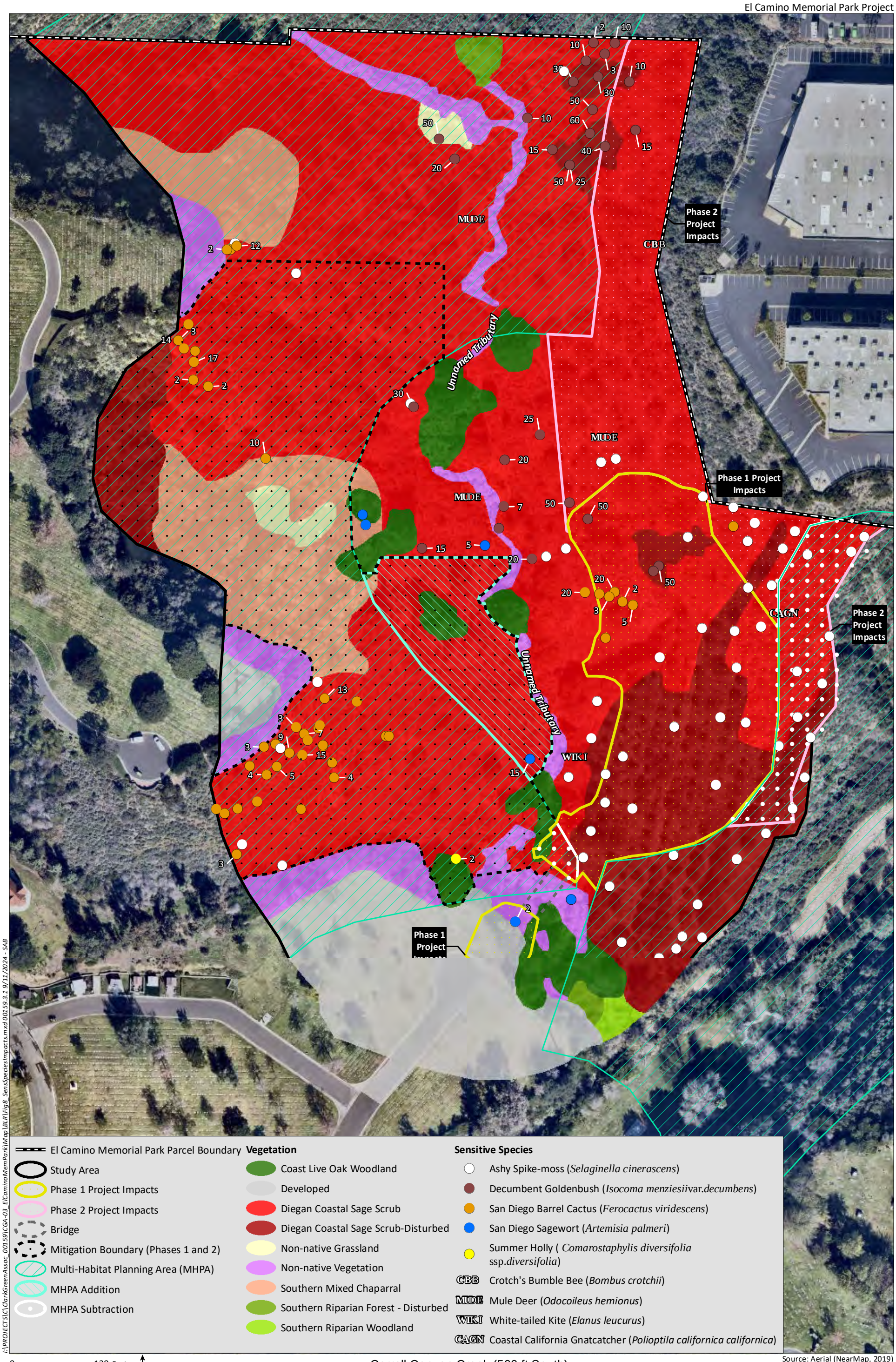
HELIX Environmental Planning

Sensitive Species

Figure 7



Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Sensitive Species/Impacts

Figure 8

Ashy spike-moss (*Selaginella cinerascens*)
Listing: --/--; CRPR 4.1
Distribution: Orange and San Diego counties; northwestern Baja California, Mexico.
Habitat: Flat mesas in coastal sage scrub and chaparral.
Status on site: Patches of this species occur within Diegan coastal sage scrub within the study area, occurring within the proposed project area (both phases), MHPA, mitigation area, and study area outside of these areas. While individual plants could not be counted, this species was observed more densely within an approximately 4.8-acre area in the eastern side of the study area, including portions of the project footprint, as well as scattered within Diegan coastal sage scrub in the southwest, northwest, northeast, and southeast portions of the study area.

A total of 45 special status plant species known from within three miles of the site, or included on the City's MSCP Narrow Endemic list, were analyzed for their potential to occur within the study area (Appendix D). Aside from the five species observed on-site, only one additional special status plant species was considered to have a high potential to occur on-site: Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*). Potential is considered high for this species because suitable habitat is present, the species is known from within one mile of the site, and dead pepper-grass observed on-site during surveys could not be identified to species. The remaining plant species analyzed are not anticipated to occur on-site due to lack of appropriate soils, habitat, elevation, and/or known occurrences in the vicinity.

Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
Listing: --/--; CRPR 4.3
Distribution: Southwestern California; Channel Islands.
Habitat: This annual herb grows in openings in chaparral and sage scrub at the coastal and foothill elevations. Typically observed in relatively dry, exposed locales rather than beneath a shrub canopy or along creeks.
Status on site: Dead standing individuals, which could only be identified to genus, were observed scattered within Diegan coastal sage scrub within the study area. The nearest recorded occurrence of Robinson's pepper-grass is approximately 0.8 mile to the south.

3.9.2 Special Status Animal Species

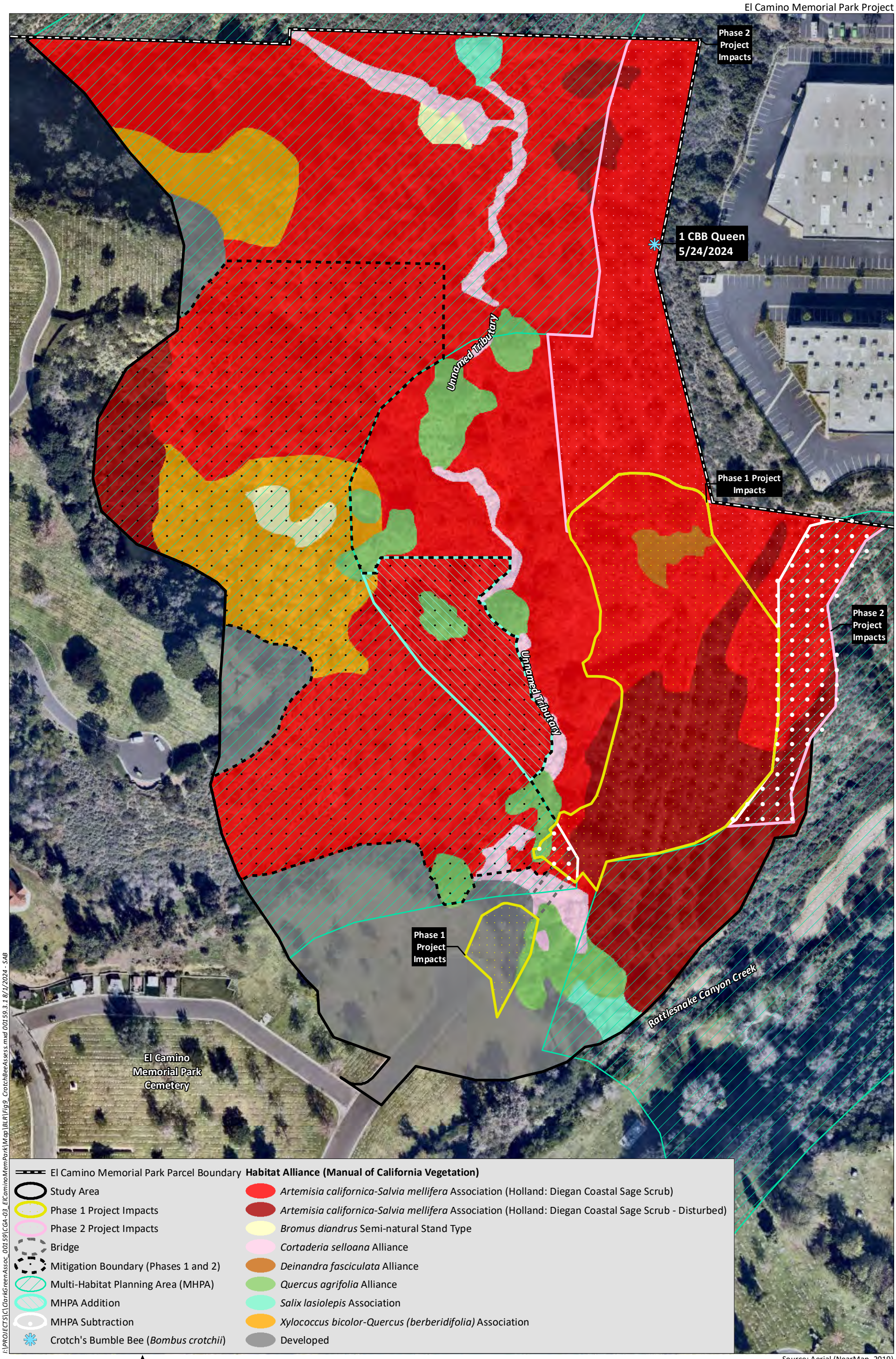
Special status animal species include those that have been afforded special status and/or recognition by the USFWS, CDFW, and/or the City. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Four special status species were observed on-site in surveys to date: Crotch's bumble bee, white-tailed kite (*Elanus leucurus*), coastal California gnatcatcher, and mule deer (*Odocoileus hemionus*). Also, the San Diego desert woodrat (*Neotoma lepida intermedia*) is presumed present, given observations of stick nests. Of these species, Crotch's bumble bee, coastal California gnatcatcher, and mule deer were observed within the project footprint.

Crotch's bumble bee (*Bombus crotchii*)
Status: --/State Candidate Endangered
Distribution: Southwestern California from the Central Valley south to the U.S./Mexico border.
Habitat: Inhabits open grassland and scrub habitats near the coast. Primarily nests underground, generally in abandoned rodent nests. Forages on a wide variety of flowers, but a short tongue renders it best suited to open flowers with short corollas. Most commonly observed on flowering species in the Fabaceae, Asteraceae, and Lamiaceae families. Occurrence has also been linked to habitats containing *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, Salvia, Antirrhinum, Clarkia, Dendromecon, Eschscholzia, Eriogonum, Cirsium, Acmispon, Euthamia, Ehrendorferia,* and *Trichostema* genera.
Status on site: One female Crotch's bumble bee was observed on black sage (*Salvia mellifera*) within the project area during the first of three focused surveys for the species (Figure 9, *Crotch's Bumble Bee Habitat Assessment and Survey Results*). No nests were observed. The second and third surveys were negative. This individual was suspected to be a queen, based on its size in photographs relative to adjacent flowers. Suitable coastal sage scrub habitat and a variety of food sources to support this species are present in both the impact and mitigation areas. Also, California ground squirrel (*Otospermophilus beecheyi*) was observed on-site, with the potential to make holes for nesting. Crotch's bumble bee survey results are provided in Appendix E.

White-tailed kite (*Elanus leucurus*)
Status: --/Fully Protected
Distribution: Primarily occurs throughout coastal slopes of San Diego County.
Habitat(s): Riparian woodlands and oak or sycamore groves adjacent to grassland.
Status on site: Observed flying overhead between the project footprint and proposed mitigation area during coastal California gnatcatcher surveys.

Coastal California gnatcatcher (*Polioptila californica californica*)
Status: FT/SSC; MSCP Covered
Distribution: In San Diego County, occurs throughout coastal lowlands.
Habitat(s): Coastal sage scrub.
Status on site: One pair of coastal California gnatcatchers with at least one fledgling was detected during protocol surveys conducted during the breeding season in 2018 (HELIX 2018; Appendix F). Species was detected off-site within the Diegan coastal sage scrub, approximately 450 feet east of the study area on a single day of the protocol survey. One pair of coastal California gnatcatchers was detected during the 2021 protocol survey effort, within the Diegan coastal sage scrub in Phase 2 of the project footprint, within the proposed MHPA subtraction area (HELIX 2021; Appendix G). The study area is considered occupied by coastal California gnatcatcher because coastal California gnatcatchers were observed foraging within the study area during the 2021 protocol survey. Coastal California gnatcatchers were seen in two different locations between 2018 and 2021 and can be expected to move around the area, including within the MHPA addition area, from year to year.
Area Specific Management Directives: Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.



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HELIX Environmental Planning

Crotch's Bumble Bee Habitat Assessment and Survey Results

Figure 9

San Diego desert woodrat (*Neotoma lepida intermedia*)
Listing: --/SSC
Distribution: Coastal slope of southern California from San Luis Obispo County south into coastal northwestern Baja California, Mexico.
Habitat: Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca.
Status on site: Presumed present from observations of woodrat (*Neotoma* sp.) stick nests. Not possible to identify to subspecies without trapping surveys.

Mule deer (*Odocoileus hemionus*)
Listing: --/--; MSCP Covered
Distribution: Southern Riverside County (Tahquitz Valley), south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico.
Habitat: Coastal sage scrub, riparian and montane forests, chaparral, grasslands, croplands, and open areas if there is at least some scrub cover present. Crepuscular activity and movements are along routes that provide the greatest amount of protective cover.
Status on site: Observed in the study area, in Phase 2 and to the west of the project footprint, during surveys.

A total of 22 special status animal species known from within three miles of the site were analyzed for their potential to occur within the study area (Appendix D). Crotch's bumble bee (*Bombus crotchii*), which is discussed above, was included in this analysis due to its recent listing despite not being recorded within three miles of the site. Seven special status animal species have a high potential to occur: orange-throated whiptail (*Aspidoscelis hyperythra*), coast horned lizard (*Phrynosoma blainvillii*), Cooper's hawk (*Accipiter cooperii*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), western red bat (*Lasiurus blossevillii*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

Orange-throated whiptail (*Aspidoscelis hyperythra*)
Status: --/WL, MSCP Covered
Distribution: Southern Orange County and southern San Bernardino County, south through Baja California.
Habitat: Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (*Reticulitermes* sp.).
Status on site: Suitable coastal sage scrub, chaparral, and woodland habitat present. Nearest known occurrence within the El Camino Memorial Park.
Area Specific Management Directives: Area specific management directives must address edge effects.

Coast horned lizard (*Phrynosoma blainvillii*)
Status: --/SSC, MSCP Covered
Distribution: Northern California though coastal southern California into northern Baja California.
Habitat: Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* sp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).
Status on site: Suitable coastal sage scrub, chaparral, and woodland habitat present. Nearest known occurrence within the El Camino Memorial Park.

Area Specific Management Directives: Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.

Cooper's hawk (*Accipiter cooperii*)
Status: --/WL; MSCP Covered
Distribution: In California, the species breeds from Siskiyou County south to San Diego County and east to the Owens Valley at elevations below 9,000 feet.
Habitat(s): Inhabits forests, riparian areas, and more recently suburban and urban areas nesting within dense woodlands and forests and isolated trees in open areas.
Status on site: Suitable foraging habitat present. Species has been observed foraging near the project footprint but is not expected to nest in the area.
Area Specific Management Directives: In the design of future projects within the Metro-Lakeside-Jamul segment, design of preserve areas shall conserve patches of oak woodland and oak riparian forest of adequate size for nesting and foraging habitat. Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
Status: --/WL; MSCP Covered
Distribution: Observed throughout coastal lowlands and foothills of San Diego County.
Habitat(s): Coastal sage scrub and open chaparral as well as shrubby grasslands.
Status on site: Suitable habitat present.
Area Specific Management Directives: Area specific management directives must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.

Bell's sage sparrow (*Artemisiospiza belli belli*)
Status: BCC/WL
Distribution: Patchy distribution throughout San Diego County, which often shifts to include partially recovered burned areas. Populations are often clumped, but species is no longer observed in most coastal areas.
Habitat(s): Chaparral and sage scrub with modest leaf-litter on the ground (e.g., after a fire or in gabbro-based soil areas).
Status on site: Suitable habitat present.

Western red bat (*Lasiurus blossevillii*)
Listing: --/SSC
Distribution: Western California south to Mexico.
Habitat: Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. Possible association with intact riparian habitat (particularly willows, cottonwoods, oaks, walnuts, and sycamores).
Status on site: May roost in oak trees along riparian corridor.

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
Listing: --/SSC
Distribution: Southern Santa Barbara County, south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Localities on the eastern edge of its range include Jacumba and San Felipe Valley in San Diego County.
Habitat: Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.
Status on site: Suitable habitat present.

3.9.3 Nesting Birds

Trees and shrubs both within and adjacent to the study area could provide suitable nesting habitat for several bird species known to the region.

3.9.4 Raptor Foraging

Red-tailed hawk and white-tailed kite were observed or detected near the study area during the biological surveys, and additional raptor species may use the site for foraging or could use on-site trees for nesting. These include red-shouldered hawk (*Buteo lineatus*; not listed or MSCP covered) and Cooper's hawk.

3.10 JURISDICTIONAL WATERS AND WETLANDS

An unnamed tributary to Carroll Canyon Creek bisects the study area and supports several potential jurisdictional areas that may be regulated by the USACE, CDFW, RWQCB, and/or City. These areas include southern riparian forest (disturbed), southern riparian woodland, coast live oak woodland, non-native vegetation, and non-wetland waters of the U.S./streambed that occur along this creek (Figure 6).

3.10.1 Federal Jurisdiction

The USACE wetland waters of the U.S. within the study area include disturbed southern riparian forest and southern riparian woodland in the southern end of the unnamed tributary to Carroll Canyon Creek. The riparian habitat within the study area (i.e., coast live oak woodland and non-native vegetation along the stream) does not meet the criteria to be considered USACE wetland; however, the unnamed tributary to Carroll Canyon Creek was determined to be jurisdictional non-wetland waters of the U.S. Federal jurisdictional areas in the study area total 0.26 acre, none of which are within the project footprint, although the proposed clear-span bridge will span over non-wetland waters of the U.S. (Figure 6; Table 3, *Jurisdictional Waters*).

Table 3
JURISDICTIONAL WATERS

Jurisdictional Areas	Acres in Study Area	Acres in Project Footprint
U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB)		
Southern Riparian Forest (disturbed phase)	0.03	0.00
Southern Riparian Woodland	0.05	0.00
Non-wetland Waters of the U.S.	0.18	0.00
USACE/RWQCB TOTAL	**0.26**	**0.00**
California Department of Fish and Wildlife (CDFW)		
Southern Riparian Forest (disturbed phase)	0.10	0.00
Southern Riparian Woodland	0.05	0.00
Coast Live Oak Woodland	0.65	0.03
Non-native Vegetation	0.68	0.00
Non-vegetated Streambed	0.01	0.00
CDFW TOTAL	**1.49**	**0.03**
City of San Diego (City)		
Southern Riparian Forest (disturbed phase)	0.10	0.00
Southern Riparian Woodland	0.05	0.00
CITY TOTAL	**0.15**	**0.00**

3.10.2 California Department of Fish and Wildlife Jurisdiction

The CDFW jurisdictional areas in the study area include 1.48 acres of riparian habitat and 0.01 acre of unvegetated streambed (Figure 6; Table 3). CDFW jurisdictional areas within the project footprint include 0.03 acre of riparian habitat.

3.10.3 Regional Water Quality Control Board Jurisdiction

Areas determined to be waters of the U.S. under the jurisdiction of the USACE were also determined to be waters of the State under the jurisdiction of the RWQCB. No isolated waters of the State were found on the site. No RWQCB jurisdictional habitat occurs within the project footprint, although the proposed clear-span bridge will span over non-wetland waters of the State.

3.10.4 City Environmentally Sensitive Lands Wetlands

City jurisdictional areas in the study area include 0.15 acre of wetland (Figure 6; Table 3). The southern riparian woodland and southern riparian forest on-site were mapped as both CDFW riparian habitat and City wetland because they are both associated with a streambed and dominated by hydrophytic vegetation. City wetlands often coincide with CDFW jurisdictional habitats, but that is not the case for the coast live oak woodland and non-native vegetation in the study area because these areas do not support wetland vegetation, i.e., “naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation” (City 2018). Coast live oak (*Quercus agrifolia*) is an upland species, not a hydrophytic species. The coast live oak woodland on-site is dominated by coast live oak, with an understory of shrubs such as lemonadeberry (*Rhus integrifolia*) and poison oak (*Toxicodendron diversilobum*), and non-native grasses such as ripgut grass (*Bromus diandrus*), none of which are hydrophytic species, and thus was determined not to be a City wetland.

No vernal pools, road pools, or seasonal ponding were observed or detected on-site. The nearest known vernal pools, according to the City Vernal Pool Habitat Conservation Plan Interactive Map, are located at least 1.2 miles away, on Marine Corps Air Station Miramar to the south and east of Camino Santa Fe.

No City wetlands occur within the project footprint.

3.11 HABITAT CONNECTIVITY AND WILDLIFE CORRIDORS

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping-stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance.

The study area occurs along the Rattlesnake Canyon wildlife corridor identified in the Mira Mesa Community Plan (Latitude 33 Planning and Engineering 2011). The Rattlesnake Canyon wildlife corridor runs from northeast to southwest past the east side of the project footprint. The unnamed tributary canyon on the west side of the project footprint is also shown as part of the Rattlesnake Canyon wildlife corridor, but does not provide for regional wildlife movement because it ends surrounded by development north of the study area, as shown on Figure 3.

4.0 APPLICABLE REGULATIONS

This section provides a summary of regulations applicable to the proposed project.

4.1 FEDERAL GOVERNMENT

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the Federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, federal agencies must consult with the USFWS to ensure that any action

they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 generally describes a process of federal interagency consultation and issuance of a biological opinion and incidental take statement when federal actions may adversely affect listed species. Section 10(a) generally describes a process for preparation of a Habitat Conservation Plan and issuance of an incidental take permit. Pursuant to Section 10(a), the City was issued a take permit for their adopted MSCP Subarea Plan.

4.1.2 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season; however, the City does not treat compliance with the MBTA as a mitigation measure under CEQA unless sensitive species are present. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

4.2 STATE OF CALIFORNIA

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) established that it is State policy to conserve, protect, restore, and enhance State endangered species and their habitats. Under State law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. If there is a CESA listing petition for a species that is accepted for consideration by the California Fish and Game Commission, this species becomes a candidate species. While the status of the species is reviewed, candidate species are temporarily afforded the same protections as a state-listed endangered or threatened species. Following review, candidate species will be removed from the list of candidate species and may be added to the list of threatened or endangered species. The CESA authorizes that private entities may “take” plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For State-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for State listed candidate, threatened, and endangered species if specific criteria are met. The City was issued a take permit for their adopted MSCP Subarea Plan pursuant to Section 2081.

4.2.3 California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

4.3 CITY OF SAN DIEGO

4.3.1 Environmentally Sensitive Lands

Impacts to biological resources in the City must comply with the City's environmentally sensitive lands (ESL) Regulations. The purpose of the regulations is to "protect, preserve, and, where damaged restore, the environmentally sensitive lands of San Diego and the viability of the species supported by those lands." Environmentally sensitive lands are defined to include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs, and 100-year floodplains.

The ESL regulations require impacts to wetlands be avoided unless the activities meet specific exemption criteria established in the ordinance. Impacts to City-defined wetlands require approval of deviation findings as required by ESL regulations. Impacts to wetlands must be mitigated in accordance with Section III(B)(1)(a) of the Biology Guidelines (City 2018). The ESL regulations also require that buffers be maintained around all wetlands (as appropriate) to protect their functions and values. Buffer widths may either be increased or decreased as determined on a case-by-case basis, taking into consideration the size and type of project proposed, sensitivity of the wetland resource to detrimental edge effects, topography, specific functions and values of the wetland, as well as the need for transitional upland habitat (City 2018).

In addition to restricting impacts to wetland habitats, the Biology Guidelines also restrict development within the MHPA, including impact avoidance areas around raptor nesting locations (specifically, Cooper's hawk, northern harrier [*Circus cyaneus*], golden eagle [*Aquila chrysaetos*], burrowing owl [*Athene cunicularia*]), and known locations of southern pond turtle (*Clemmys marmorata pallida*), and also requires seasonal restrictions on clearing, grubbing, or grading where development may impact the following bird species: western snowy plover (*Charadrius alexandrinus nivosus*), southwestern willow flycatcher (*Empidonax traillii extimus*), least tern (*Sternula antillarum browni*), San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), least Bell's vireo (*Vireo bellii pusillus*), tricolored blackbird (*Agelaius tricolor*), and coastal California gnatcatcher.

4.3.2 Multiple Species Conservation Program

In July 1997, the USFWS, CDFW, and City adopted the Implementing Agreement for the MSCP. This program allows the incidental take of threatened and endangered species as well as regionally-sensitive species that are conserved by it (covered species). The MSCP designates regional preserves that are

intended to be mostly void of development activities, while allowing development of other areas subject to the requirements of the program. Impacts to biological resources are regulated by the City's ESL regulations.

The City's MSCP Subarea Plan has been prepared to meet the requirements of the California Natural Communities Conservation Planning Act of 1992. This Subarea Plan describes how the City's portion of the MSCP Preserve, the MHPA, will be implemented.

5.0 ANALYSIS OF PROJECT EFFECTS

5.1 MHPA BOUNDARY LINE ADJUSTMENT ANALYSIS

The project footprint overlaps the MHPA; therefore, a proposed boundary line adjustment is illustrated on Figure 4. The boundary line subtraction will occur within the project footprint for Phase 1 of the project, near the bridge crossing. Additionally, the boundary line adjustment includes a subtraction in Phase 2 of the project to the east. The proposed boundary line adjustment would occur prior to implementation of the project.

Adjustments to the MHPA boundary may be made without amending the City's MSCP Subarea plan or the MSCP Plan in cases where the new MHPA boundary preserves an area of equivalent or greater biological value. The MHPA subtraction areas include Diegan coastal sage scrub (0.48 acre), disturbed Diegan coastal sage scrub (0.20 acre), and coast live oak woodland (0.01 acre) (Table 4, *Proposed Subtractions and Additions to the Multi-habitat Planning Area*).

Table 4
PROPOSED SUBTRACTIONS AND ADDITIONS TO THE MULTI-HABITAT PLANNING AREA

Habitat	Tier	Subtraction (acres)	Addition (acres)	Net Gain/(Loss) (acres)
Coast live oak woodland	I	0.01	0.07	0.06
Diegan coastal sage scrub (including disturbed phase)	II	0.68	0.74	0.06
Southern mixed chaparral	IIIA	--	0.01	0.01
	TOTAL	**0.69**	**0.82**	**0.13**

The MHPA addition will occur to the west of the project site, between existing MHPA and the unnamed tributary to Rattlesnake Canyon Creek. It will encompass an area of Diegan coastal sage scrub (0.74 acre), coast live oak woodland (0.07 acre), and southern mixed chaparral (0.01 acre). The MHPA addition area provides more than 1:1 replacement for the subtraction area in total acreage, Diegan coastal sage scrub acreage, and coast live oak woodland acreage, as well as replacing disturbed Diegan coastal sage scrub with higher quality Diegan coastal sage scrub. There would be a net increase in the amount of sensitive habitat within the MHPA as a result of the proposed adjustment, and the proposed addition areas are contiguous with existing similar habitat within the MHPA (Figure 4).

Based on historic imagery of the study area, the proposed MHPA adjustment boundary approximately matches the boundary of a historic olive grove, which is visible as far back as 1953 and still visible in 1997 when the MSCP was adopted. This area which was planted with olive trees will be subtracted because it is of lower quality and has a higher concentration of non-native plant species. It will be

replaced with habitat that was not previously cleared or planted and is more natural. Therefore, the proposed boundary line adjustment would be a benefit to the MHPA design and to the habitat communities the proposed adjustment would encompass.

In order for a boundary line adjustment to be approved, six findings must be made in accordance with Section 5.4.3 of the City's MSCP Subarea Plan (City 1997). These six findings are discussed below.

1. *Effects on significantly and sufficiently conserved habitats (i.e., the exchange maintains or improves the conservation, configuration, or status of significantly and sufficiently conserved habitats, as defined in Section 3.4.2 [of the MSCP Plan]).*

   The proposed boundary line adjustment would result in a net gain of 0.13 acre to the overall MHPA area. Specifically, the proposed boundary adjustment would involve the addition of 0.82 acre of upland habitats, in exchange for the removal of 0.69 acre of uplands. The coastal sage scrub to be removed from the MHPA consists partially of disturbed phase coastal sage scrub that has partially regrown in a previous olive orchard. The 0.74 acre of coastal sage scrub to be added to the MHPA is higher quality because it was not part of the historic olive orchard and supports a higher density of coastal sage scrub species. The MHPA addition area also supports seven times more coast live oak woodland than the MHPA subtraction area. No wetland habitats would be gained or lost. The proposed MHPA boundary results in an overall net gain in functional habitats.

2. *Effects on covered species (i.e., the exchange maintains or increases the conservation of covered species).*

   The 2021 coastal California gnatcatcher survey revealed gnatcatchers within the proposed MHPA subtraction area, while the 2018 survey detected gnatcatchers off-site to the east. These data show gnatcatchers in two different locations in 2018 and 2021, therefore they can be expected to move around the area, including the MHPA addition area, from year to year. The MHPA boundary line adjustment will be beneficial for coastal California gnatcatchers and other covered species because the MHPA addition area contains more pristine coastal sage scrub and will widen the MHPA corridor up the side canyon to the west, where the current MHPA design lacks habitat adjacent to the unnamed tributary at the bottom of the canyon. The addition will offer habitat within the canyon a buffer from surrounding development and allow covered species to use the area into the foreseeable future. Covered species will also benefit because the area proposed for addition consists of a greater amount of sensitive habitat than the area proposed for subtraction. Also, the Diegan coastal sage scrub for addition consists of higher quality habitat which would be more likely to support the coastal California gnatcatcher compared to the more disturbed subtraction area, a portion of which has olive trees remaining from its former use as an orchard.

3. *Effects on habitat linkages and function of preserve areas (i.e., the exchange maintains or improves any habitat linkages or wildlife corridors).*

   The proposed boundary line adjustment would not significantly affect the value of the MHPA within the study area as linkage and wildlife corridor. Wildlife moving through the area are most likely to follow riparian corridors. Most of the area proposed for subtraction is located up-slope from the Rattlesnake Canyon riparian corridor, with a small area proposed for subtraction along the tributary riparian corridor, while all of the area proposed for addition is located along the tributary riparian corridor, meaning that the adjustment improves the potential for wildlife movement along riparian corridors. The proposed minor adjustment in the crossing location is necessary to minimize the

impact on riparian habitat and jurisdictional waters. The road crossing is designed as a clear span bridge, the best option for wildlife movement. The clear-span bridge is 75 feet long and avoids the entire 100-year floodplain, thus maintaining the wildlife corridor function of the riparian area (Figure 10, *Bridge Cross Section*).

4. *Effects on preserve configuration and management (i.e., the exchange results in similar or improved management efficiency and/or protection of biological resources).*

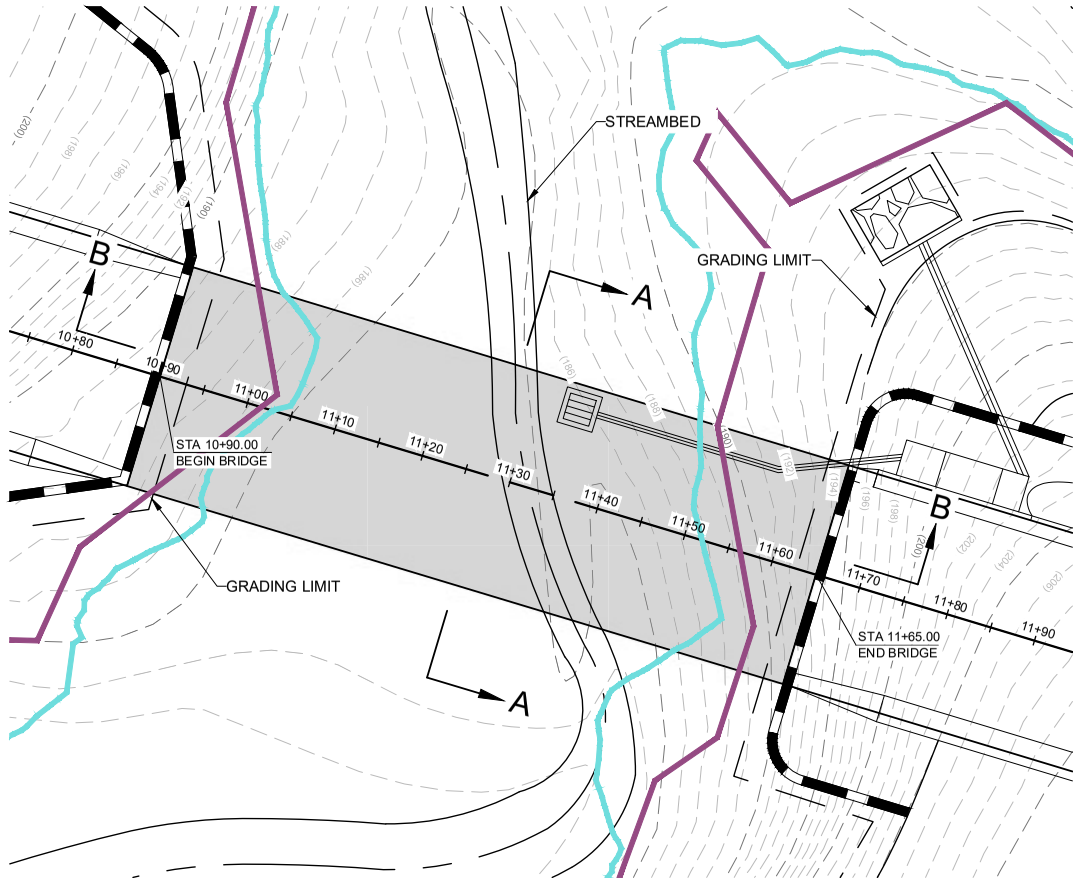
   The proposed MHPA boundary adjustment is not anticipated to have a negative effect on the management efficiency of the preserve because it would not change the balance of development and preserve in the area, and the MHPA addition is adjacent to existing MHPA. The MHPA addition area improves preserve configuration because it is located at least 170 feet from the existing cemetery and at least 80 feet, and across the creek, from the proposed cemetery expansion, as compared to the MHPA subtraction area that is located within 36 feet of the developed parking lot at the north end of the site.

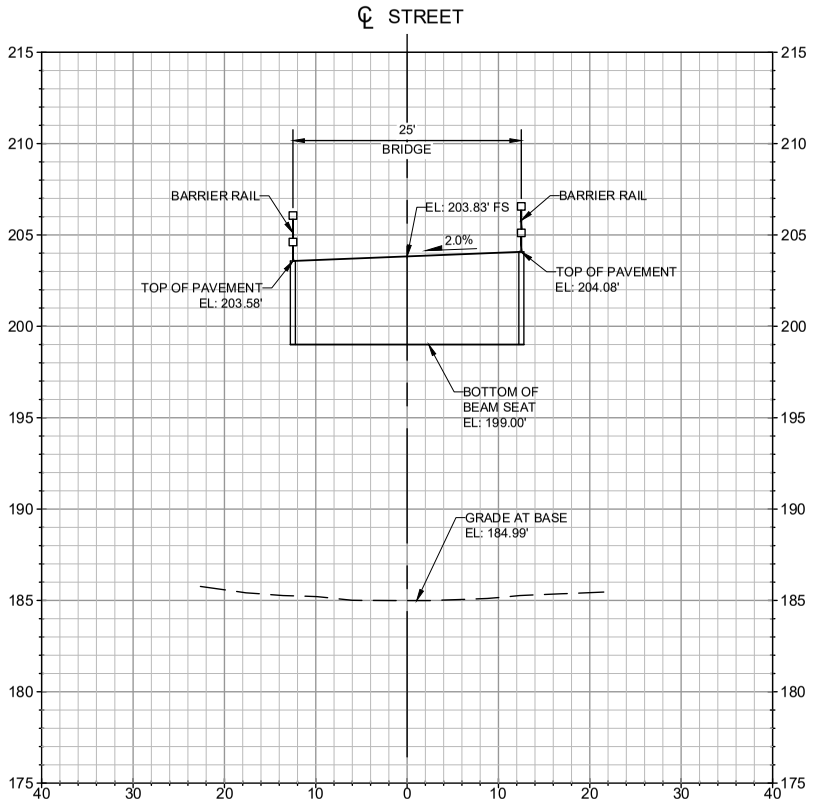
5. *Effects on ecotones or other conditions affecting species diversity (i.e., the exchange maintains topographic and structural diversity and habitat interfaces of the preserve).*

   The areas proposed for subtraction from the MHPA consist of disturbed and undisturbed Diegan coastal sage scrub and coast live oak woodland that are contiguous with similar habitats in and outside the MHPA. The area proposed for addition to the MHPA consists of undisturbed Diegan coastal sage scrub, coast live oak woodland, and southern mixed chaparral that are contiguous with similar habitats in and outside the MHPA. The addition area is also contiguous to streambed along its whole length, making it more diverse than the subtraction area. Therefore, the proposed boundary line adjustment would not result in any negative effects on structural diversity or ecotones in the MHPA.

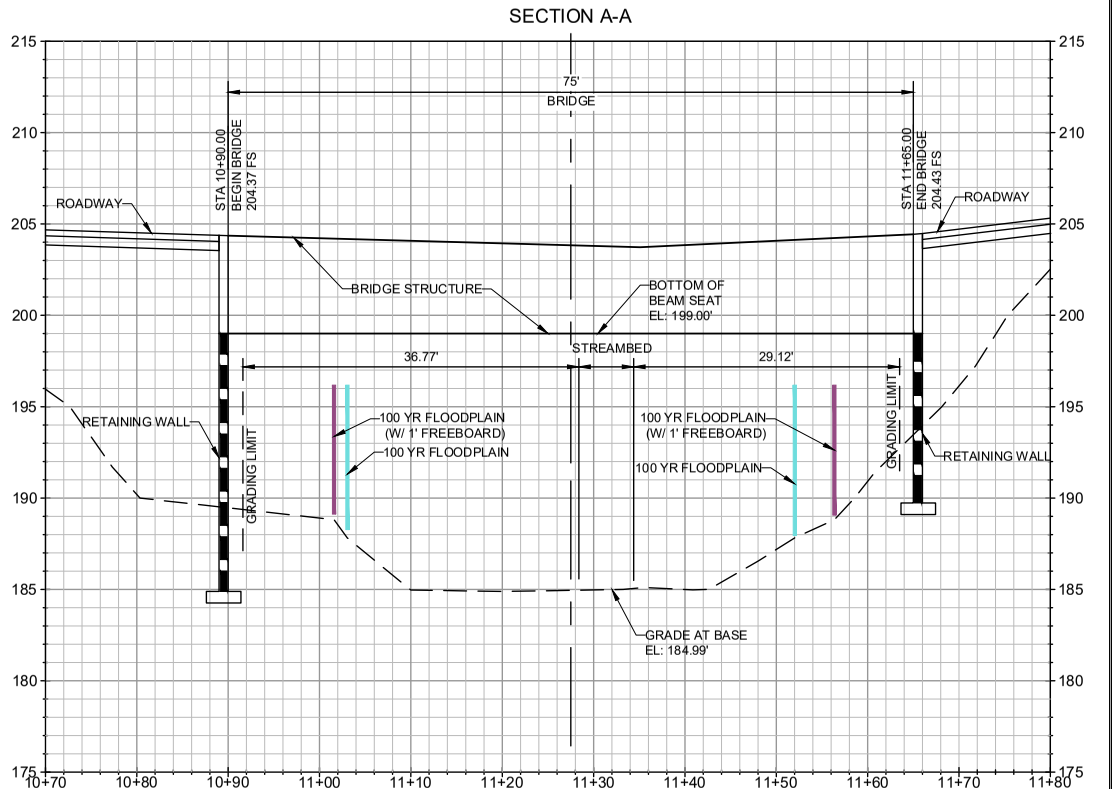
6. *Effects on species of concern not on the covered species list (i.e., the exchange does not significantly increase the likelihood that an uncovered species will meet the criteria for listing under either the federal or state ESAs).*

   The proposed boundary adjustment would not increase the likelihood that an uncovered species will be significantly impacted and meet the criteria for listing under federal or state ESAs. This includes the Crotch's bumble bee, a State Candidate Endangered species that was identified as having high potential to occur in the study area due to the food sources present and potential rodent holes for nesting, although the nearest recorded occurrence is over 40 years old and over three miles away. The areas proposed for removal consist of a smaller amount of sensitive habitat than those proposed for addition. Also, the Diegan coastal sage scrub areas proposed for subtraction consist of more degraded (i.e., disturbed) habitat than the addition area. A portion of the subtraction areas have olive trees remaining from their former use as an orchard, making them less important for the conservation of species of concern compared to the proposed addition area. Therefore, the proposed boundary adjustment will be beneficial to the Crotch's bumble bee and other uncovered species.





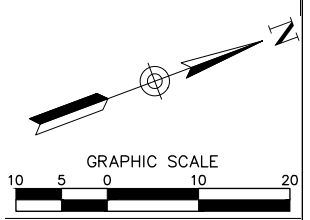
SECTION A - A
VERT. 1" = 5'
HORIZ. 1" = 10'



SECTION B - B
VERT. 1" = 5'
HORIZ. 1" = 10'

LEGEND

- 245 — EXISTING CONTOUR
- 265 — PROPOSED MAJOR CONTOUR (5')
- PROPOSED GRADING LIMITS
- PROPOSED ANCHOR BLOCK RETAINING WALL
- PROPOSED BRIDGE
- RIP RAP
- EXISTING STREAMBED (PROTECT IN PLACE)
- REVISED 100 YEAR FLOODPLAIN (W/ 1' FREEBOARD)
- REVISED 100 YEAR FLOODPLAIN



Source: Kreuzer Consulting Group, 2022

5.2 LAND USE ADJACENCY GUIDELINES – SECTION 1.4.3 OF THE MSCP

The land use adjacency guidelines are listed below, followed by a discussion documenting how the proposed project conforms to each guideline.

5.2.1 Drainage

All new and proposed development adjacent to the MHPA must not drain directly into the preserve, and must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.

Implementation of best management practices (BMPs) during construction, as well as compliance with City landscape regulations in the landscape design, would prevent drainage from the project flowing directly into the MHPA. The proposed project includes a drainage swale and a biofiltration basin to prevent discharges of untreated storm water into the MHPA.

5.2.2 Toxins

Land uses such as recreation and agriculture that use chemicals or generate byproducts that are potentially toxic or harmful to wildlife, habitat, or water quality must incorporate measures to reduce the impact of application or drainage of such materials into the MHPA.

The proposed land use is a cemetery, which would involve landscaping typical for residential and commercial development. The landscaped slopes would be maintained by the cemetery, and any chemicals would be applied following applicable laws and requirements to reduce their potential impact on the proposed biological open space or drainage into the MHPA.

5.2.3 Lighting

Lighting must be directed away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

The cemetery expansion is not a land use that would produce excessive light spill. The cemetery is closed at sunset and does not include lighting. Therefore, the project would not introduce night lighting to the MHPA.

5.2.4 Noise

Uses adjacent to the MHPA must be designed to minimize noise that might impact or interfere with wildlife utilization of the MHPA.

The off-site MHPA within 500 feet of the impact area has marginal potential to support breeding coastal California gnatcatchers. Potential impacts of construction noise on gnatcatchers would be avoided by implementation of the following coastal California gnatcatcher protection requirement, which shall be made a condition of the permit and shown on the construction plans:

Biology Condition 1: Coastal California Gnatcatcher Protection Requirement – No clearing, grubbing, grading, or other construction activities shall occur between March 1 and August 15, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of the City Manager:

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

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

ii. Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or

iii. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

** Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but*

are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

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

i. If this evidence indicates the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then condition III shall be adhered to as specified above.

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

Once constructed, cemetery operations are not expected to generate noise exceeding 60 dBA hourly average at the edge of occupied habitat. Therefore, the project would not have construction-phase or operational noise impacts that would impact or interfere with wildlife utilization of the MHPA.

5.2.5 Barriers to Incursion

New development adjacent to the preserve may be required to provide barriers along MHPA boundaries to redirect public access to appropriate locations and reduce domestic animal predation in the preserve.

After boundary line adjustment, the southwestern portion of the project footprint is separated from the MHPA by avoided habitat areas; however, the MHPA boundary is located along the northwest and southeast portions of the Phase 2 impact area. Three strand cable fencing or similar barriers will be placed where the project footprint adjoins the adjusted MHPA, as shown on Figure 11, *Vegetation and Jurisdictional Features/Impacts*. In addition to fencing, the project landscaping plan includes a strip of native vegetation along project edges that are adjacent to existing native habitat, which would also discourage incursion into the MHPA. Additionally, human activity and visitation will be limited within the project footprint which will help to protect the MHPA.

5.2.6 Invasive Species

No invasive plant species shall be introduced into areas adjacent to the MHPA.

No invasive plant species will be used in the landscape plans. The main part of the project footprint will be landscaped with turf grass with holly oak (*Quercus ilex*) and Chinese elm (*Ulmus parvifolia*) trees. A buffer of native species will be planted between the project footprint and the MHPA, with coastal sage scrub species on the slope and native willows, mule fat, and coast live oak at the bottom of the slope near the creek. These areas will also be seeded with native hydroseed.

5.2.7 Brush Management

New residential development located adjacent to and topographically above the MHPA must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zone 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA.

The project does not include residential development. Thus, no brush management is proposed as part of the project, and no brush management would extend into the biological open space or the MHPA.

5.2.8 Grading/Land Development

Manufactured slopes associated with project development must be included in the project footprint.

No manufactured slopes associated with the proposed project would extend into the MHPA. All manufactured slopes are included in the project footprint.

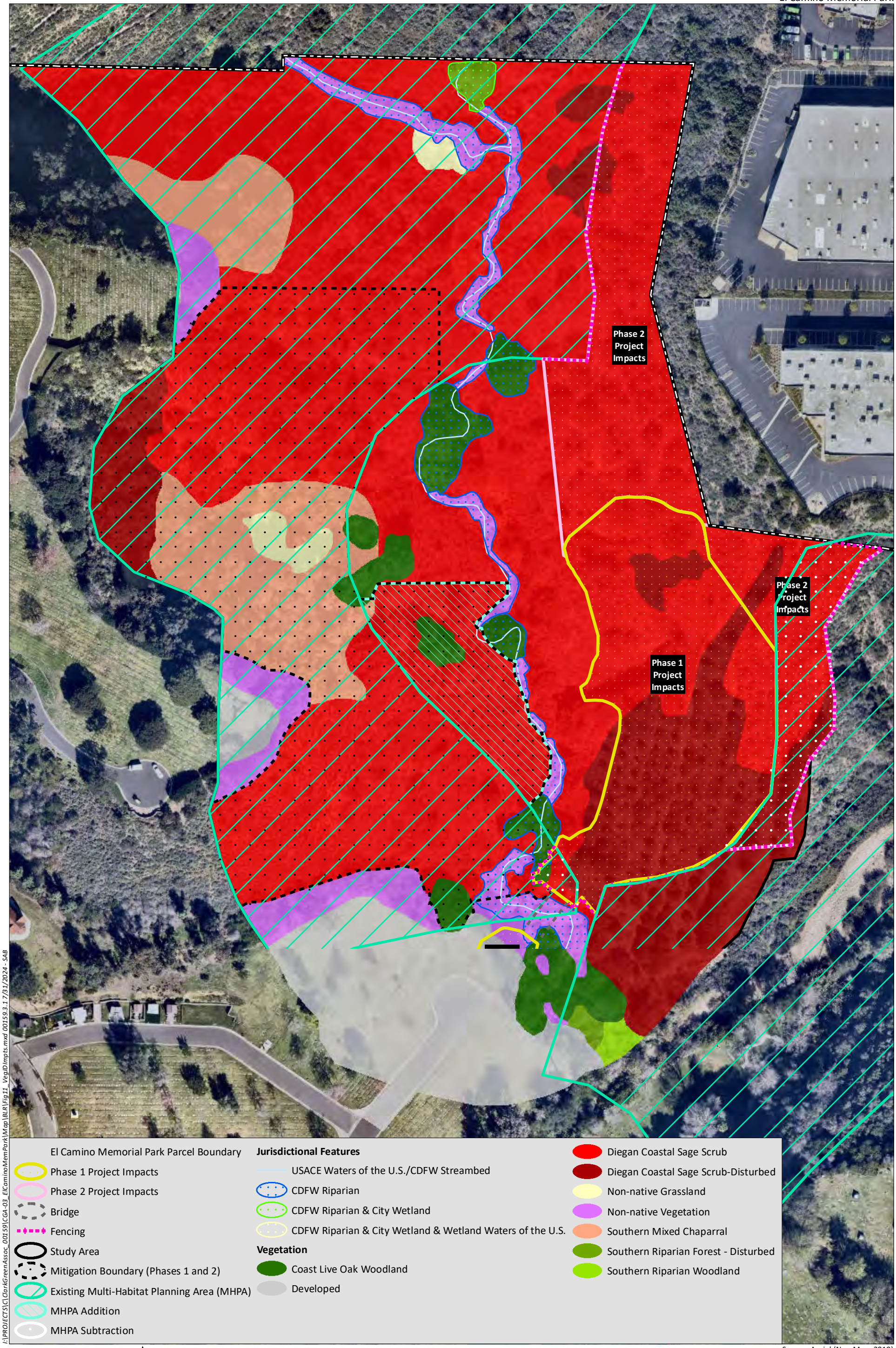
5.3 CONDITIONS OF COVERAGE

Sensitive species were evaluated for coverage under the MSCP. Several of the species observed or determined to have high potential to occur on the project site (Attachment D) had area specific management directives (ASMDs) applied to them as conditions of coverage as described below.

San Diego barrel cactus
Condition: Area specific management directives must include measures to protect this species from edge effects and unauthorized collection; directive should also include appropriate fire management/control practices to protect against a too frequent fire cycle.
Discussion: The project design minimizes edge effects as detailed in the Land Use Adjacency analysis below. The open space will be protected from unauthorized collection by fencing, buffer zones, and easement recordation. The project does not include residential development and does not require brush management zones for fire protection.

Coastal California gnatcatcher
Condition: Area specific management directives must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. No clearing of occupied habitat within the cities' MHPAs and within the County's Biological Resource Core Areas may occur between March 1 and August 15.
Discussion: The project design minimizes edge effects as detailed in the Land Use Adjacency analysis below. The project does not require brush management zones for fire protection. Implementation of mitigation measure BIO-1 will minimize disturbance during the nesting period and ensure that occupied habitat within the MHPA is not cleared during the gnatcatcher breeding season. The planting of drainage swales along the edge of the project will improve habitat quality on-site, and improve the water quality of runoff, and the habitat preserved according to mitigation measure BIO-3 will receive ongoing management and monitoring by the City according to the City's MSCP Framework Management Plan and ASMDs. Finally, the on-site open space will be permanently protected by easement recordation per Biology Condition 2.

Orange-throated whiptail
Condition: Area specific management directives must address edge effects.
Discussion: Edge effects are addressed under Land Use Adjacency.



Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Jurisdictional Features/Impacts

Figure 11

Coast horned lizard
Condition: Area specific management directives must include specific measures to maintain native ant species, discourage the Argentine ant, and protect against detrimental edge effects to this species.
Discussion: The project includes native habitat buffers and drainage swales along the edge of the project to channel runoff toward the creek bottom, thus reducing the potential for irrigation water to enter the open space and encourage Argentine ants. Edge effects are addressed under Land Use Adjacency.

Cooper's hawk
Conditions: In the design of future projects within the Metro-Lakeside-Jamul segment, design of preserve areas shall conserve patches of oak woodland and oak riparian forest of adequate size for nesting and foraging habitat. Area specific management directives must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests.

Discussion: The project is not located within the Metro-Lakeside-Jamul segment. The project minimizes disturbance in oak woodlands and oak riparian forests by using a clear span bridge and keeping grading outside of the flood plain. Implementation of mitigation measure BIO-1 will provide for avoidance around active nests during the nesting period.

Southern California rufous-crowned sparrow
Conditions: Area specific management directives must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.
Discussion: The project does not require brush management zones for fire protection.

5.4 SPECIAL-STATUS SPECIES

No federally or state listed endangered or threatened plant or animal species are known to breed within the study area, and none are expected to be impacted by the project. Protocol survey conducted in 2018 and 2021 for coastal California gnatcatcher showed varying use of the study area from year to year, and the site could potentially be occupied by this species. Any noise impacts to breeding coastal California gnatcatchers located in the offsite MHPA would be considered potentially significant. However, as the project will be consistent with the Land Use Adjacency Guidelines the impact would not be considered significant.

Project development has been intentionally planned for the more disturbed eastern portion of the site, focusing on the old orchard area, farther from the unnamed tributary to Rattlesnake Canyon Creek, and avoids impacts to summer holly; however, the project would impact four plant species listed as sensitive by the CNPS: decumbent goldenbush, San Diego barrel cactus, ashy spike-moss, and San Diego sagewort. The project would impact approximately 216 decumbent goldenbush (CRPR 1B.2), 35 San Diego barrel cactus (CRPR 2B.1), patches of ashy spike-moss (CRPR 4.1), and two San Diego sagewort (CRPR 4.2). These species are known to occur at multiple locations in the area, including within MHPA and in the area proposed for inclusion in the MHPA. The proposed impacts represent 31 percent of the 699 decumbent goldenbush within the study area, 17 percent of the 202 San Diego barrel cactus, and eight percent of the 25 San Diego sagewort within the study area. Because the majority of individuals present in the study area will be avoided, combined with the documented occurrences of these species within nearby preserved lands, the impacts to these species will not have a substantial adverse impact and are not considered significant. One other special status plant species (Robinson's pepper-grass) has

a high potential to occur on-site, given that dead pepper-grass observed on-site could not be identified to species. Robinson's pepper-grass, which is CRPR 4.3, could occur in the study area, within both the impact and mitigation areas. No other special status plant species are expected due to lack of suitable habitat; none are expected to be impacted by the project.

Crotch's bumble bee, a State Candidate Endangered species, was observed within the project area during surveys. Per discussion with the CDFW and City on August 22, 2024, the CDFW will likely consider the entire site occupied by Crotch's bumble bee based on the positive survey and suitable habitat across the site that includes potential food sources and rodent holes for nesting. The factors that make the impact area suitable for the species are also present in the mitigation area. The mitigation area has a higher percentage and diversity of native species, providing nectar resources throughout the flight season and making it a better quality foraging habitat than the impact area. The soils within the mitigation area have been less disturbed than the impact area, which may make them less compacted and more suitable for nesting than the impact area. Therefore, the habitat mitigation measure BIO-3 provides mitigation for impacts to potential Crotch's bumble bee habitat. There would be a potential for direct impacts to individuals if vegetation removal occurred during the Crotch's bumble bee flight season (February 1 through October 31); however, implementation of mitigation measure BIO-2 would minimize direct impacts to Crotch's bumble bee during project construction and implementation of mitigation measure BIO-3 would mitigate impacts to Crotch's bumble bee habitat. The project's potential impact to this species would be considered less than significant with the implementation of mitigation measures BIO-2 and BIO-3.

White-tailed kite, a fully protected species, was observed flying over the study area, outside of the project footprint. This species nests high in trees, and forages over low scrub and grasslands. The proposed project has small (less than 0.1 acre) impacts to coast live oak woodland that could potentially be used for nesting by this species, although no active or former nests were observed during biological surveys. The proposed impacts to potential white-tailed kite nesting habitat will not have a substantial adverse impact on the species due to the small acreage of habitat impact and are not considered significant. Direct impacts to nesting white-tailed kites during the nesting season would be considered significant. Potentially significant direct or indirect impacts to nesting white-tailed kite could occur if they are found to be nesting on-site or within 500 feet of the site; however, implementation of Mitigation Measure BIO-1 would reduce impacts to less than significant.

Mule deer, an MSCP covered species, was observed in the project area. The most important MSCP goal for this species is to provide for adequate wildlife movement through the plan area. As shown on Figure 10, the proposed bridge would have a 75-foot span and be only 28 feet wide, with up to 14 feet of clearance below the bridge, making it an excellent wildlife crossing for all types of wildlife, including the mule deer. The proposed MHPA boundary line adjustment will ensure that areas removed from MHPA will be replaced with equal or better habitat, and the proposed impacts to habitat supporting this species will be mitigated on-site within MHPA, thus ensuring adequate habitat preservation for this species within the study area as well as movement ability through the study area, and impacts to this species are considered less than significant with the implementation of the habitat-based mitigation described in Section 5.5.

The San Diego desert woodrat, a State Species of Special Concern, is presumed present in the study area, given observations of stick nests. Because nests were observed at multiple locations in the area, including within MHPA, impacts to this species would be considered less than significant with the implementation of the habitat-based mitigation described in Section 5.5.

The federally threatened coastal California gnatcatcher was observed in the project area during protocol surveys conducted in 2021, and the study area is considered occupied by coastal California gnatcatcher. Indirect impacts could occur to breeding gnatcatchers in the MHPA if construction occurred during the breeding season and gnatcatchers were breeding in the portion of the MHPA adjacent to the construction. Because the site is located adjacent to the MHPA, implementation of Biology Condition 1 pursuant to the Land Use Adjacency Guidelines would ensure that no indirect impacts occur to breeding coastal California gnatcatchers within the off-site MHPA during project construction.

The City's permit to "take" covered species under the MSCP is based on the concept that 90 percent of lands within the MHPA will be preserved. To avoid significant encroachment into the MHPA, the project includes a boundary line adjustment which includes a habitat equivalency assessment as detailed in Section 5.1, to ensure that what will be added to the MHPA is at least equivalent to what would be removed.

5.5 RIPARIAN HABITAT AND SENSITIVE NATURAL COMMUNITIES

The project would result in a total of less than 0.1 acre of permanent, direct impacts to coast live oak woodland, a Tier I habitat, and 5.2 acres of Diegan coastal sage scrub (including disturbed), a Tier II habitat, outside of the MHPA (Figure 11; Table 5, *Habitat Impacts*). Impacts to Tier I and II habitat are considered significant. The project would not impact any wetland vegetation communities. All impacts are outside the MHPA and all mitigation is inside the MHPA after a proposed boundary line adjustment; therefore, impacts to Tier I and II habitat must be mitigated at a 1:1 ratio.

Implementation of mitigation measure BIO-3 and Biology Condition 2 would reduce the impact on Tier I and II habitats to a less than significant level.

Table 5
HABITAT IMPACTS

Vegetation Community	Tier	Impacts (acres)		
		Phase 1	Phase 2	Entire Project
Coast Live Oak Woodland	I	<0.1	--	<0.1
Diegan Coastal Sage Scrub (including disturbed)	II	2.5	2.7	5.2
Non-native Vegetation	IV	<0.1	--	<0.1
Developed Land		0.1	--	0.1
TOTAL		**2.6**	**2.7**	**5.3**

The project would result in significant impacts to Tier I and II habitats; however, mitigation measures to fully compensate the loss of habitat would reduce impacts to below a level of significance. Mitigation is proposed at ratios consistent with those required by the City and Wildlife Agencies. With the implementation of mitigation measure BIO-3 and Biology Condition 2, impacts on Tier I and Tier II habitats would be reduced to less than significant.

5.6 JURISDICTIONAL WETLANDS AND WATERWAYS

The project would not result in direct impacts to federally- or City-protected wetlands or vernal pools since the impact footprint and proposed clear-span bridge completely avoids the unnamed tributary and patches of disturbed southern riparian forest and southern riparian woodland, and no vernal pools

occur on-site (Table 6, *Jurisdictional Waters Impacts*). The project would impact 0.03 acre of CDFW riparian habitat, consisting of 0.03 acre of coast live oak woodland (Figure 11, Table 6).

Table 6
JURISDICTIONAL WATERS IMPACTS

Jurisdictional Areas	Acres
USACE/RWQCB	
Wetland and Non-wetland Waters of the U.S./State	0
USACE TOTAL	**0**
CDFW	
Non-vegetated Streambed	0
Riparian Habitat (Coast Live Oak Woodland)	0.03
CDFW TOTAL	**0.03**
City	
City Wetlands	0
CITY TOTAL	**0**

A Streambed Alteration Agreement would be required for impacts to 0.03 acre of CDFW jurisdictional riparian habitat pursuant to Section 1600 *et seq.* of the California Fish and Game Code and mitigation measure BIO-4. Proposed mitigation consists of on-site preservation and/or enhancement of CDFW-jurisdictional coast live oak woodland and non-native vegetation at a 2:1 ratio. The final details of mitigation for jurisdictional impacts will be determined in consultation with CDFW as part of regulatory permitting prior to issuance of permits by the City.

The project includes an earthen drainage swale along the east side of the developed area, which would prevent direct runoff from landscaping into the adjacent wetlands and waters. Runoff from the road will flow into an inlet at the low point of the bridge and be routed into a stormwater biofiltration system before outfalling to a riprap energy dissipator near the existing streambed, thus maintaining the water supply and water quality to the wetland. The slope west of the road will sheet flow down the existing and graded slope, and the developed area is separated from the avoided wetland waters of the U.S./City-jurisdictional wetland by at least 65 feet of avoided habitat. The slopes will incorporate erosion control BMPs per the City's standards to prevent erosion into the wetland. The proposed swales meet the City's requirement to protect the functions and values of the avoided wetland.

5.7 WILDLIFE MOVEMENT AND NURSERY SITES

The project would not impede the movement of any native, resident, or migratory fish or wildlife species or interfere with established native, resident, or migratory wildlife corridors. Wildlife may continue to use the MHPA on either side of the project, and will be able to travel between these MHPA areas, beneath a bridge spanning the tributary channel. The opening underneath the bridge will be 75 feet wide, 28 feet long, and approximately 14 feet tall at the deepest point of the streambed.

Policy 6.a of the Mira Mesa Community Plan applies to the project because of its location along Rattlesnake Canyon: "Preserve (or restore if disturbed) riparian areas in Carroll and Rattlesnake Canyons to the full width of the floodplain. In order to foster conditions that allow for healthy ecological functioning and provide for adequate wildlife movement, upland habitat such as Coastal Sage Scrub, Grasslands and Maritime Chaparral shall be preserved or restored adjacent to the riparian area

wherever possible to provide a buffer with a minimum width of 100 feet. The buffer may be reduced in width to accommodate the construction of Carroll Canyon Road and the future trolley alignment."

The project is consistent with the Community Plan because proposed grading is set back at least 100 feet from the 100-year floodplain of Rattlesnake Canyon Creek, as shown on the project plans, and the Phase 2 area along Rattlesnake Canyon Creek would be landscaped with a native hydroseed mix, thus providing at least a 100-foot buffer of upland coastal sage scrub habitat. The full width of the floodplain along Rattlesnake Canyon Creek would also remain available for wildlife movement. The project would also avoid impacting the 100-year floodplain of the tributary canyon on the west side of the project footprint, including where the proposed bridge spans the unnamed tributary (Figure 10). Project slopes adjacent to the MHPA would be planted with native coastal sage scrub vegetation, with native riparian plants down along the creek, providing an upland buffer to the riparian area.

The proposed project will include impacts approximately 400 feet in width, at the widest part of the project footprint. However, native habitat occurs and will remain intact, extending a minimum of approximately 410 feet to the west of the project footprint, which would allow for continued use of the wildlife corridor that includes the unnamed tributary by animals in the vicinity. Native habitat extends over 1,900 feet to the east of Phase 1 of the project, across the Rattlesnake Canyon wildlife corridor. The northern part of the project (Phase 2) is proposed for construction adjacent to existing development. Wildlife access to the canyons north and south of the project would not be cut off by the implementation of the project. In addition, the project would not interfere with linkages identified in the MSCP Plan or use of native wildlife nursery sites. For these reasons, the proposed project would not interfere with habitat connectivity and wildlife corridors.

6.0 MITIGATION AND MONITORING REQUIREMENTS

The following mitigation measures shall be implemented in order to reduce potential impacts from the El Camino Memorial Park Secret Canyon project to below the level of significance.

6.1 BIOLOGICAL RESOURCE PROTECTION DURING CONSTRUCTION

Implementation of Mitigation Measure BIO-1 would reduce potential impacts from construction to below the level of significance.

BIO-1 Prior to the issuance of any grading or landscaping permit, the City Manager (or appointed designee) shall verify that the following project requirements are shown on the construction plans:

Biological Resource Protection During Construction

I. Prior to Construction

A. **Biologist Verification –** The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2018), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Preconstruction Meeting –** The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. **Biological Documents –** The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.

D. **BCME –** The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. **Avian Protection Requirements –** To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special status species in the MSCP, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species, including white-tailed kite, southern California rufus-crowned sparrow, Bell's sage sparrow, California coastal gnatcatcher, and Cooper's hawk (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The project applicant shall submit the results of the pre-construction survey to City DSD for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report are in place prior to and/or during construction.

F. **Resource Delineation –** Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during

construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

G. **Education –** Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. **Monitoring –** All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be emailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. **Subsequent Resource Identification –** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

BIO-2 Crotch's Bumble Bee Protection Requirement: Due to the presence of the candidate state endangered species Crotch's bumble bee (*Bombus crotchii*) and suitable habitat for the species within the project site, the following measures shall be implemented to reduce potential impacts to this species. The measures below shall only be required if Crotch's bumble bee remains as a candidate state endangered species or is listed as a state endangered or threatened species at the time of project construction. If Crotch's bumble bee is delisted, then impacts to the species would not be significant, and the measures below shall not be required.

Construction Timing: Before the issuance of any grading or landscaping permit, the City Manager (or appointed designee) shall verify that the following project requirements are shown on the construction plans. To minimize direct and indirect impacts to Crotch's bumble bee, removal of vegetation within suitable habitat shall be conducted during the non-flight season (November 1 through January 31), so that when the bees start flying, they will move out of the

cleared area. Vegetation removal should be conducted in a manner to minimize soil disturbance, which could affect any Crotch's bumble bee nests, as well as to leave the roots of vegetation in place to help with ground stability until grading starts. Grading shall be conducted during the next flight season (February 1 through October 31) while the adult bees are mobile. Any deviation from this schedule would require CDFW approval and could require additional surveys. Suitable habitat within the project site consists of Diegan coastal sage scrub/*Artemisia californica-Salvia mellifera* Association (including disturbed), southern mixed chaparral/*Xylococcus bicolor-Quercus (berberidifolia)* Association, and coast live oak woodland/*Quercus agrifolia* Alliance.

Incidental Take Permit: Before the issuance of a grading permit, the project applicant shall conduct CESA-required consultation with CDFW regarding the project's effects to Crotch's bumble bee occupied habitat has occurred, and, if CDFW expects take of Crotch's bumble bee, that CDFW has authorized such take through an incidental take permit (pursuant to Fish & Game Code, § 2080 et seq), as applicable. The project applicant shall comply with the measures detailed in the take authorization issued by CDFW, which shall supersede any inconsistent measures provided in this report. The project applicant shall provide a copy of a fully executed take authorization to the City before implementing project ground-disturbing activities and vegetation removal.

Compensatory Mitigation: Permanent direct impacts to occupied Crotch's bumble bee habitat shall be offset through compensatory mitigation by preservation of Tier II habitat as described in mitigation measure BIO-3. However, if an incidental take permit is issued for the project that covers Crotch's bumble bee, that document shall supersede any inconsistent measures and mitigation ratios provided in this report.

6.2 MITIGATION FOR IMPACTS TO SENSITIVE UPLAND HABITATS

6.2.1 Mitigation Element

Implementation of Mitigation Measure BIO-3 would reduce the impacts to Tier I and II habitat to below the level of significance (Table 7, *Sensitive Habitat Impacts and Mitigation*).

Table 7
SENSITIVE HABITAT IMPACTS AND MITIGATION

Vegetation Community	Tier	Impacts (acres)	Mitigation Ratio[1]	Required Mitigation (acres)	Proposed Mitigation (acres)[2]
Coast Live Oak Woodland	I	<0.1 (0.03)	1:1	<0.1 (0.03)	0.2 (0.22)
Diegan Coastal Sage Scrub (including disturbed phase)	II	5.2	1:1	5.2	5.2
	TOTAL	**5.2**	**-**	**5.2**	**5.3**

[1] Mitigation ratios assume all impacts are outside the MHPA and all mitigation is inside the MHPA (after boundary line adjustment).

[2] Mitigation consists of preservation. A continuous block of habitat was preserved within the MHPA. Preservation in excess of mitigation requirements (totaling 0.19 acre of coast live oak woodland, 1.2 acres of southern mixed chaparral, and 0.1 acre of non-native grassland) is reserved for compensatory habitat mitigation for future El Camino Memorial Park projects.

BIO-3 Compensatory Mitigation: As mitigation for impacts to less than 0.1 acre (0.03 acre) of Tier I habitat in Phase 1 and 5.2 acres of Tier II habitat (2.5 acres in Phase 1 and 2.7 acres in Phase 2), the project applicant shall preserve 0.03 acre of Tier I habitat and 5.2 acres of Tier II habitat. Compensatory mitigation for all habitat impacts shall be provided prior to the start of construction for Phase 1. A total of 0.19 acre of coast live oak woodland, 1.2 acres of southern mixed chaparral, and 0.1 acre of non-native grassland preserved in excess of mitigation requirements is reserved for compensatory habitat mitigation for future El Camino Memorial Park projects. The proposed mitigation area includes these acreages (Table 7). Mitigation for impacts to Tier I habitat would occur in Tier I within the MHPA. Mitigation ratios assume all impacts are outside the MHPA and all mitigation is inside the MHPA (after boundary line adjustment).

Since mitigation areas occur within the MHPA, the City is expected to be granted a covenant of easement over the mitigation areas and to be responsible for the long-term management of the mitigation area. Upon acceptance of the property, the area will be managed in accordance with the MSCP Framework Management Plan. According to City Biology Guidelines, preservation of lands inside the MHPA, outside of brush management zones, are considered to have long-term viability due to their connectivity to larger planned open space and their contribution toward regional biodiversity preservation.

6.2.2 Protection and Notice Element

The proposed mitigation lands will be protected in accordance with the Biology Guidelines – Protection and Notice Element by recordation of a covenant of easement, according to Biology Condition 2. According to the Biology Guidelines – Protection and Notice Element, "Dedication in fee title to the City is the preferred method of protecting mitigation areas. It is the City's policy to accept lands being offered for dedication unless certain circumstances prohibit the acceptance, such as the presence of hazardous materials, title problems, unpaid taxes or unacceptable encumbrances including liens." In this case the City selected a covenant of easement as the appropriate protection mechanism given the lack of adjacency to other City-owned land.

Biology Condition 2: Prior to recordation of the first final map and/or issuance of any grading and/or landscaping permits, the on-site MHPA within the Mitigation Boundary shown on Figure 8 shall be conveyed to the City's MSCP preserve through covenant of easement granted in favor of the City and wildlife agencies.

6.2.3 Management Element

According to the Biology Guidelines – Management Element, if the City accepts fee title or is granted a covenant of easement, then the City is responsible for managing the mitigation lands in accordance with the MSCP Framework Management Plan and ASMDs. The Biology Guidelines state that the project applicant is not responsible for future monitoring reports or maintenance activities. Landowner responsibilities under the covenant of easement will be funded by the cemetery's perpetual endowment fund.

6.3 MITIGATION FOR IMPACTS TO JURISDICTIONAL HABITAT

Implementation of Mitigation Measure BIO-4 would reduce the impacts to CDFW-jurisdictional habitat to below the level of significance.

BIO-4 **Notification of Lake or Streambed Alteration:** Prior to issuance of permits by the City, the project applicant will submit Notification of Lake or Streambed Alteration to CDFW for impacts to 0.03 acre of CDFW jurisdictional riparian habitat pursuant to Section 1600 et seq. of the California Fish and Game Code and obtain either a Streambed Alteration Agreement or written response from CDFW. Proposed mitigation could consist of on-site preservation and/or enhancement of CDFW-jurisdictional riparian habitat at a 2:1 ratio or other on-site or off-site mitigation to the satisfaction of CDFW. The final details of mitigation for jurisdictional impacts will be determined in consultation with CDFW as part of the Section 1600 permitting process.

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Appendix A

Plant Species Observed

Family	Scientific Name	Common Name	HABITAT**
PTERIDOPHYTES			
Adiantaceae	*Adiantum* sp.	maidenhair	DCSS, SMC
GYMNOSPERMS			
Pinaceae	*Pinus* sp.*	Pine	CLOW, DCSS, NNV
MONOCOTS			
Agavaceae	*Yucca schidigera*	Mohave yucca	DCSS
Cyperaceae	*Carex triquetra*	triangular fruited sedge	DCSS
	Cyperus eragrostis	tall flatsedge	NNV
Iridaceae	*Sisyrinchium bellum*	blue-eyed grass	DCSS
Liliaceae	*Calochortus splendens*	lilac mariposa lily	DCSS, DCSS-D
Poaceae	*Bothriochloa barbinodis*	cane bluestem	DCSS-D
	*Bromus diandrus**	common ripgut grass	CLOW, DCSS, SMC, NNG
	*Bromus madritensis**	foxtail chess	DCSS, DCSS-D, NNG
	Cortaderia sp.*	pampas grass	SRF-D/SRW, CLOW, DCSS-D, NNV
	Elymus condensatus	giant wild rye	CLOW, DCSS
	*Festuca myuros**	fescue	DCSS-D
	Melica imperfecta	melic	DCSS
	*Polypogon monspeliensis**	annual beardgrass	NNV
	*Schismus barbatus**	Mediterraneangrass	DCSS
	Stipa lepida	foothill needlegrass	DCSS
	*Stipa miliacea**	smilo grass	SMC, NNG
	Stipa pulchra	purple needlegrass	DCSS
	Stipa sp.	needlegrass	CLOW, DCSS, DCSS-D
	unidentified grasses*	unidentified grasses	CLOW, DCSS, NNV
Themidaceae	*Dichelostemma capitatum*	blue dicks	DCSS
DICOTS			
Adoxaceae	*Sambucus nigra* ssp. *caerulea*	blue elderberry	DCSS, SMC
Aizoaceae	*Carpobrotus edulis**	hottentot-fig	DCSS-D
Altingiaceae	*Liquidambar styraciflua**	sweetgum	NNV
Anacardiaceae	*Malosma laurina*	laurel sumac	DCSS, DCSS-D, SMC
	Rhus integrifolia	lemonadeberry	CLOW, DCSS-D, SMC
	Toxicodendron diversilobum	poison oak	CLOW, DCSS, NNV
Apiaceae	*Apiastrum angustifolium*	mock parsley	DCSS
	Daucus pusillus	rattlesnake weed	DCSS
	Sanicula arguta	sharp-tooth sanicle	DCSS
	*Washingtonia robusta**	Mexican fan palm	NNV
Asteraceae	*Acourtia microcephala*	sacapellote	CLOW, NNG, NNV
	Ambrosia psilostachya	western ragweed	NNV
	Artemisia californica	California sagebrush	DCSS, DCSS-D
	Artemisia palmeri†	San Diego sagewort	DCSS
	Baccharis pilularis	coyote brush	CLOW, NNV
	Baccharis salicifolia	mule fat	CLOW
	Baccharis sarothroides	broom baccharis	DCSS, DCSS-D, NNV
	*Carduus pycnocephalus**	Italian thistle	DCSS, SMC, NNG, NNV
	*Centaurea melitensis**	tocalote	DCSS, DCSS-D
	Chaenactis sp.	pincushion	DCSS
	Corethrogyne filaginifolia	sand aster	CLOW, DCSS
	Deinandra fasciculata	fascicled tarplant	DCSS, DCSS-D

Family	Scientific Name	Common Name	HABITAT**
Asteraceae (cont.)	*Encelia californica*	California encelia	DCSS
	Erigeron foliosus	leafy daisy	DCSS
	Eriophyllum confertiflorum	golden-yarrow	DCSS, DCSS-D
	Gutierrezia sarothrae	San Joaquin matchweed	DCSS
	Hazardia squarrosa var. *grindelioides*	saw-toothed goldenbush	DCSS
	*Hypochaeris glabra**	smooth catsear	DCSS
	Isocoma menziesii	goldenbush	DCSS
	Isocoma menziesii var. *decumbens*†	decumbent goldenbush	DCSS
	*Lactuca serriola**	prickly lettuce	DCSS-D
	Lasthenia californica	goldfields	DCSS
	Layia platyglossa	tidy-tips	DCSS
	*Logfia gallica**	narrow-leaf filago	DCSS
	Osmadenia tenella	osmadenia	DCSS
	Pseudognaphalium californicum	California everlasting	DCSS, DCSS-D
	Pseudognaphalium sp.	everlasting	DCSS
	*Sonchus asper**	prickly sow thistle	DCSS
	*Sonchus oleraceus**	common sow thistle	NNV
	Stylocline sp.	nest straw	DCSS
	Uropappus lindleyi	silver puffs	DCSS
Boraginaceae	*Amsinckia intermedia*	rancher's fiddleneck	CLOW, NNG
	Cryptantha sp.	cryptantha	DCSS
	Eriodictyon crassifolium	felt-leaf yerba santa	DCSS, DCSS-D
	Phacelia sp.	phacelia	DCSS
	Pholistoma racemosum	San Diego fiesta flower, filaree-leaf nemophila	DCSS
Brassicaceae	*Brassica nigra**	black mustard	CLOW, DCSS
	*Hirschfeldia incana**	mustard	DCSS-D
	Lepidium sp.	pepper-grass	DCSS
	Sisymbrium sp.*	mustard	NNV
	Thysanocarpus curvipes	lacepod	DCSS
Cactaceae	*Ferocactus viridescens*†	San Diego barrel cactus	DCSS
	Opuntia littoralis	coastal prickly pear	CLOW, DCSS, DCSS-D
Capparaceae	*Peritoma arborea*	bladderpod	DCSS-D
Caprifoliaceae	*Lonicera subspicata*	honeysuckle	CLOW, DCSS, DCSS-D
Chenopodiaceae	*Chenopodium californicum*	California pigweed	NNG
	*Salsola tragus**	Russian thistle	CLOW
Convolvulaceae	*Calystegia* sp.	morning-glory	DCSS
Crassulaceae	*Dudleya lanceolata*	coastal dudleya	DCSS, DCSS-D
	Dudleya pulverulenta	chalk-lettuce	DCSS
Cucurbitaceae	*Marah macrocarpa*	wild cucumber	CLOW, DCSS
Ericaceae	*Xylococcus bicolor*	mission manzanita	SMC
Euphorbiaceae	*Croton setiger*	turkey-mullein	DCSS
Fabaceae	*Acacia* sp.*	acacia	CLOW, NNV
	Acmispon glaber	deerweed	DCSS, DCSS-D
	Acmispon strigosus	Bishop's lotus	DCSS
	Lupinus bicolor	miniature lupine	DCSS
	Lupinus sp.	lupine	DCSS
	*Melilotus indicus**	annual yellow sweetclover	DCSS-D

Family	Scientific Name	Common Name	HABITAT**
Fagaceae	*Quercus agrifolia* var. *agrifolia*	coast live oak	CLOW, DCSS, SMC
	Quercus berberidifolia	scrub oak	CLOW, DCSS, SMC
Gentianaceae	*Zeltnera venusta*	Canchalagua	DCSS
Geraniaceae	*Erodium cicutarium**	redstem filaree	DCSS
Grossulariaceae	*Ribes speciosum*	fuschia-flowered gooseberry	CLOW, DCSS
Lamiaceae	*Salvia apiana*	white sage	DCSS
	Salvia mellifera	black sage	DCSS, DCSS-D, SMC, NNG
Malvaceae	*Sidalcea malviflora*	checkerbloom	DCSS, DCSS-D
Myrsinaceae	*Lysimachia* [*Anagallis*] *arvensis**	scarlet pimpernel	DCSS, NNV
Myrtaceae	*Callistemon* sp.*	bottle brush	DCSS
	Eucalyptus sp.*	eucalyptus	NNV
Nyctaginaceae	*Mirabilis laevis* ssp. *crassifolia*	wishbone bush	DCSS
Oleaceae	*Olea europaea**	olive	CLOW, DCSS, DCSS-D, SMC
Onagraceae	*Clarkia* sp.	clarkia	DCSS
Orobanchaceae	*Castilleja affinis*	Indian paintbrush	DCSS
	Castilleja exserta	purple owl's clover	DCSS
Oxalidaceae	*Oxalis californica*	California wood-sorrel	DCSS
	*Oxalis pes-caprae**	Bermuda buttercup	CLOW
Papaveraceae	*Platystemon californicus*	cream-cups	DCSS
Phrymaceae	*Diplacus puniceus* [*Mimulus aurantiacus*]	sticky monkeyflower	CLOW, DCSS, NNG
Plantaginaceae	*Collinsia* sp.	Chinese houses	DCSS, SMC
	Plantago erecta	dwarf plantain	DCSS, DCSS-D
Polemoniaceae	*Eriastrum sapphirinum*	wool-star	DCSS
	Navarretia sp.	skunkweed	DCSS, DCSS-D
Polygonaceae	*Chorizanthe fimbriata*	fringed spineflower	DCSS, DCSS-D
	Chorizanthe sp.	spineflower	DCSS
	Eriogonum fasciculatum	buckwheat	DCSS, DCSS-D
	Pterostegia drymarioides	California thread-stem	DCSS
	Claytonia perfoliata ssp. *perfoliata*	miner's lettuce	DCSS
Primulaceae	*Dodecatheon clevelandii* ssp. *clevelandii*	Cleveland's shooting star	DCSS
Ranunculaceae	*Clematis pauciflora*	ropevine	DCSS, SMC
	Delphinium sp.	larkspur	DCSS
Rhamnaceae	*Ceanothus* sp.	Ceanothus	DCSS
	Rhamnus crocea	spiny redberry	DCSS, DCSS-D, SMC
Rosaceae	*Heteromeles arbutifolia*	toyon	CLOW, DCSS, SMC
Rubiaceae	*Galium angustifolium*	bedstraw	DCSS
	Galium nuttallii	bedstraw	CLOW, DCSS, DCSS-D
Salicaceae	*Salix laevigata*	red willow	SRF-D/SRW
	Salix lasiolepis	arroyo willow	SRF-D/SRW
Scrophulariaceae	*Scrophularia californica*	California figwort	DCSS
Selaginellaceae	*Selaginella bigelovii*	Bigelow's mossfern	DCSS
	Selaginella cinerascens†	ashy spike-moss	DCSS, DCSS-D

Family	Scientific Name	Common Name	HABITAT**
Solanaceae	*Datura wrightii*	jimson weed	NNG
	*Nicotiana glauca**	tree tobacco	DCSS-D
	Solanum sp.	nightshade	DCSS
Themidaceae	*Bloomeria crocea*	common goldenstar	DCSS

† Listed or sensitive species

* Non-native species

** SMC = southern mixed chaparral; CLOW = coast live oak woodland; DCSS = Diegan coastal sage scrub, DCSS-D = disturbed Diegan coastal sage scrub; NNV = Non-native vegetation, SRF-D/SRW = southern riparian forest (disturbed phase) and southern riparian woodland.

Appendix B

Animal Species Observed or Detected

Order	(Super)Family	Scientific Name	Common Name
INVERTEBRATES			
Aranea	--	--	unidentified spider
Diptera	--	--	unidentified fly
Hemiptera	Cicadoidea	--	unidentified cicada
Hymenoptera	Apidae	*Apis mellifera*	honeybee
		Bombus californicus	California bumble bee
		Bombus crotchii	Crotch's bumble bee
		Bombus melanopygus	black-tailed bumble bee
		Bombus vosnesenskii	yellow-faced bumble bee
Ixodida	Ixodoidea	--	unidentified tick
Lepidoptera	Lycaenidae	*Euphilotes bernardino*	bernardino blue
		--	unidentified blue butterfly
	Nymphalidae	*Limenitis lorquini*	Lorquin's admiral
	Papilionidae	*Papilio rutulus*	Western tiger swallowtail
	Pieridae	*Anthocharis sara*	sara orangetip
Siphonaptera	--	--	unidentified flea
VERTEBRATES			
Reptiles			
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	Western fence lizard
		Uta stansburiana	common side-blotched lizard
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
		Elanus leucurus†	white-tailed kite
Apodiformes	Trochilidae	*Calypte anna*	Anna's hummingbird
		Selasphorus sasin	Allen's hummingbird
Columbiformes	Columbidae	*Zenaida macroura*	mourning dove
Cuculiformes	Cuculidae	*Geococcyx californianus*	greater roadrunner
Galliformes	Odontophoridae	*Callipepla californica*	California quail
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Corvidae	*Aphelocoma californica*	California scrub-jay
		Corvus brachyrhynchos	American crow
		Corvus corax	common raven
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus psaltria	lesser goldfinch
	Hirundinidae	*Petrochelidon pyrrhonota*	cliff swallow
	Icteridae	*Icterus cucullatus*	hooded oriole
	Mimidae	*Mimus polyglottos*	Northern mockingbird
		Toxostoma redivivum	California thrasher
	Parulidae	*Geothlypis trichas*	common yellowthroat
		Oreothlypis celata	orange-crowned warbler
	Polioptilidae	*Polioptila caerulea*	blue-gray gnatcatcher
		Polioptila californica californica†	coastal California gnatcatcher
	Passerellidae	*Melospiza melodia*	song sparrow
		Melozone crissalis	California towhee
	Passerellidae	*Pipilo maculatus*	spotted towhee
		--	unidentified sparrow
	Sylviidae	*Chamaea fasciata*	wrentit

Order	(Super)Family	Scientific Name	Common Name
Passeriformes (cont.)	Troglodytidae	--	unidentified wren
		Thryomanes bewickii	Bewick's wren
	Turdidae	*Sialia mexicana*	Western bluebird
	Tyrannidae	*Empidonax difficilis*	Pacific-slope flycatcher
		Sayornis nigricans	black phoebe
Piciformes	Picidae	*Picoides nuttallii*	Nuttall's woodpecker
Mammals			
Artiodactyla	Cervidae	*Odocoileus hemionus*†	mule deer
Carnivora	Canidae	*Canis latrans*	coyote (scat)
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail
Rodentia	Cricetidae	*Neotoma* sp.	woodrat (nest)
	Sciuridae	*Otospermophilus beecheyi*	California ground squirrel

† Listed or sensitive species

Appendix C

Jurisdictional Delineation Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: El Camino Memorial Park City/County: San Diego/San Diego Sampling Date: 6 Dec 2016

Applicant/Owner: Clank & Green Associates/CGA-03 State: CA Sampling Point: 1

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: S3, T15S, R3W

Landform (hillslope, terrace, etc.): drainage/terrace Local relief (concave, convex, none): none Slope (%): 2%

Subregion (LRR): C: Mediterranian California Lat: 32.895412 Long: -117.181522 Datum: NAD 1983

Soil Map Unit Name: OhF; Olivenhain cobbly loam, 30-50% slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

PSSA: Palustrine, scrub-shrub, temporarily flooded
Non-wetland WUS; CDFW jurisdictional habitat; not a City wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30'X60')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 20'X20')			
1. Cortaderia selloana	50%	yes	FACU
2.			
3.			
4.			
5.			
	50% = Total Cover		
Herb Stratum (Plot size: 10'X10')			
1. Persicaria lapathifolia	2%	no	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2% = Total Cover		
Woody Vine Stratum (Plot size: 15'X15')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	2	x 2 =	4
FAC species		x 3 =	
FACU species	50	x 4 =	200
UPL species		x 5 =	
Column Totals:	52 (A)		204 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Upland vegetation present

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100%					SaCL	
3-9	10YR 4/2	80	5YR 3/4	20	RM	M	SaC	
9-18	10YR 4/2	70	7.5YR 4/6	30	RM	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ✓ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 11 in.

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 3 in.

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It rained 0.28 inch just over 1 week prior to today.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: El Camino Memorial Park City/County: San Diego/San Diego Sampling Date: 6 Dec 2016

Applicant/Owner: Clank & Green Associates/CGA-03 State: CA Sampling Point: 2

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: S3, T15S, R3W

Landform (hillslope, terrace, etc.): drainage/terrace Local relief (concave, convex, none): none Slope (%): 2%

Subregion (LRR): C: Mediterranian California Lat: 32.898537 Long: -117.181765 Datum: NAD 1983

Soil Map Unit Name: HrE2; Heuhuero loam, 15 to 30% slopes, eroded NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

PSSA: Palustrine, scrub-shrub, temporarily flooded
Non-wetland WUS; CDFW habitat; not a City wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 40'X60')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laeviagata	50%	yes	FACW
2.			
3.			
4.			
	50% = Total Cover		
Sapling/Shrub Stratum (Plot size: 30'X30')			
1. Cortaderia selloana	70	yes	FACU
2. Baccharis sarothroides	5	no	FACU
3. Artemisia californica	1	no	UPL
4.			
5.			
	76% = Total Cover		
Herb Stratum (Plot size: 10'X10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: 15'X15')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 20% % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	50	x 2 =	100
FAC species		x 3 =	
FACU species	75	x 4 =	300
UPL species	1	x 5 =	5
Column Totals:	126 (A)		405 (B)

Prevalence Index = B/A = 3.2

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Southern riparian woodland, disturbed

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100%					SaL	dense fine roots
6-16	10YR 3/2	62%	5YR 5/6	35%	RM	M	SaC	
			2.5Y 4/1	3%	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ✓ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 5 in.

Water Table Present? Yes ✓ No ___ Depth (inches): 9 in.

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 4 in.

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It rained 0.28 inch just over 1 week prior to today
Surface water in approximately 40% of herb plot

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: El Camino Memorial Park City/County: San Diego/San Diego Sampling Date: 6 Dec 2016

Applicant/Owner: Clank & Green Associates/CGA-03 State: CA Sampling Point: 3

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: S3, T15S, R3W

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10%

Subregion (LRR): C: Mediterranian California Lat: 32.898486 Long: -117.181929 Datum: NAD 1983

Soil Map Unit Name: HrE2; Heuhuero loam, 15 to 30% slopes, eroded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Upland location

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=15')			
1. Artemisia californica	70%	yes	FACU
2. Baccharis sarothroides	5	no	FACU
3. Salvia mellifera	5	no	UPL
4. Heteromeles arbutifolia	5	no	UPL
5. Eriogonum fasciculatum	3	no	UPL
	88%	= Total Cover	
Herb Stratum (Plot size: r=5')			
1. Bromus madritensis	10	yes	UPL
2. Stipa pulchra	3	yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	13	= Total Cover	
Woody Vine Stratum (Plot size: r=10')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40% % Cover of Biotic Crust 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 5	x 4 = 20
UPL species 96	x 5 = 480
Column Totals: 101 (A)	500 (B)

Prevalence Index = B/A = 4.95

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

Diegan coastal sage scrub

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/31	100%					SaL	dense fine roots
8-15	10YR 3/3	100%					SaC	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

No hydric soil indicators present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It rained 0.28 inch just over 1 week prior to today
No wetland hydrology indicators present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: El Camino Memorial Park City/County: San Diego/San Diego Sampling Date: 14 Dec 2016

Applicant/Owner: Clank & Green Associates/CGA-03 State: CA Sampling Point: 4

Investigator(s): W.L. Sward Section, Township, Range: S3, T15S, R3W

Landform (hillslope, terrace, etc.): drainage Local relief (concave, convex, none): none Slope (%): 1%

Subregion (LRR): C: Mediterranian California Lat: 32.895006 Long: -117.181206 Datum: NAD 1983

Soil Map Unit Name: OhF; Olivenhain cobbly loam, 30-50% slopes NWI classification: PSSA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

PSSA: Palustrine, scrub-shrub, temporarily flooded
Wetland WUS; CDFW jurisdictional habitat; not a City wetland,due to artificial hydrology source

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 50'X50')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	50%	yes	FACW
2.			
3.			
4.			
	50% = Total Cover		
Sapling/Shrub Stratum (Plot size: 30'X30')			
1. Salix lasiolepis	30%	yes	FACW
2. Cortaderia selloana	25%	yes	FACU
3.			
4.			
5.			
	55% = Total Cover		
Herb Stratum (Plot size: 10'X10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: 20'X20')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

Southern riparian woodland. Shrub/tree plots downstream of herb plot only willows; upstream of herb plot these have an understory of pampas grass

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	10YR 4/2	100%					SaL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ✓ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

Soil profile dense cobbly-difficult digging and not possible to retrieve an un-worked soil ped due to small soil volume soil saturation Meets NTCHS's definition of a hydric soil (saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part). Has been saturated for at least 3 weeks; hydric soils observed nearby (Sample Point 1)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): _____

Water Table Present? Yes ✓ No ___ Depth (inches): 4 in.

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 0 in.

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It rained 0.28 inch over 3 weeks ago.

Appendix D

Sensitive Species with Potential to Occur

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
PLANTS				
MSCP Narrow Endemic Plants				
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE CRPR 1B.1 MSCP Covered	Annual herb. Found in grassy openings in chaparral or sage scrub, or near vernal pools, with friable or broken clay soils. Elevation below 3,281 ft. Flowering period Apr–Jun.	**None**. No vernal pools are present on site, suitable soils not present, and species was not observed during survey. Nearest CNDDB occurrence approximately 1.9 miles to north within Los Peñasquitos Canyon Preserve.
Agave shawii var. *shawii*	Shaw's agave	--/-- CRPR 2B.1 MSCP Covered	Shrub. Occurs in coastal bluff scrub and coastal sage scrub. Elevation below 328 ft. Flowering period Sept-May.	**Presumed Absent**. Conspicuous species that would have been observed if present.
Ambrosia pumila	San Diego ambrosia	FE/-- CRPR 1B.1 MSCP Covered	Small perennial herb. Occurs on loam or clay soils. Found in native grassland, valley bottoms, dry drainages, stream floodplain terraces, and vernal pool margins. Also can occur on slopes, disturbed places, and in coastal sage scrub or chaparral. Elevation range 65–1,360 ft. Flowering period Apr–Oct.	**Low**. Species not observed during survey. Nearest CNDDB occurrence 2.4 miles to northeast within Los Peñasquitos Canyon Preserve.
Aphanisma blitoides	aphanisma	--/-- CRPR 1B.2 MSCP Covered	Annual herb. Occurs in coastal bluff scrub, coastal dunes, and sandy coastal scrub. Elevation below 656 ft. Flowering period Mar-Jun.	**None**. Suitable habitat does not occur.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE CRPR 1B.1 MSCP Covered	Annual herb. Occurs in coastal dunes and sandy places along the coast. Elevation below 66 ft. Flowering period Mar-Jun.	**None**. Suitable habitat does not occur.
Baccharis vanessae	Encinitas baccharis	FT/SE CRPR 1B.1 MSCP Covered	Shrub. Mature but relatively low-growing chaparral is primary habitat; also found in southern maritime and southern mixed chaparrals. Elevation range 197-984 ft. Flowering period Aug-Nov.	**None**. Suitable low-growing habitat does not occur, and species is a perennial shrub that would have been observed if present.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Cylindropuntia californica var. *californica* (*Opuntia parryi* var. *serpentina*)	snake cholla	--/-- CRPR 1B.1 MSCP Covered	Perennial herb (stem succulent). Occurs in chaparral and Diegan coastal sage scrub. Elevation below 820 ft. Flowering period Apr-Jul.	**Presumed Absent**. Conspicuous species that would have been observed if present.
Deinandra conjugens (*Hemizonia conjugens*)	Otay tarplant	FT/SE CRPR 1B.1 MSCP Covered	Annual herb. Occurs in coastal sage scrub and grassland habitats in southern San Diego County. Elevation range 66-984 ft. Flowering period May-Jun.	**None**. Nearest CNDDB occurrence approximately 14.5 miles to southeast.
Dudleya brevifolia (*Dudleya blochmaniae* ssp *brevifolia*)	short leaved dudleya	--/SE CRPR 1B.1 MSCP Covered	Perennial herb. Occurs in open areas and sandstone bluffs of chamise chaparral or Torrey pine forest. Elevation below 820 ft. Flowering period Apr-May.	**None**. Suitable habitat does not occur.
Dudleya variegata	variegated dudleya	--/-- CRPR 1B.2 MSCP Covered	Perennial herb. Occurs in chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, and vernal pools. Elevation below 984 ft. Flowering period Apr-Jun.	**Low**. Species not observed during survey. Nearest CNDDB occurrences approximately 3.6 miles to west and 3.7 miles to southeast.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE CRPR 1B.1 MSCP Covered	Annual/perennial herb. Occurs in mesic areas on coastal scrub, native grassland, and vernal pools. Elevation range 65–2,035 ft. Flowering period Apr–Jun.	**None**. Suitable habitat does not occur.
Navarretia fossalis	spreading navarretia	FT/-- CRPR 1B.1 MSCP Covered	Annual herb. Occurs in vernal pools in chenopod scrub, marshes and swamps, and playas. Elevation range 95–2,150 ft. Flowering period Apr–Jun.	**None**. Suitable habitat does not occur.
Orcuttia californica	California Orcutt grass	FE/SE CRPR 1B.1 MSCP Covered	Annual herb. Occurs in vernal pools. Known from fewer than 20 occurrences. Elevation range 45–2,165 ft. Flowering period Apr–Aug.	**None**. Suitable habitat does not occur.
Pogogyne abramsii	San Diego mesa mint	FE/SE CRPR 1B.1 MSCP Covered	Small annual herb. Occurs within vernal pools in grasslands, chamise chaparral, and coastal sage scrub on mesas. Elevation range 328–656 ft. Flowering period Mar-Jul.	**None**. Suitable habitat does not occur.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Pogogyne nudiuscula	Otay Mesa mint	FE/SE CRPR 1B.1 MSCP Covered	Small annual herb. Occurs within vernal pools. Elevation range 328–820 ft. Flowering period May-Jul.	**None**. Suitable habitat does not occur.
Other Plants				
Adolphia californica	California adolphia	--/-- CRPR 2B.1	Perennial shrub. Occurs in clay soils, chaparral, coastal scrub, and valley and foothill grassland. Elevation below 1,312 ft. Flowering period Dec–May.	**Presumed Absent**. Conspicuous species was not observed during survey.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/-- CRPR 1B.1 MSCP Covered	Perennial shrub. Occurs in relatively open, coastal chaparral. At occasional inland sites it occurs in denser mixed chaparral vegetation. Elevation below 328 ft. Flowering period Dec-Feb.	**Presumed Absent**. Limited chaparral on site is dense, and conspicuous species was not observed during survey.
Artemisia palmeri	San Diego sagewort	--/-- CRPR 4.2	Medium shrub. Occurs along streams in coastal sage scrub and chaparral. Elevation below 1,968 ft. Flowering period May – Sep, but identifiable year-round by leaves.	**Presumed Present**. Twenty-two individuals were observed within Diegan coastal sage scrub along the west side of an unnamed tributary to Carroll Canyon Creek.
Atriplex pacifica	south coast saltscale	--/-- CRPR 1B.2	Annual herb. Occurs on xeric coastal bluff scrub in open areas and alkaline flats. Elevation below 984 ft. Flowering period Mar - Oct.	**None**. Suitable habitat does not occur.
Bloomeria clevelandii (*Muilla clevelandii*)	San Diego goldenstar	--/-- CRPR 1B.1 MSCP Covered	Perennial bulbiferous herb. Occurs in valley grasslands, particularly near mima mound topography or in the vicinity of vernal pools, on clay soils. Elevation below 328 ft. Flowering period Apr – May.	**None**. Suitable habitat does not occur.
Brodiaea orcuttii	Orcutt's brodiaea	--/-- CRPR 1B.1 MSCP Covered	Perennial bulbiferous herb. Occurs on mesic or clay soils in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, native grassland, and vernal pools. Elevation range 95–5,550 ft. Flowering period May–Jul.	**None**. Suitable habitat does not occur.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Ceanothus cyaneus	Lakeside ceanothus	--/-- CRPR 1B.2 MSCP Covered	Perennial shrub. Occurs in inland mixed chaparral, specifically in the region from Crest to the Lakeside foothills. Elevation range 148–3,445 ft. Flowering period Apr–Jun.	**Presumed Absent**. Species not observed during survey.
Ceanothus verrucosus	wart-stemmed ceanothus	--/-- CRPR 2B.2 MSCP Covered	Perennial evergreen shrub. Occurs in coastal chaparral intermixed with chamise. Elevation below 1,148 ft. Flowering period Jan-Apr.	**Presumed Absent**. Conspicuous species not observed during survey.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	--/-- CRPR 1B.1	Annual herb. Occurs in open Diegan coastal sage scrub, typically in proximity to moist ocean breezes. Elevation below 328 ft. Flowering period Jan-Aug.	**Low**. Species not observed during survey. Nearest CNDDB occurrence is approximately 3 miles to the northwest. Almost all known occurrences are close to the ocean, which the study area is not.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	--/-- CRPR 1B.2	Annual herb. Occurs in chaparral, coastal scrub, meadows and seeps, native grassland, and vernal pools, often in clay soils. Elevation range 95–5,020 ft. Flowering period Apr–Jul.	**Presumed Absent**. Species not observed during survey.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	--/-- CRPR 1B.2	Perennial shrub. Occurs in chaparral and cismontane woodland. Elevation range 95–2,590 ft. Flowering period Apr–Jun.	**Presumed Present**. Two individuals were observed bordering the existing cemetery, in a patch of coast live oak woodland adjacent to Diegan coastal sage scrub, obscured by a native vine.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	--/-- CRPR 1B.1	Perennial herb. Occurs in coastal sage scrub. Elevation below 8,530 ft. Flowering period Jun-Sept.	**Presumed Absent.** Species not observed during survey. Sand aster (*Corethrogyne filaginifolia*) flowers were present during the summer plant survey, and the observed species was determined not to be this variety. Nearest known occurrence approximately 2.2 miles to the northwest.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	--/-- CRPR 1B.1 MSCP Covered	Perennial herb. Occurs on sandy soils in coastal bluff scrub, openings in maritime chaparral, and coastal sage scrub. Elevation below 8,530 ft. Flowering period May-Sept.	**Presumed Absent.** Species not observed during survey. Sand aster (*Corethrogyne filaginifolia*) flowers were present during the summer plant survey, and the observed species was determined not to be this variety. Nearest known occurrence approximately 1.6 miles to the northwest.
Dudleya brevifolia	short-leaved dudleya	--/SE CRPR 1B.1	Perennial herb. Occurs in open areas and sandstone bluffs in chamise chaparral or Torrey pine forest. Elevation below 820 ft. Flowering period Apr-May.	**None**. Suitable habitat does not occur.
Erysimum ammophilum	sand-loving wallflower	--/-- CRPR 1B.2 MSCP Covered	Perennial herb. Occurs on coastal dunes and coastal strand. Elevation below 164 ft. Flowering period Feb–Jun.	**None.** Suitable habitat does not occur.
Ferocactus viridescens	San Diego barrel cactus	--/-- CRPR 2B.1 MSCP Covered	Perennial stem succulent. Optimal habitat for this cactus appears to be Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Occurs in chaparral, coastal sage scrub, valley and foothill grassland, and vernal pools. Elevation range 33-192 ft. Flowering period May – June.	**Presumed Present**. A total of 187 individuals were observed in three general areas within Diegan coastal sage scrub in the study area: in the northwest corner, in the southwest corner, and in the central portion of the study area, just east of the unnamed tributary to Carroll Canyon Creek.
Geothallus tuberosus	Campbell's liverwort	--/-- CRPR 1B.1	Ephemeral liverwort. Occurs on mesic soil, in coastal scrub and vernal pools. Elevation range 30–1,970 ft.	**Presumed Absent**. Species not observed during survey.
Harpagonella palmeri	Palmer's grapplinghook	--/-- CRPR 4.2	Annual herb. Occurs on clay soil, in open areas in chaparral, coastal scrub, and native grassland. Elevation range 65–3,135 ft. Flowering period Mar–May.	**None**. Suitable habitat does not occur.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	--/-- CRPR 1B.1	Perennial herb. Occurs in coastal sage scrub, chaparral. Elevation below 197 ft. Flowering period Mar-Dec.	**Low**. Species not observed during survey. The lowest areas on site are near the upper limit of the known elevation range for this species.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	--/-- CRPR 1B.2	Shrub. Occurs in chaparral and sandy coastal sage scrub, often in disturbed areas. Elevation below 656 ft. Flowering period Apr-Nov.	**Presumed Present**. A total of 699 individuals were observed scattered in the northern and central parts of the study area.
Iva hayesiana	San Diego marsh-elder	--/-- CRPR 2B.2	Perennial herb. Occurs along stream courses, in marshes, swamps, and playas. Elevation below 900 ft. Flowering period Apr – Oct.	**Presumed Absent**. Conspicuous species not observed during survey.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	--/-- CRPR 1B.1	Annual herb. Occurs in alkali sinks, coastal salt marshes, freshwater wetlands, and wetland-riparian communities, specifically salt-marsh, vernal pools, and coastal habitats. Elevation below 3,280. Flowering period Feb-Jun.	**Low**. Species not observed during survey. The study area lacks the alkaline soils typically associated with this species.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	--/-- CRPR 4.3	Annual herb. Occurs in openings in chaparral and coastal scrub. Typically in relatively dry, exposed locales. Elevation range 0–2,905 ft. Flowering period Jan–Jul.	**High**. Species not observed during survey, although previous year's dry *Lepidium* sp. was present. Nearest recorded occurrence approximately 0.8 mile to the south.
Monardella viminea	willowy monardella	FE/SE CRPR 1B.1 MSCP Covered	Perennial herb. Occurs in riparian scrub, usually at sandy locales in seasonally dry washes. Generally, there is no canopy cover, and river cobbles may lie in close proximity. Elevation below 1,312 ft. Flowering period Jun–Aug.	**Low**. Species not observed during survey. The riparian area within the study area has canopy cover.
Quercus dumosa	Nuttall's scrub oak	--/-- CRPR 1B.1	Perennial evergreen shrub. Occurs in chaparral and coastal sage scrub in sandy and clay loam habitat. Elevation below 656 ft. Flowering period Feb – Mar.	**Presumed Absent**. Conspicuous species not observed during survey.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Selaginella cinerascens	ashy spike moss	--/-- CRPR 4.1	Rhizomatous fern. Occurs in chaparral and coastal sage scrub. Elevation below 1,804 ft.	**Presumed Present.** Patches of this species occur within Diegan coastal sage scrub within the study area, MHPA, and mitigation area
Senecio aphanactis	chaparral ragwort	--/-- CRPR 2B.1	Annual herb. Occurs in foothill woodlands and coastal sage scrub on alkali flats. Elevation range 33-1,804 ft. Flowering period Jan- Apr.	**Low**. Species not observed during survey. The site lacks alkaline conditions and the nearest recorded observations are approximately 3 miles away.
Sidalcea neomexicana	salt spring checkerbloom	--/-- CRPR 2B.2	Perennial herb. Occurs in alkaline springs and marshes. Elevation range generally below 4,921 ft. Flowering period Mar-Jun.	**None**. Suitable habitat does not occur.
Sphaerocarpos drewei	bottle liverwort	--/-- CRPR 1B.1	Ephemeral liverwort. Occurs on openings in chaparral and coastal scrub. Elevation range 295–1,970 ft.	**Low**. No liverwort species were observed during survey.
Texosporium sancti-jacobi	woven-spored lichen	--/-- CRPR 3	Lichen. Occurs on soil, small mammal pellets, dead twigs, and on *Selaginella* spp. in openings in chaparral. Elevation range 195–2,165 ft.	**Presumed Absent**. Although *Selaginella* was observed during surveys, this species was not observed.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
ANIMALS				
Invertebrates				
Bombus crotchii	Crotch's bumble bee	SCE	Occurs in southwestern California from the Central Valley south to the U.S./Mexico border. Inhabits open grassland and scrub habitats near the coast. Primarily nests underground, generally in abandoned rodent nests. Forages on a wide variety of flowers, but a short tongue renders it best suited to open flowers with short corollas. Most commonly observed on flowering species in the Fabaceae, Asteraceae, and Lamiaceae families. Occurrence has also been linked to habitats containing *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia, Salvia, Antirrhinum, Clarkia, Dendromecon, Eschscholzia, Eriogonum, Cirsium, Acmispon, Euthamia, Ehrendorferia,* and *Trichostema* genera.	**Presumed Present.** One female bee was observed on black sage (*Salvia mellifera*) within the project area. It was suspected to be a queen. No nests were observed. The nearest known occurrence is from 1983, approximately 3.3 miles to the northwest. The project impact and mitigation areas contain scrub habitat and a variety of food sources to support this species, including miniature lupine (*Lupinus bicolor*), lupine (*Lupinus* sp.), pincushion (*Chaenactis* sp.), buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), and black sage. California ground squirrel (*Otospermophilus beecheyi*) was observed on site and may make holes for nesting.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/-- MSCP Covered	Occurs in seasonally astatic pools which occur in tectonic swales or earth slump basins and other areas of shallow, standing water often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral.	**None.** Vernal pools do not occur on site.
Euphydryas editha quino	Quino checkerspot butterfly	FE/--	Occurs in open areas with low-growing, sparse vegetation that includes particular larval host plant species (principally *Plantago erecta,* but also *Antirrhinum coulterianum*, and *Cordylanthus rigidus*).	**Low**. Host plants were observed on site; however, the nearest known occurrence is approximately 7.8 miles to the southeast, and the site is located outside of the USFWS survey area for this species.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Amphibians and Reptiles				
Aspidoscelis hyperythra	orange-throated whiptail	--/-- WL MSCP Covered	Occurs in open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of insects, spiders, or scorpions.	**High**. Suitable coastal sage scrub, chaparral, and woodland habitat present. Nearest known occurrence within the El Camino Memorial Park.
Aspidoscelis tigris stejnegeri	coastal whiptail	--/-- SSC	Occurs in coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (*Reticulitermes* sp.).	**Low**. Suitable open shrub habitats present. Nearest known occurrence approximately 1.4 miles to the southwest.
Phrynosoma blainvillii	coast horned lizard	--/-- SSC MSCP Covered	Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* sp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**High**. Suitable coastal sage scrub, chaparral, and woodland habitat present. Nearest known occurrence within the El Camino Memorial Park.
Spea hammondii	western spadefoot	--/-- SSC	Open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; require temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs or crayfish.	**Not Expected**. Temporary pools not present.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Birds				
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	--/-- WL MSCP Covered	Hillsides, with grassland, sage scrub, or chaparral.	**High**. Suitable habitat present.
Artemisiospiza belli belli	Bell's sage sparrow	--/-- BCC/WL	Chaparral and sage scrub with modest leaf-litter on the ground (e.g., after a fire or in gabbro-based soil areas).	**High**. Suitable habitat present.
Charadrius alexandrinus nivosus	western snowy plover	FT/-- BCC/SSC MSCP Covered	Coastal beaches, sand dunes, salt flats, river mouths, and estuaries. Also occur in open flats near brackish or saline lakes, lagoons, seasonal water courses, salt-works and depressions. Usually prefer sand, silt or dry mud with even surface, avoiding rocky or broken ground.	**Not Expected**. Suitable habitat does not occur, and site located away from the coast.
Elanus leucurus	white-tailed kite	--/-- FP	Grassland, agriculture with nearby woodland for nesting.	**Presumed Present**. Observed flying over the project site during a single survey.
Laterallus jamaicensis coturniculus	California black rail	--/ST BCC/FP MSCP Covered	Occur in high coastal marshes to freshwater marshes along the lower Colorado River. Along the coast, favors marshland with unrestricted tidal influence (estuarine, intertidal, emergent, and regularly flooded). Primarily nest in pickleweed.	**Not Expected**. Suitable habitat does not occur, and site located away from the coast.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	--/SE MSCP Covered	Generally found in salt marshes. Nests on the ground in natural depression or scrape, primarily in pickleweed habitat at the higher levels of the marsh, above the reach of the highest spring tides.	**Not Expected**. Suitable habitat does not occur, and site is located away from the coast.
Polioptila californica californica	coastal California gnatcatcher	FT/-- SSC MSCP Covered	Occurs in coastal sage scrub and other low scrub	**Presumed Present**. Coastal California gnatcatcher was seen in two different locations between 2018 and 2021 and can be expected to move around the survey area.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Rallus obsoletus levipes (*Rallus longirostris* ssp. *levipes*)	light-footed Ridgway's rail (Light-footed clapper rail)	FE/SE FP	Occurs in coastal marshes, lagoons and maritime environments with dense vegetation and shallow waters.	**Not Expected**. Suitable habitat does not occur, and site is located away from the coast.
Sternula antillarum browni	California least tern	FE/SE FP MSCP Covered	Nest in colonies on relatively open beaches kept free of vegetation by natural scouring from tidal action. Found along the Pacific Coast of California.	**Not Expected**. Suitable habitat does not occur, and site is located away from the coast.
Vireo bellii pusillus	least Bell's vireo	FE/SE MSCP Covered	Riparian areas with dense ground cover and stratified canopy, prefers willows. May occur in tamarisk scrub if preferred habitat lacking.	**Not Expected**. Suitable habitat does not occur.
Mammals				
Eumops perotis californicus	western mastiff bat	--/-- SSC	Rocky areas, cliff faces, known to roost in buildings. Found in a variety of habitats, from desert scrub to chaparral to oak woodland and into the ponderosa pine belt.	**Not Expected**. Must have significant rock features offering suitable roosting habitat. Suitable habitat not present.
Lasiurus blossevillii	western red bat	--/-- SSC	Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. Possible association with intact riparian habitat (particularly willows, cottonwoods, oaks, walnuts, and sycamores).	**High**. May roost in oak trees along riparian corridor.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	--/-- SSC	Primarily open scrub with short grasses in arid regions. Occur in desert or dune, grassland, and chaparral habitats. May occur in grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.	**High**. Suitable habitat present.

Species Name	Common Name	Status[2]	Habit, Ecology and Life History	Potential to Occur[3]
Neotoma lepida intermedia	San Diego desert woodrat	--/-- SSC	Chaparral and sage scrub, often where succulent vegetation may be used as a water source. Build large, stick nests in rock outcrops, around clumps of cactus or yucca, and in lower tree branches.	**Presumed Present**. Suitable chaparral, sage scrub, and succulent plants present. Stick nests observed; however, not possible to identify to subspecies without trapping surveys.
Odocoileus hemionus	mule deer	--/-- MSCP Covered	Coastal sage scrub, riparian and montane forests, chaparral, grasslands, croplands, and open areas if there is at least some scrub cover present. Crepuscular activity and movements are along routes that provide the greatest amount of protective cover.	**Presumed Present**. Observed during surveys.

[1] Analysis includes sensitive species reported within a 3-mile radius of the project site, all City MSCP Narrow Endemic species, and Crotch's bumblebee that was requested to be analyzed.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; BCC USFWS Birds of Conservation Concern; FP = Fully Protected; SCE = State Candidate Endangered; SSC = State Species of Special Concern; WL = CDFW Watch List; MSCP = City Multiple Species Conservation Program Subarea Plan.
CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3] Potential to Occur is assessed as follows. **None**: Species is either sessile (*e.g.* plants) or so limited to a particular habitat that it cannot disperse across unsuitable habitat (*e.g.* aquatic organisms), and habitat suitable for its survival does not occur on the project site; **Not Expected**: Species moves freely and might disperse through or across the project site, but suitable habitat for residence or breeding does not occur on the project site (includes species recorded during surveys but only as transients); **Low**: Suitable habitat is present on the project site but of low quality or small extent and no sign of the species was observed during surveys, however the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent for residence or breeding is present on the project site and the species has been recorded recently on or near the project site, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during biological surveys for the current project and is assumed to occupy the project site; **Presumed Absent**: Suitable habitat is present on the project site but focused/protocol surveys for the species were negative.

Appendix E

Crotch's Bumble Bee Survey Information

Methods

HELIX Environmental Planning, Inc. (HELIX) conducted focused surveys for Crotch's bumble bee (*Bombus crotchii*) at the request of the City of San Diego (Table 1, *HELIX Survey Information*). The habitat assessment included mapping the vegetation on-site according to the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), determining the species composition within vegetation alliances, and collecting a list of flowering species. HELIX's survey method is based on the California Department of Fish and Wildlife (CDFW) *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* issued June 6, 2023, which calls for an initial Crotch's bumble bee habitat assessment followed by three bumble bee surveys. The three surveys were spaced two to four weeks apart during the Colony Active Period (April through August) and when floral resources were present in 2024. The survey focused on the 5.3-acre impact area and 5.2-acre mitigation areas, meeting the recommended survey rate of no more than three acres per hour, with meandering transects through the remainder of the study area. Bumble bee species observed during the survey were identified, but were not captured or handled to avoid potential take. Crotch's bumble bee location and observation details were documented, including photographs. UC-Riverside bumble bee expert Dr. Douglas Yanega confirmed species identification for all the photos taken of bumble bees.

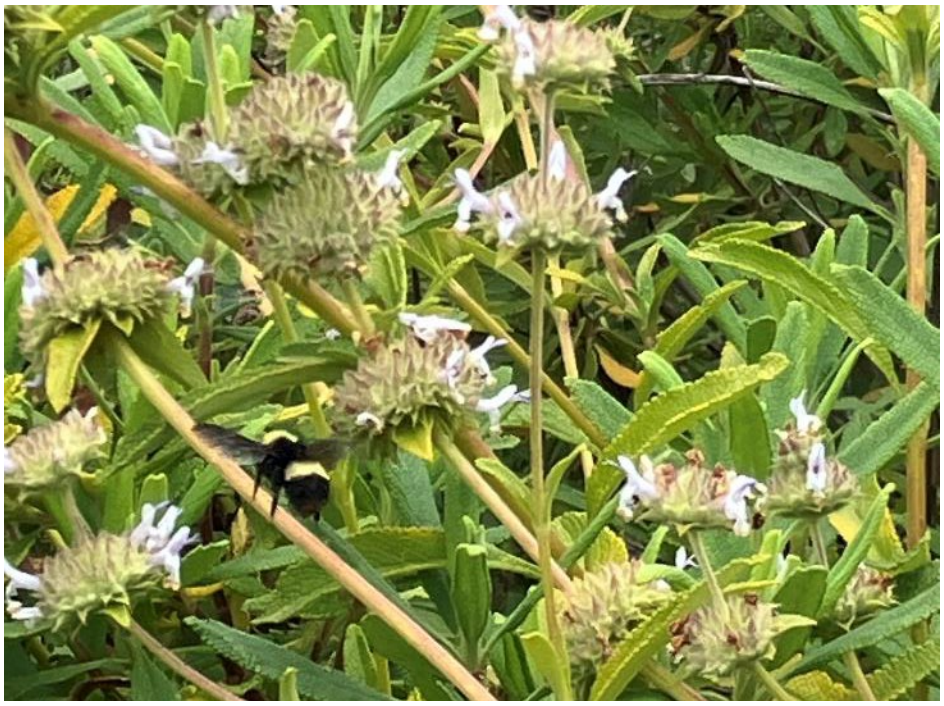
Table 1
HELIX SURVEY INFORMATION

Survey Date	Personnel	Survey Conditions[1]	Purpose	Results
5/22/2024	Beth Ehsan	1000am, 63°F, 70% clouds 0300pm, 70°F, 20% clouds	Crotch's bumble bee (*Bombus crotchii*) habitat assessment	Suitable habitat present
5/24/2024	Angelica Grunloh	0900am, 61°F, wind 1-3 mph, 100% clouds 0445pm, 64°F, wind 1-3 mph, 90% clouds	Crotch's bumble bee first survey	One Crotch's bumble bee
6/14/2024	Angelica Grunloh	0830am, 64°F, wind 1-3 mph, 30% clouds 0345pm, 73°F, wind 1-3 mph, 0% clouds	Crotch's bumble bee second survey	Negative
7/8/2024	Alexander Walsh	0900am, 70°F, wind 4 mph, 100% clouds 0300pm, 85°F, wind 5-10 mph, 15% clouds	Crotch's bumble bee third survey	Negative

[1] F = Fahrenheit, mph = miles per hour

SURVEY RESULTS

One Crotch's bumble bee was observed on black sage (*Salvia mellifera*) within the project area during the first of three focused surveys for the species (May 24, 2024). (BTR Figure 9, *Crotch's Bumble Bee Habitat Assessment and Survey Results*). No nests were observed. The second and third surveys were negative. A photograph of the bee is included below.



Habitat Assessment Results

This bee inhabits open grasslands and scrub habitats. It primarily nests underground and forages on a wide variety of flowers, but a short tongue renders it best suited to open flowers with short corollas. In Southern California, it is most commonly observed on flowering species in the Asclepias, Astragalus, Chaenactis, Eschscholzia, Lupinus, Phacelia, and Salvia genera. One of these species, black sage, was abundant within the project site and mitigation area, having up to 40 percent cover in the *Artemesia californica-Salvia mellifera* association (Table 2, *Species Composition by Mapped Alliance*). Figure 9 shows the results of the habitat assessment. Preferred plants that were in flower during the habitat assessment and surveys were pincushion (*Chaenactis glabriuscula*), black sage, and white sage (*Salvia apiana*; Table 3, *Flowering Plants by Survey*). Potential nesting resources for Crotch's bumble bee include animal burrows and bunch grasses. Nectaring and nesting resources were abundant in undeveloped areas adjacent to the site, but not in adjacent development (e.g., the existing cemetery and adjacent office buildings).

Although Crotch's bumble bee was observed at only one location within the Phase 2 project footprint, the majority of the study area, including the mitigation area, is considered suitable habitat. The impact and mitigation areas occur in close proximity to each other, within flying distance of Crotch's bumble bee. Both areas contain abundant preferred nectar sources (i.e., black and white sage and pincushion), other flowering plants for nectaring, and potential nesting resources. The undisturbed Diegan coastal sage scrub/*Artemisia californica-Salvia mellifera* Association within the study area is considered most suitable for Crotch's bumble bee, followed by the disturbed Diegan coastal sage scrub/*Artemisia californica-Salvia mellifera* Association. The southern mixed chaparral/*Xylococcus bicolor-Quercus (berberidifolia)* Association and coast live oak woodland/*Quercus agrifolia* Alliance within the study area also support the species' preferred nectar resources and are considered suitable. The remaining areas, including non-native grassland/*Bromus diandrus* Semi-natural Stand Type, disturbed Diegan coastal sage scrub/*Deinandra fasciculata* Alliance, non-native vegetation/*Cortaderia selloana* Alliance, southern

riparian woodland/*Salix lasiolepis* Association, and developed land, have lesser or no suitability for Crotch's bumble bee based on HELIX's current knowledge of the species.

Table 2
SPECIES COMPOSITION BY MAPPED ALLIANCE

Scientific Name[1]	Common Name	Percent Cover[2]
***Quercus agrifolia* Alliance**		
Quercus agrifolia var. *agrifolia*	coast live oak	80
unidentified grasses*	unidentified grasses	10
*Olea europaea**	olive	5
Quercus berberidifolia	scrub oak	5
Cortaderia sp.*	pampas grass	3
Rhus integrifolia	lemonadeberry	3
Toxicodendron diversilobum	poison oak	3
Salvia mellifera	**black sage**	**3**
Galium nuttallii	bedstraw	2
Mimulus aurantiacus (*Diplacus puniceus*)	monkey-flower	2
Opuntia littoralis	coastal prickly pear	**2**
Rhamnus crocea	redberry	2
Ribes speciosum	fuchsia-flowered gooseberry	2
Stipa sp.	needlegrass	2
***Artemisia californica-Salvia mellifera* Association[3]**		
Salvia mellifera	**black sage**	**40/18**
Artemisia californica	California sagebrush	25/13
Eriogonum fasciculatum	**buckwheat**	**10/6**
Rhus integrifolia	lemonadeberry	4/4
Acmispon glaber	**deerweed**	**3/<2**
*Bromus diandrus**	common ripgut grass	3/0
Diplacus puniceus	sticky monkeyflower	3/2.5
Eriophyllum confertiflorum	golden-yarrow	3/3
Selaginella cinerascens†	ashy spike-moss	2.5/3
Eriodictyon crassifolium	felt-leaf yerba santa	2/<2
Malosma laurina	laurel sumac	2/<2
unidentified grasses*	unidentified grasses	2/4
Baccharis sarothroides	broom baccharis	<2/7
*Bromus madritensis**	foxtail chess	<2/2
*Hirschfeldia incana**	mustard	<2/4
*Olea europaea**	olive	<2/18
***Deinandra fasciculata* Alliance**		
Deinandra fasciculata	fascicled tarplant	30
*Festuca myuros**	fescue	30
*Centaurea melitensis**	tocalote	20
Navarretia sp.	skunkweed	5
Zeltnera venusta	canchalagua	5
Artemisia californica	California sagebrush	2
*Bromus madritensis**	foxtail chess	2
Calochortus splendens	lilac mariposa lily	2

Scientific Name[1]	Common Name	Percent Cover[2]
***Bromus diandrus* Semi-natural Stand Type**		
*Bromus diandrus**	common ripgut grass	50
Amsinckia intermedia	rancher's fiddleneck	20
*Carduus pycnocephalus**	Italian thistle	5
Diplacus puniceus	monkey-flower	5
Salvia mellifera	**black sage**	**5**
Croton setiger	turkey-mullein	3
Datura wrightii	jimson weed	2
Encelia californica	bush sunflower	2
***Cortaderia selloana* Alliance**		
Cortaderia sp.*	pampas grass	70
Cyperus eragrostis	tall flatsedge	5
***Xylococcus bicolor-Quercus* (*berberidifolia*) Association**		
Quercus berberidifolia	scrub oak	15
Xylococcus bicolor	mission manzanita	10
Heteromeles arbutifolia	toyon	5
Rhus integrifolia	lemonadeberry	5
Salvia mellifera	**black sage**	**5**
Salix laevigata	red willow	2
Salix lasiolepis	arroyo willow	2
***Salix lasiolepis* Association**		
Salix lasiolepis	arroyo willow	50
Cortaderia sp.*	pampas grass	15
Salix laevigata	red willow	15

[1] Plants in genera most commonly associated with Crotch's bumble bee (Acmispon, Antirrhinum, Asclepias, Astragalus, Chaenactis, Cirsium, Clarkia, Cordylanthus, Dendromecon, Ehrendorferia, Eriogonum, Eschscholzia, Euthamia, Hypericum, Keckiella, Lantana, Lupinus, Monardella, Phacelia, Salvia, Trichostema, and Vicia) shown in **bold**.

[2] Table includes plant species observed at two percent cover or greater.

[3] The Artemisia californica-Salvia mellifera Association includes both Diegan coastal sage scrub and disturbed Diegan coastal sage scrub areas. Percentages are shown for Diegan coastal sage scrub first and disturbed Diegan coastal sage scrub second.

Table 3
FLOWERING PLANTS BY SURVEY

Scientific Name	Common Name	Survey Numbers in Bloom[1]
Acmispon glaber	**deerweed**	**HA, 1, 2, 3**
Amsinckia intermedia	rancher's fiddleneck	HA
*Anagallis arvensis**	scarlet pimpernel	1, 2
Artemisia californica	California sagebrush	3
Bloomeria crocea	common goldenstar	HA
*Brassica nigra**	black mustard	1, 2
Calochortus splendens	lilac mariposa lily	HA, 1, 2
*Carduus pycnocephalus**	Italian thistle	HA, 1
Castilleja affinis	Indian paintbrush	HA, 1, 2
Castilleja exserta	purple owl's clover	1
*Centaurea melitensis**	tocalote	1, 2
Chaenactis glabriuscula	**pincushion**	**HA, 2**

Scientific Name	Common Name	Survey Numbers in Bloom[1]
Chorizanthe fimbriata	fringed spineflower	HA, 1, 2
***Clarkia* sp.**	**clarkia**	**2**
Claytonia perfoliata	miner's lettuce	HA
Collinsia sp.	Chinese houses	2
Croton setiger	turkey-mullein	3
Datura wrightii	jimson weed	3
Deinandra fasciculata	fascicled tarplant	HA, 1, 2, 3
Delphinium sp.	larkspur	HA, 2
Dichelostemma capitatum	blue dicks	HA, 1
Diplacus puniceus	monkey-flower	HA, 1, 2, 3
Dudleya lanceolata	coastal dudleya	2
Dudleya pulverulenta	chalk-lettuce	2, 3
Encelia californica	California encelia	HA, 1, 2
Eriastrum sapphirinum	wool-star	HA
Erigeron foliosus	leafy daisy	HA, 2
Eriogonum fasciculatum	**California buckwheat**	**HA, 1, 2, 3**
Eriophyllum confertiflorum	golden-yarrow	HA, 1, 2
Ferocactus viridescens†	San Diego barrel cactus	HA
*Foeniculum vulgare**	fennel	3
Galium angustifolium	bedstraw	1, 2
Galium nuttallii	bedstraw	1, 2
Gutierrezia sarothrae	San Joaquin matchweed	2
Heteromeles arbutifolia	toyon	3
*Hirschfeldia incana**	mustard	HA
*Hypochaeris glabra**	smooth cats ear	HA
*Lactuca serriola**	prickly lettuce	3
Lasthenia californica	goldfields	2
*Logfia gallica**	narrowleaf cottonrose	1, 2
Lonicera subspicata	honeysuckle	HA, 1, 2, 3
*Lysimachia arvensis**	scarlet pimpernel	HA, 1, 2
Malosma laurina	laurel sumac	3
*Melilotus indicus**	annual yellow sweetclover	HA
Navarretia sp.	skunkweed	HA
*Nicotiana glauca**	tree tobacco	HA, 1, 2
*Olea europaea**	olive	HA, 1
Opuntia littoralis	coastal prickly pear	HA, 3
Osmadenia tenella	osmadenia	HA, 1, 2
Peritoma arborea	bladderpod	1
Pholistoma racemosum	San Diego fiesta flower	HA
Plantago erecta	dwarf plantain	1
Pseudognaphalium biolettii	two-color rabbit-tobacco	HA
Pseudognaphalium californicum	California everlasting	1, 2
Salvia apiana	**white sage**	**2**
Salvia mellifera	**black sage**	**HA, 1, 2**
Scrophularia californica	California figwort	HA, 1, 2
Sidalcea malviflora	checkerbloom	1

Scientific Name	Common Name	Survey Numbers in Bloom[1]
Sisyrinchium bellum	blue-eyed grass	HA, 1, 2
*Sonchus asper**	prickly sow thistle	1
Zeltnera venusta	canchalagua	HA, 1, 2, 3

† Special status species

* Non-native species

[1] HA = Habitat Assessment

[2] Plants in genera most commonly associated with Crotch's bumble bee (*Acmispon, Antirrhinum, Asclepias, Astragalus, Chaenactis, Cirsium, Clarkia, Cordylanthus, Dendromecon, Ehrendorferia, Eriogonum, Eschscholzia, Euthamia, Hypericum, Keckiella, Lantana, Lupinus, Monardella, Phacelia*, *Salvia Trichostema,* and *Vicia*) shown in **bold**.

Appendix F

2018 Coastal California Gnatcatcher Report

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942
619.462.1515 **tel**
619.462.0552 **fax**
www.**helixepi**.com

July 9, 2018 CGA-03

Ms. Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Ave., Suite 250
Carlsbad, CA 92008

Subject: 2018 Coastal California Gnatcatcher (*Polioptila californica californica*) Survey Report for the El Camino Memorial Park Secret Canyon Project

Dear Ms. Love:

This letter presents the results of a US Fish and Wildlife Service (USFWS) protocol presence/absence survey of the federally listed as threatened coastal California gnatcatcher (*Polioptila californica californica*; CAGN) conducted by HELIX Environmental Planning, Inc. (HELIX) for the El Camino Memorial Park Secret Canyon Project (project). This report describes the methods used to perform the survey and the results. It is being submitted to the USFWS as a condition of HELIX's Threatened and Endangered Species Permit TE-778195-13.

PROJECT LOCATION

The approximately 12-acre project site is located within the City of San Diego (City), California, north of Highway (HWY-) 52, south of HWY-56, east of Interstate (I-) 805, and west of I-15 (Figure 1). The project site is situated in Section 3, Township 15 South, Range 3 West of the US Geological Survey (USGS) 7.5-minute La Jolla quadrangle map (Figure 2). The project site is located in the City of San Diego, in an undeveloped portion of the El Camino Memorial Park cemetery (Figure 3). The project site does not occur within USFWS-designated Critical Habitat.

METHODS

The survey consisted of three visits that were performed by HELIX biologist Katie Bellon (TE 778195-13) in accordance with the current (1997) USFWS protocol. The CAGN survey area encompassed a 500-foot buffer area around the proposed project site. Approximately 27.8 acres of potential CAGN habitat, composed of Diegan coastal sage scrub (including -disturbed), occurs within the survey area (Figure 4). Table 1 details the survey dates, times, and conditions.

Table 1
GNATCATCHER SURVEY INFORMATION

Site Visit	Survey Date	Biologist(s)	Start/Stop Time	Approx. Acres Surveyed/ Acres per Hour	Start/Stop Weather Conditions	Survey Results
1	05/24/18	Katie Bellon	0820/1120	27.8 ac/ 9.3 ac/hr	58°F, wind 2-4 mph, 100% cloud cover 60°F, wind 4-6 mph, 100% cloud cover	• Pair No. 1 detected on the east side of a steep ravine foraging with at least one fledgling.
2	06/2/18	Katie Bellon	0745/1045	27.8 ac/ 9.3 ac/hr	60°F, wind 2-3 mph, 25% cloud cover 68°F, wind 5-7 mph, 0% cloud cover	No CAGN detected
3	06/8/18	Katie Bellon	0745/1015	27.8 ac/ 11.1 ac/hr	61°F, wind 1-2 mph, 0% cloud cover 69°F, wind 4-6 mph, 0% cloud cover	No CAGN detected

The surveys were conducted by walking within and along the perimeter of suitable CAGN habitat within the survey area. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by CAGN. Surveys were conducted with binoculars to aid in bird detection. Recorded CAGN vocalizations were played sparingly and only if other means of detection had failed. If a CAGN was detected before playing recorded vocalizations, the recordings were not played. Once CAGNs were initially detected in an area, use of playback was discontinued. The approximate survey route followed is depicted on Figure 4.

COASTAL CALIFORNIA GNATCATCHER HABITAT

Diegan coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within the project include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and laurel sumac (*Malosma laurina*). Disturbed coastal sage scrub- contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but with planted rows of olive trees (*Olea* sp.) transecting the landscape.

RESULTS

One pair of CAGN with at least one fledgling was detected during the survey efforts, within the Diegan coastal sage scrub that occurs within the 500-foot survey buffer outside of the project site (Figure 4). The pair (Pair No. 1) was observed foraging in Diegan coastal sage scrub east of a steep ravine, approximately 450 feet east of the project site. The male and female CAGN responded to the recording, but the fledgling remained on the east side of the ravine. The pair and fledgling were not detected during subsequent surveys. The pair likely has an established territory outside of the survey area. No CAGN were detected within the project site.

CERTIFICATION

I certify that the information in this survey report and enclosed exhibit fully and accurately represent our work.

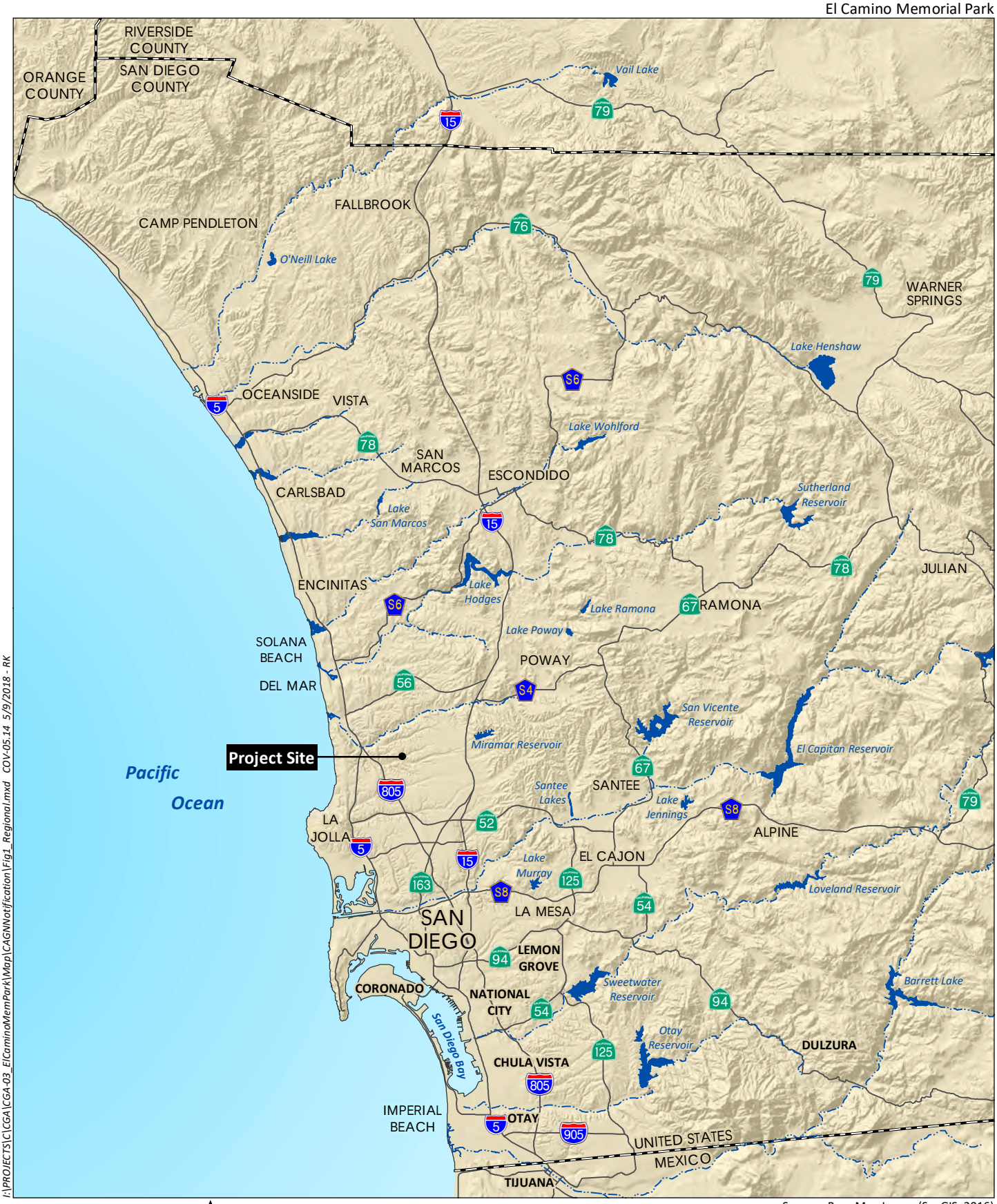
Sincerely,

Katie Bellon
Biologist

Enclosures:
Figure 1 Regional Location
Figure 2 Project Vicinity (USGS Topography)
Figure 3 Project Vicinity (Aerial Photograph)
Figure 4 2018 Coastal California Gnatcatcher Survey Results

REFERENCES

U.S. Fish and Wildlife Service (USFWS). 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. 5pp.



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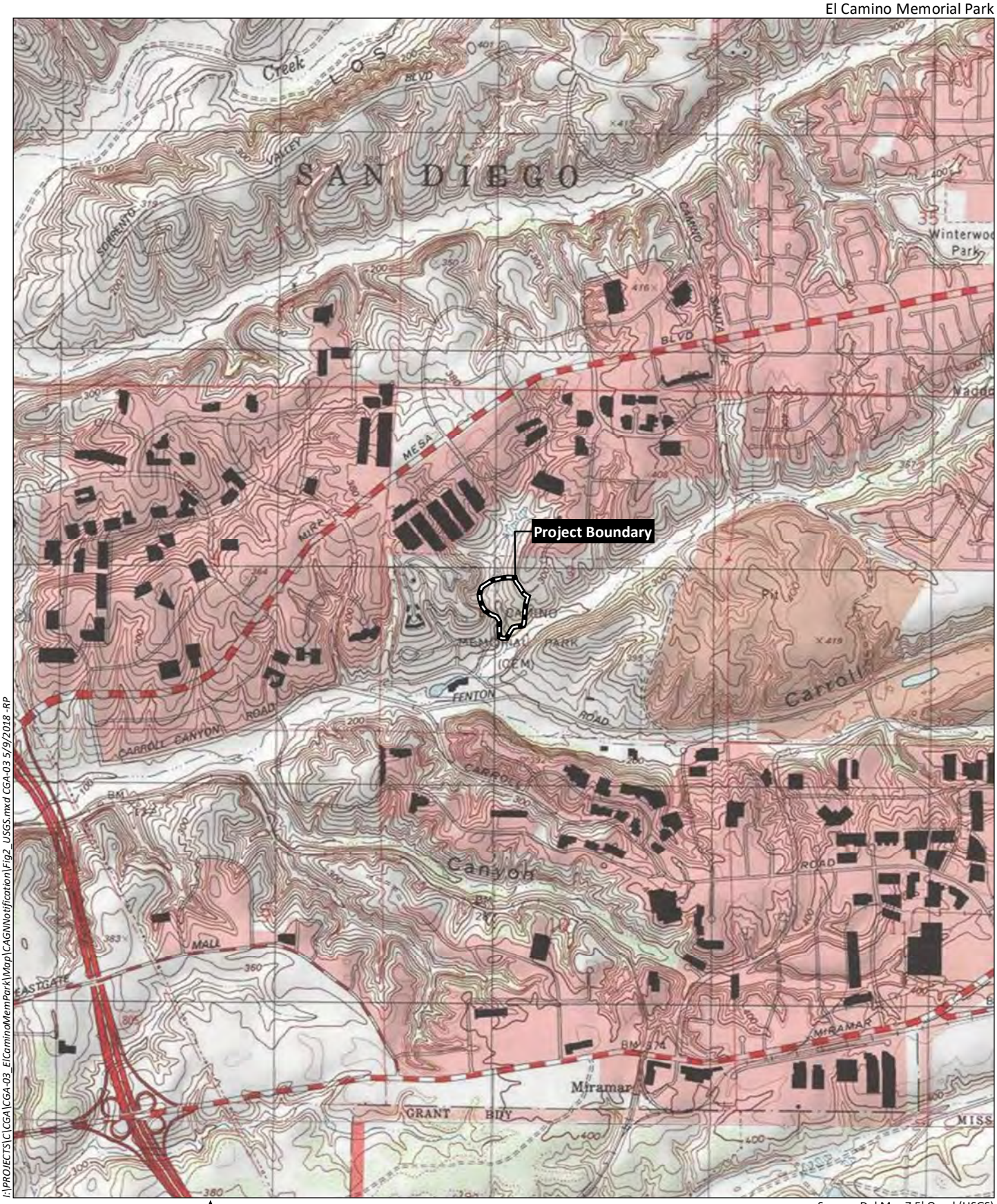
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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Source: Del Mar 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

I:\PROJECTS\C\CGA\CGA-03_ElCaminoMemPark\Map\CAGNNotification\Fig3_Aerial.mxd CGA-03 5/9/2018 - RP

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Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Aerial Photograph

Figure 3

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Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

2018 Coastal California Gnatcatcher Survey Results

Figure 4

Appendix G

2021 Coastal California Gnatcatcher Report

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942
619.462.1515 **tel**
619.462.0552 **fax**
www.**helixepi**.com

June 30, 2021 00159.00003.001

Ms. Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Ave., Suite 250
Carlsbad, CA 92008

Subject: 2021 Coastal California Gnatcatcher (*Polioptila californica californica*) Survey Report for the El Camino Memorial Park Secret Canyon Project

Dear Ms. Love:

This letter presents the results of a US Fish and Wildlife Service (USFWS) protocol presence/absence survey of the federally listed as threatened coastal California gnatcatcher (*Polioptila californica californica*; CAGN) conducted by HELIX Environmental Planning, Inc. (HELIX) for the El Camino Memorial Park Secret Canyon Project (project). This report describes the methods used to perform the survey and the results. It is being submitted to the USFWS as a condition of HELIX's Threatened and Endangered Species Permit TE-778195-14.

PROJECT LOCATION

The approximately 23-acre project site is located within the City of San Diego (City), California, north of Highway (HWY-) 52, south of HWY-56, east of Interstate (I-) 805, and west of I-15 (Figure 1, *Regional Location*). The project site is situated in Section 3, Township 15 South, Range 3 West of the US Geological Survey (USGS) 7.5-minute La Jolla quadrangle map (Figure 2, *Project Vicinity [USGS Topography]*). The project site is located in an undeveloped portion of the El Camino Memorial Park cemetery (Figure 3, *Aerial Photograph*). The project site does not occur within USFWS-designated Critical Habitat.

METHODS

The survey consisted of three visits that were performed by HELIX biologist Katie Bellon (TE 778195-14) in accordance with the current (1997) USFWS protocol. The CAGN survey area encompassed a 500-foot buffer area around the proposed project site. Approximately 33.7 acres of potential CAGN habitat, composed of Diegan coastal sage scrub (including - disturbed), occurs within the survey area (Figure 4, *2021 Coastal California Gnatcatcher Survey Results*). Table 1 details the survey dates, times, and conditions.

Table 1
GNATCATCHER SURVEY INFORMATION

Site Visit	Survey Date	Biologist(s)	Start/Stop Time	Approx. Acres Surveyed/ Acres per Hour	Start/Stop Weather Conditions	Survey Results
1	5/3/21	Katie Bellon	0745/1015	33.7 ac/ 13.5 ac/hr	61°F, wind 0-1 mph, 100% cloud cover 63°F, wind 5-8 mph, 40% cloud cover	• Pair No. 1 detected within the eastern portion of the survey area. The male responded aggressively to tape, but male and female were heard calling to each other later.
2	5/10/21	Katie Bellon	0745/0945	33.7 ac/ 16.9 ac/hr	59°F, wind 1-2 mph, 100% cloud cover 61°F, wind 2-3 mph, 100% cloud cover	• Male (Pair No. 1) detected within the eastern portion of the survey area foraging and behaving secretively.
3	5/21/21	Katie Bellon	0730/0935	33.7 ac/ 16.2 ac/hr	58°F, wind 5-10 mph, 90% cloud cover 61°F, wind 8-12 mph, 95% cloud cover	• Female (Pair No. 1) detected within the eastern portion of the survey area foraging and calling sporadically.

The surveys were conducted by walking within and along the perimeter of suitable CAGN habitat within the survey area. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by CAGN. Surveys were conducted with binoculars to aid in bird detection. Recorded CAGN vocalizations were played sparingly and only if other means of detection had failed. If a CAGN was detected before playing recorded vocalizations, the recordings were not played. Once CAGNs were initially detected in an area, use of playback was discontinued. The approximate survey route followed is depicted on Figure 4.

COASTAL CALIFORNIA GNATCATCHER HABITAT

Diegan coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within the survey area include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), and laurel sumac (*Malosma laurina*). Disturbed coastal sage scrub within the survey area contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but with planted rows of olive trees (*Olea* sp.) transecting the landscape.

RESULTS

One pair of CAGN was detected during the survey efforts, within the Diegan coastal sage scrub that occurs within the proposed project site (Figure 4). The pair (Pair No. 1) was observed foraging in Diegan coastal sage scrub within the eastern portion of the survey area. During the first survey, the male CAGN responded aggressively to the recording. The male and female were later heard calling to each other in black sage (*Salvia mellifera*) and California sagebrush. Only the male was detected during the second survey and only the female was detected during the third survey.

CERTIFICATION

I certify that the information in this survey report and enclosed exhibit fully and accurately represent our work.

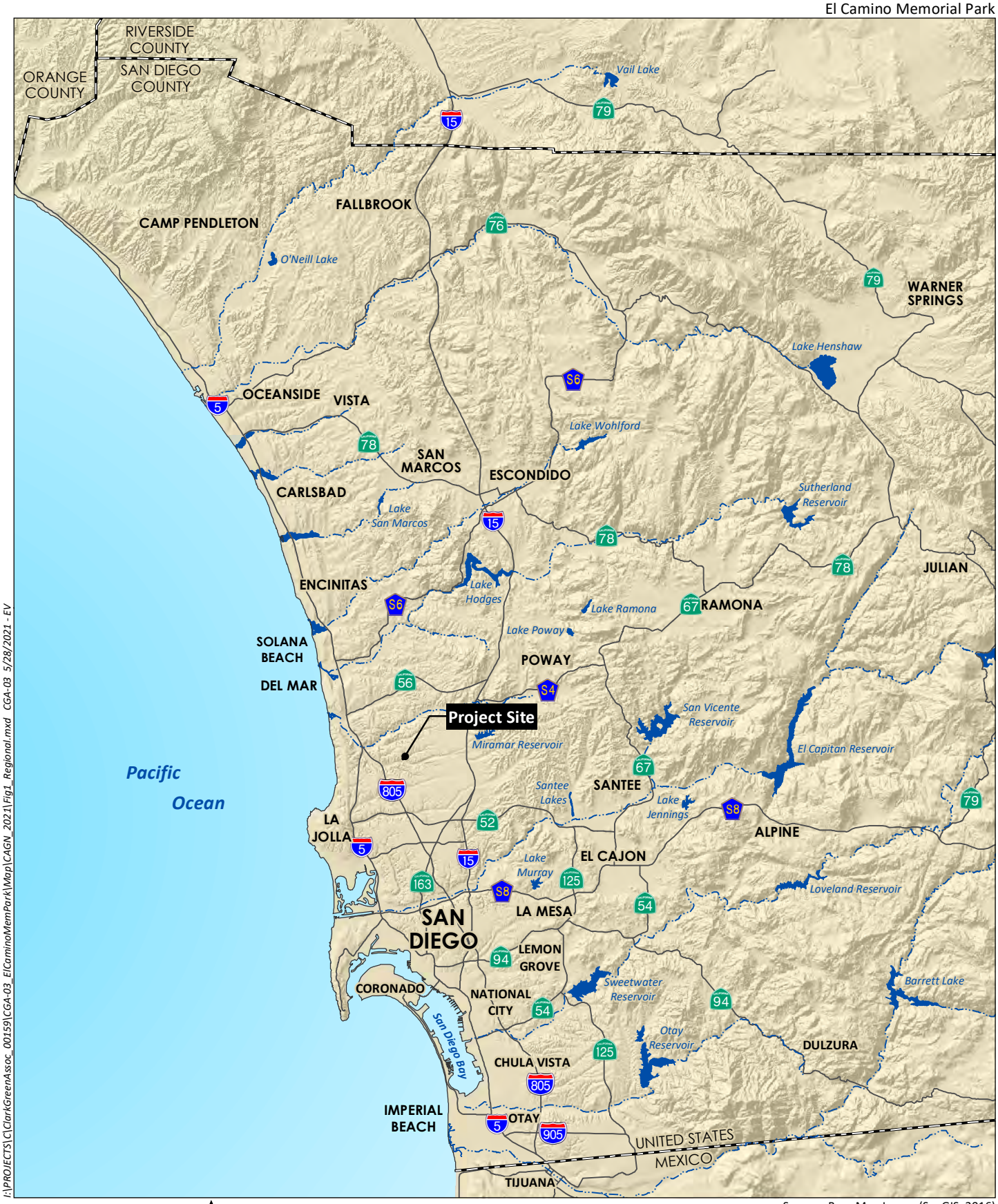
Sincerely,

Katie Bellon
Biologist

Enclosures:
Figure 1 Regional Location
Figure 2 Project Vicinity (USGS Topography)
Figure 3 Aerial Photograph
Figure 4 2021 Coastal California Gnatcatcher Survey Results

REFERENCES

U.S. Fish and Wildlife Service (USFWS). 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. 5pp.



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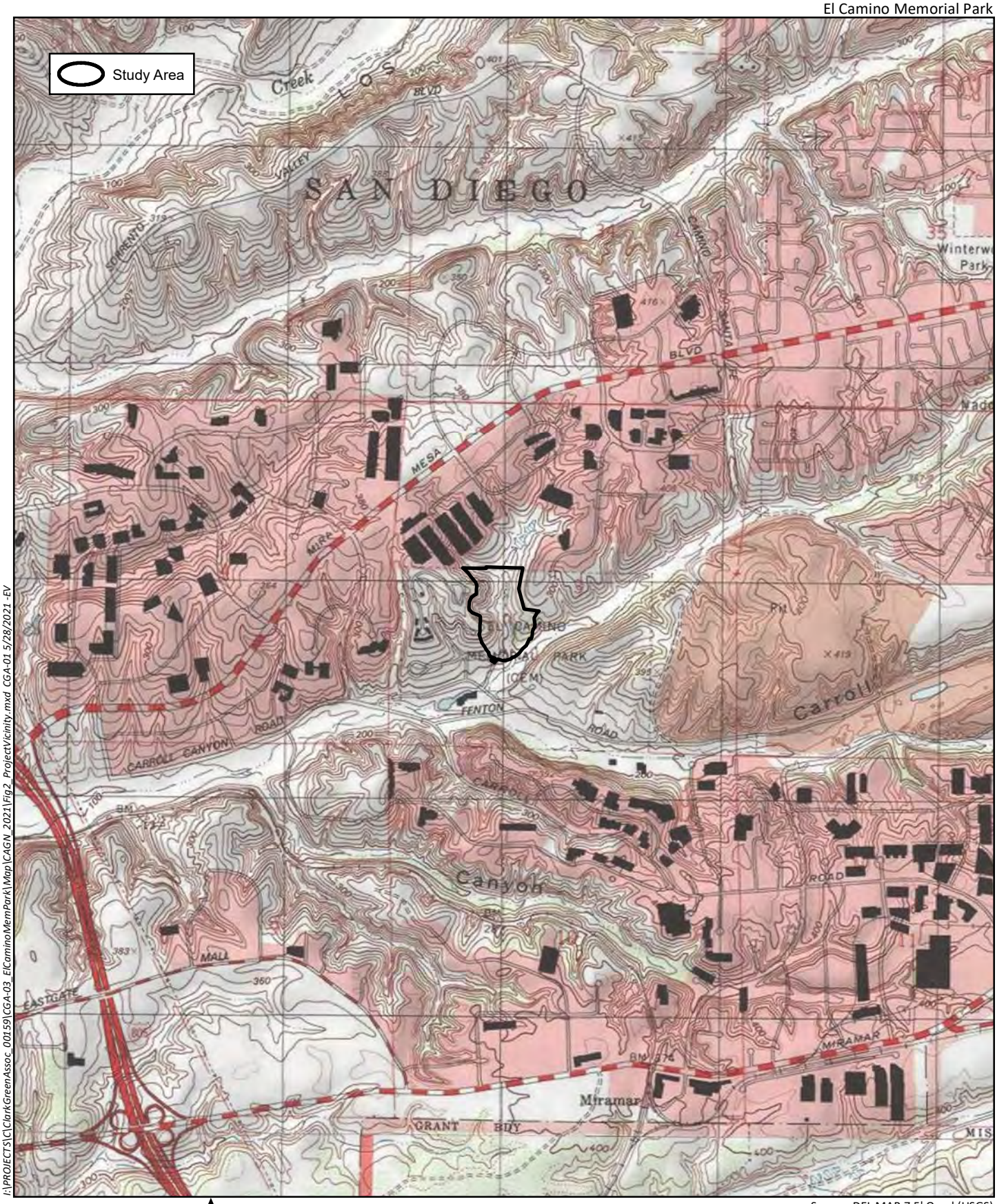
0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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Source: DEL MAR 7.5' Quad (USGS)

HELIX Environmental Planning

Project Vicinity (USGS Topography)

Figure 2

El Camino Memorial Park

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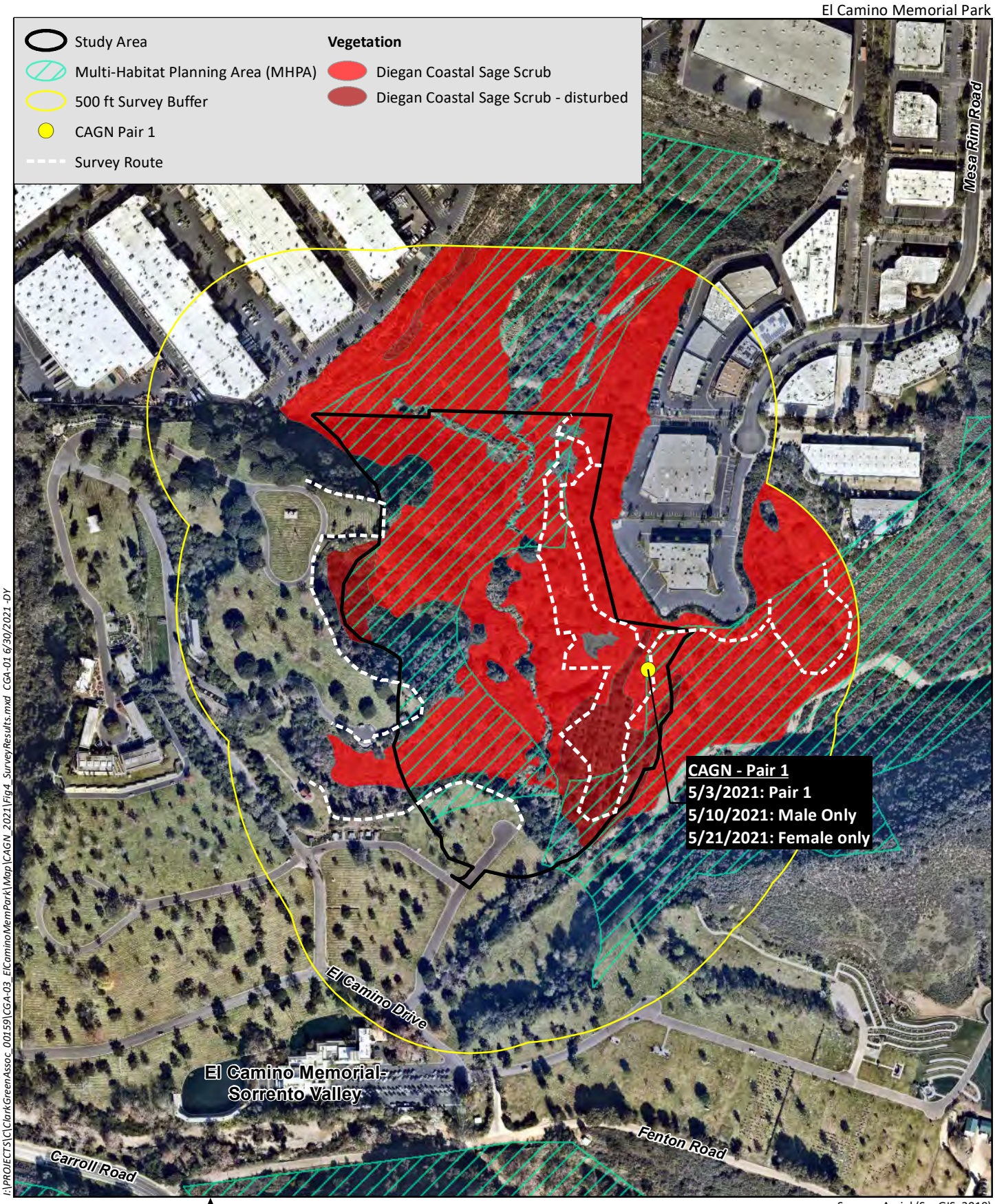
Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 3



HELIX Environmental Planning

2021 Coastal California Gnatcatcher Survey Results

Figure 4