Kearny Mesa Logistics

Biological Technical Report

June 2020 | LTD-18

Prepared for:

Latitude 33 Planning & Engineering
D9968 Hibert Street, 2nd floor
San Diego, CA 92131

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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ACRONYMS AND ABBREVIATIONS

AMSL	Above Mean Sea Level
CAGN	Coastal California Gnatcatcher
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
CWA	Clean Water Act
EPA	Environmental Protection Agency
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
GIS	Geogrpahic Information Systems
GPS	Global Positioning Unit
HELIX	HELIX Environmental Planning, Inc.
LUAG	Land Use Adjacency Guidelines
MBTA	Migratory Bird Treaty Act
MHPA	Multiple Habitat Planning Area
MSCP	Multiple Species Conservation Plan
NPPA	Native Plant Protection Act
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
PCEs	Primary Constituent Elements
Project	Kearny Mesa Logistics Project
Project proponent	Lincoln Property Company
RWQCB	Regional Water Quality Control Board
SND	Significant Nexus Determination
SR	State Route
SWRCB	State Waters Resources Control Board

ACRONYMS AND ABBREVIATIONS (cont.)

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
VPHCP	Vernal Pool Habitat Conservation Plan
VPMMP	Vernal Pool Mitigation and Monitoring Plan
WS	waters of the State
WUS	waters of the U.S.

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report presents the results of a biological resources study conducted by HELIX Environmental Planning, Inc. (HELIX) for the Lincoln Property Company's (project proponent) proposed Kearny Mesa Logistics (project). The study was conducted to provide the City of San Diego (City), resource agencies, and the public with current biological data to satisfy review of the proposed project under the California Environmental Quality Act (CEQA), and to demonstrate compliance with federal, state, and local regulations. This report describes the project site's current biological conditions, vegetation communities, and plant and wildlife species observed or detected during surveys, and identifies those resources that are sensitive. It also identifies sensitive species with potential to occur within the project site. In addition, project impacts are assessed, and mitigation is proposed to offset the proposed project's unavoidable significant impacts to sensitive biological resources.

1.2 PROJECT LOCATION

The approximately 20.7-acre Kearny Mesa Logistics project site is located in the community of Kearny Mesa in the City of San Diego (City), San Diego County, California (Figure 1, *Regional Location*). It lies within an unsectioned portion of Township 15 South, Range 3 West of the La Jolla U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is specifically located immediately north and west of State Route (SR-) 163, south of SR-52, and west of Kearny Mesa Road, within the current Cubic Corporation property (Figure 3, *Aerial Vicinity*).

The site is within the boundary of the City's Multiple Species Conservation Program (MSCP) Subarea Plan and the eastern portion of the site occurs within the boundaries of the City's Vernal Pool Habitat Conservation Plan (VPHCP; City 2020), which is included as part of the City's Multi-Habitat Planning Area (MHPA; Figure 4, *Regional Conservation Planning Context*). U.S. Fish and Wildlife Service (USFWS)-designated critical habitat for the San Diego fairy shrimp (*Branchinecta sandiegonensis*) occurs within the eastern portion of the site (Figure 4). Additionally, the site is included in the study area boundaries of the City's Kearny Mesa Community Plan Update.

1.3 PROJECT DESCRIPTION

The proposed project consists of the redevelopment of the current Cubic property for logistics uses. The existing buildings would be demolished, and an approximately 300,000-square foot industrial/logistics building would be constructed in the in the southern and western portions of the site (Figure 5, *Site Plan*). The project would also consist of off-site road improvements along Magnatron Boulevard located west of the site.

2.0 SURVEY METHODS

2.1 LITERATURE REVIEW

Prior to conducting field surveys, HELIX conducted a thorough review of relevant maps, databases, literature, and previous reports prepared by HELIX (2019a, 2019b, 2019c) pertaining to biological

resources known to occur within the project vicinity. Recent and historical aerial imagery, USGS topographic maps, soils maps (U.S. Department of Agriculture [USDA] 2019), and other maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting.

In addition, a query of special status species and habitats databases was conducted, including the USFWS species records (USFWS 2019a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2019a), Calflora database (Calflora 2019), SanBIOS and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2019). The USFWS' National Wetlands Inventory (NWI) was also reviewed (USFWS 2019b). Any recorded locations of species, habitat types, wetlands, and other resources were mapped and overlain onto aerial imagery using Geographic Information Systems (GIS).

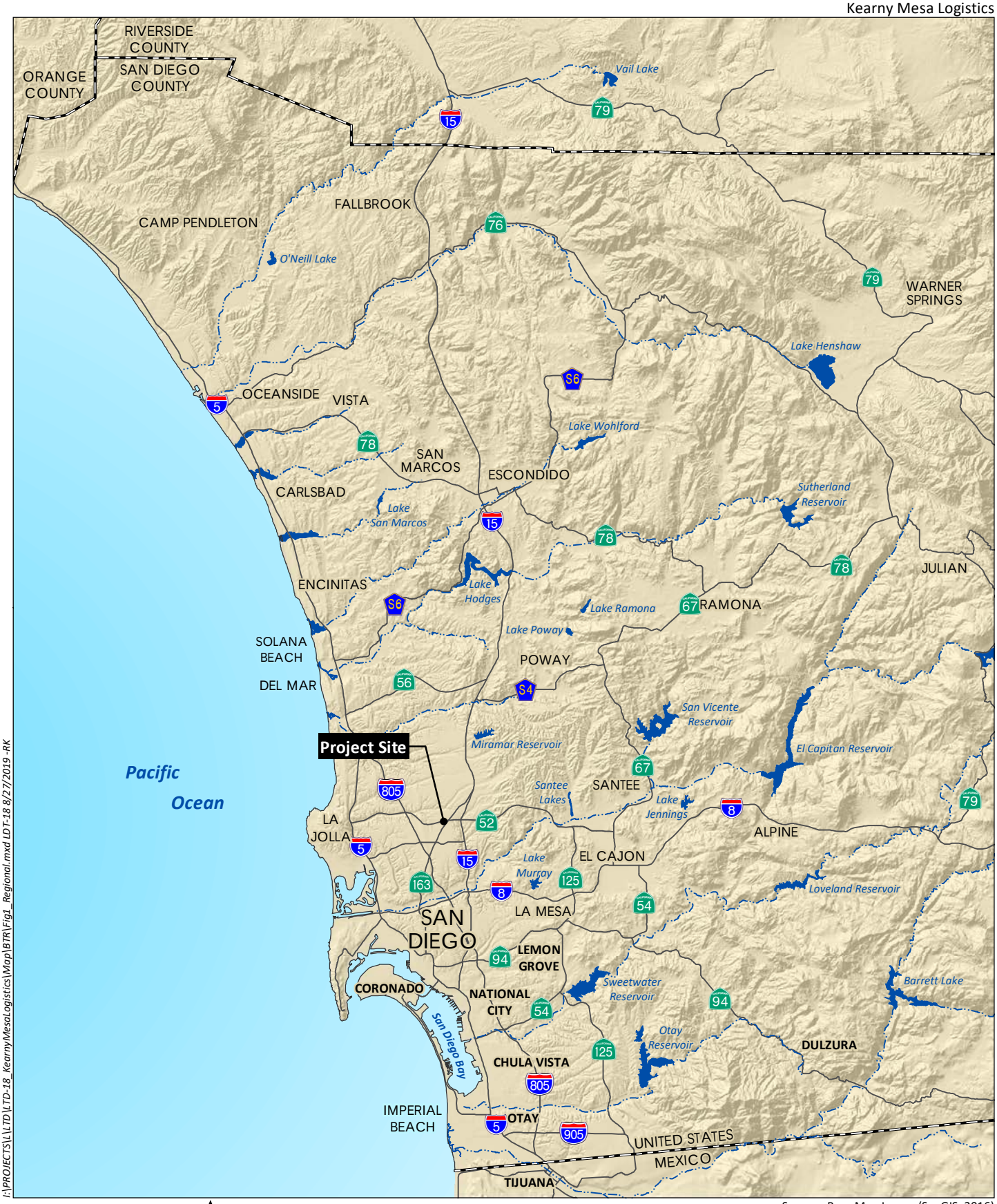
2.2 GENERAL BIOLOGICAL SURVEY

A general biological survey and formal jurisdictional delineation of the project's study area encompassing the project site and an additional 100-foot buffer, was conducted by HELIX biologists Larry Sward and Erica Harris on August 27 and September 25, 2019 (Table 1, *Survey Information*). Vegetation was mapped on a 1"=150' scale aerial of the site. A minimum mapping unit size of 0.10 acre was used when mapping upland habitat; 0.01 acre was used when mapping wetland and riparian habitat. The project site was surveyed on foot and with the aid of binoculars. Plant and animal species observed or otherwise detected were recorded in field notebooks. 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. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped. The project site was examined for evidence of potential jurisdictional waters and wetlands.

Table 1 provides a summary of biological surveys conducted to date for the project.

Table 1
SURVEY INFORMATION

Date	Personnel	Survey Type
2019		
August 27, 2019	Larry Sward; Erica Harris	General Biological Survey, Vegetation Mapping, Habitat Assessment, Formal Jurisdictional Delineation
September 25, 2019	Larry Sward; Erica Harris	General Biological Survey, Vegetation Mapping, Habitat Assessment, Formal Jurisdictional Delineation
2020		
March 9, 2020	Amy Mattson	General Biological Survey, Vernal Pool Inspection
April 15, 2020	Amy Mattson	Spring Rare Plant Survey
June 11, 2020	Angelia Bottani	Summer Rare Plant Survey



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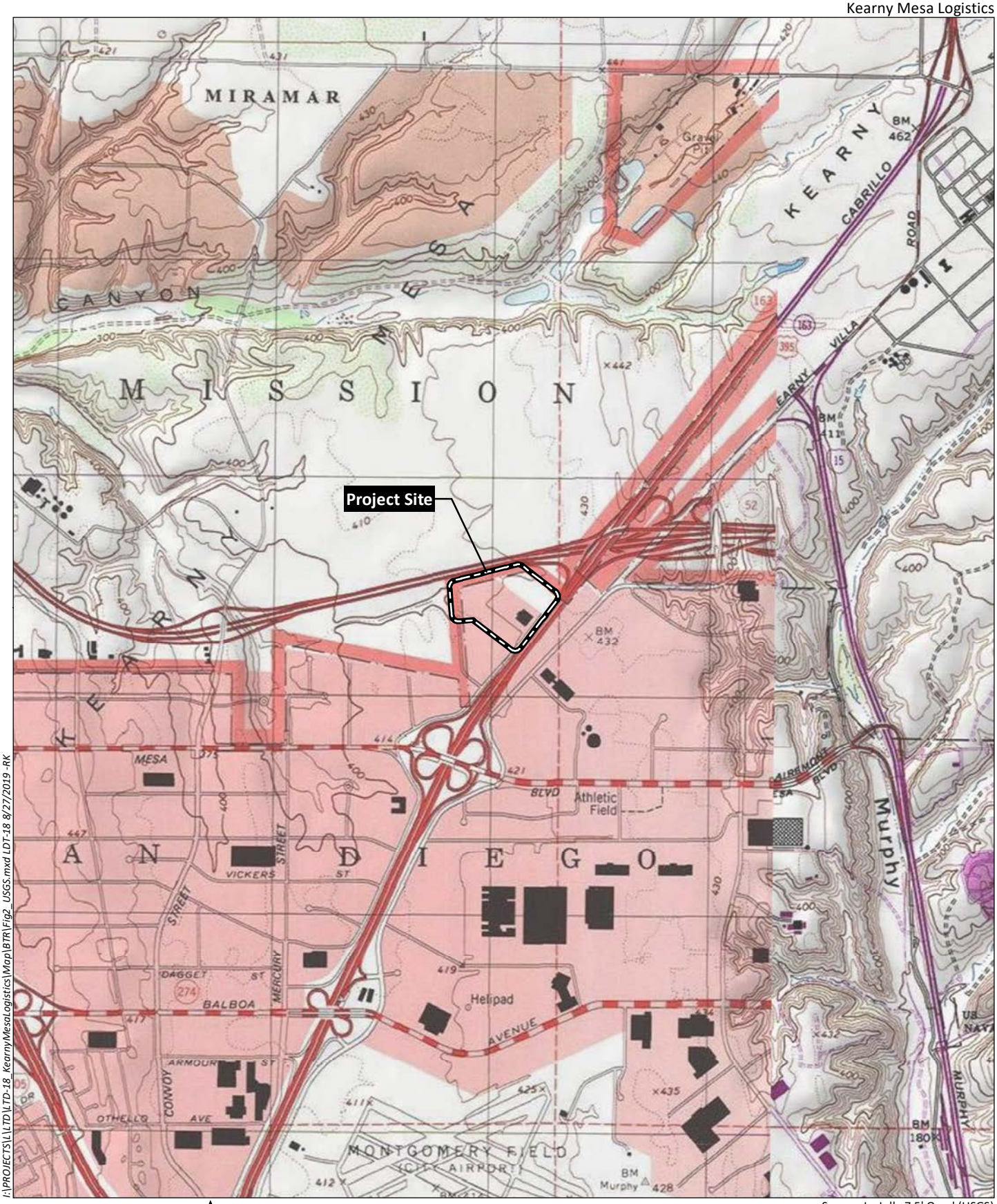
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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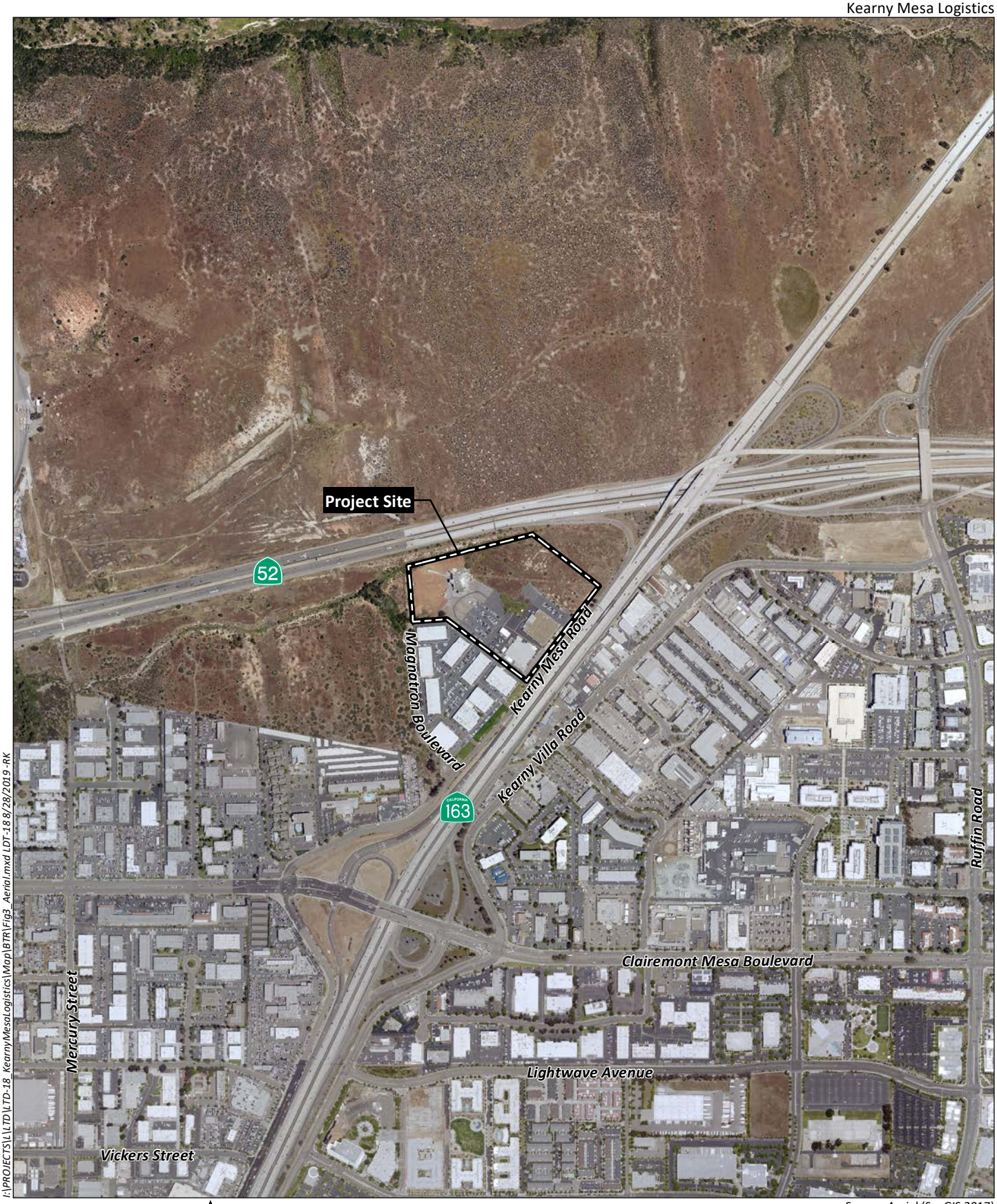
Source: La Jolla 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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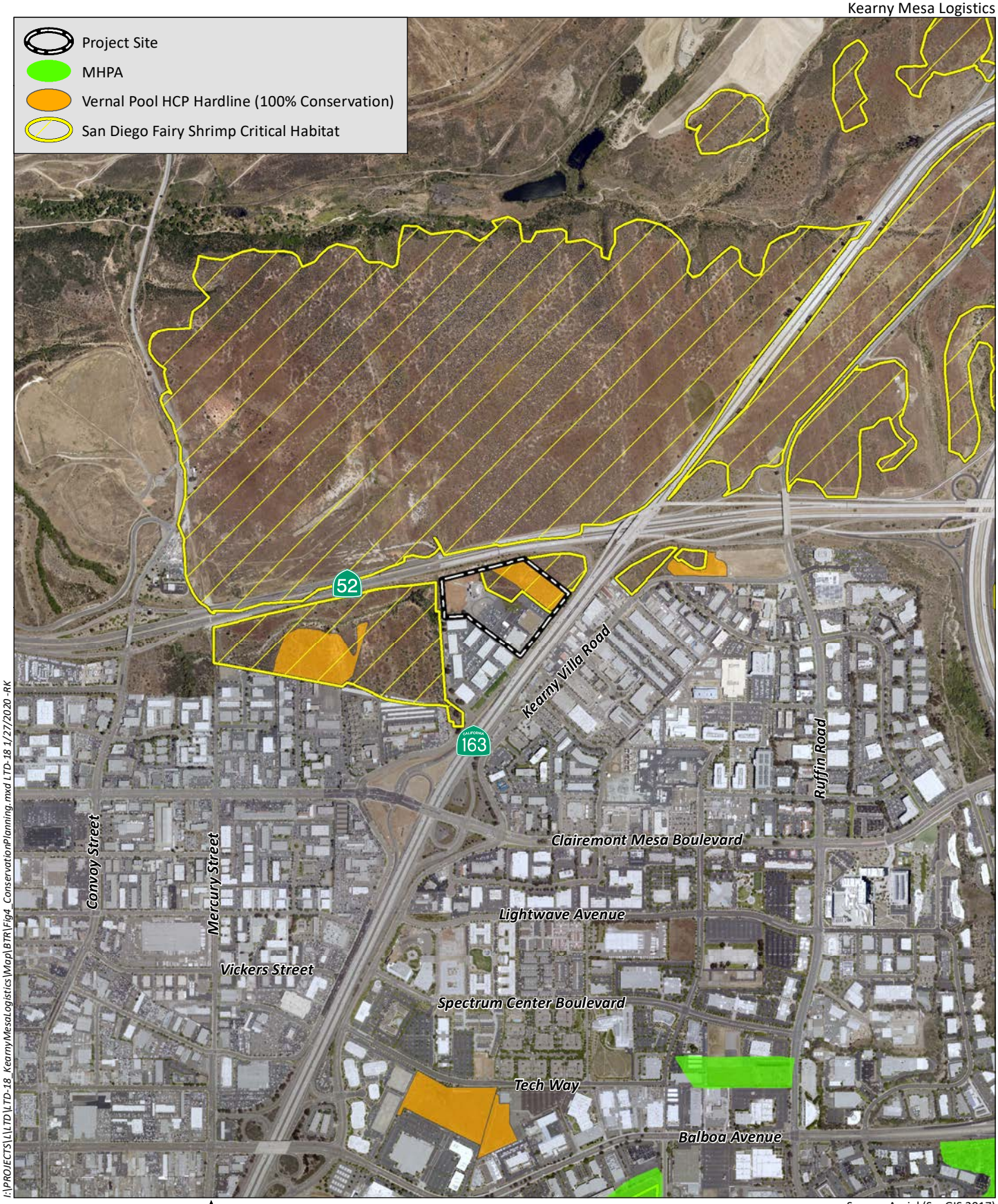
Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Project Vicinity (Aerial Photo)

Figure 3



Source: Aerial (SanGIS 2017)

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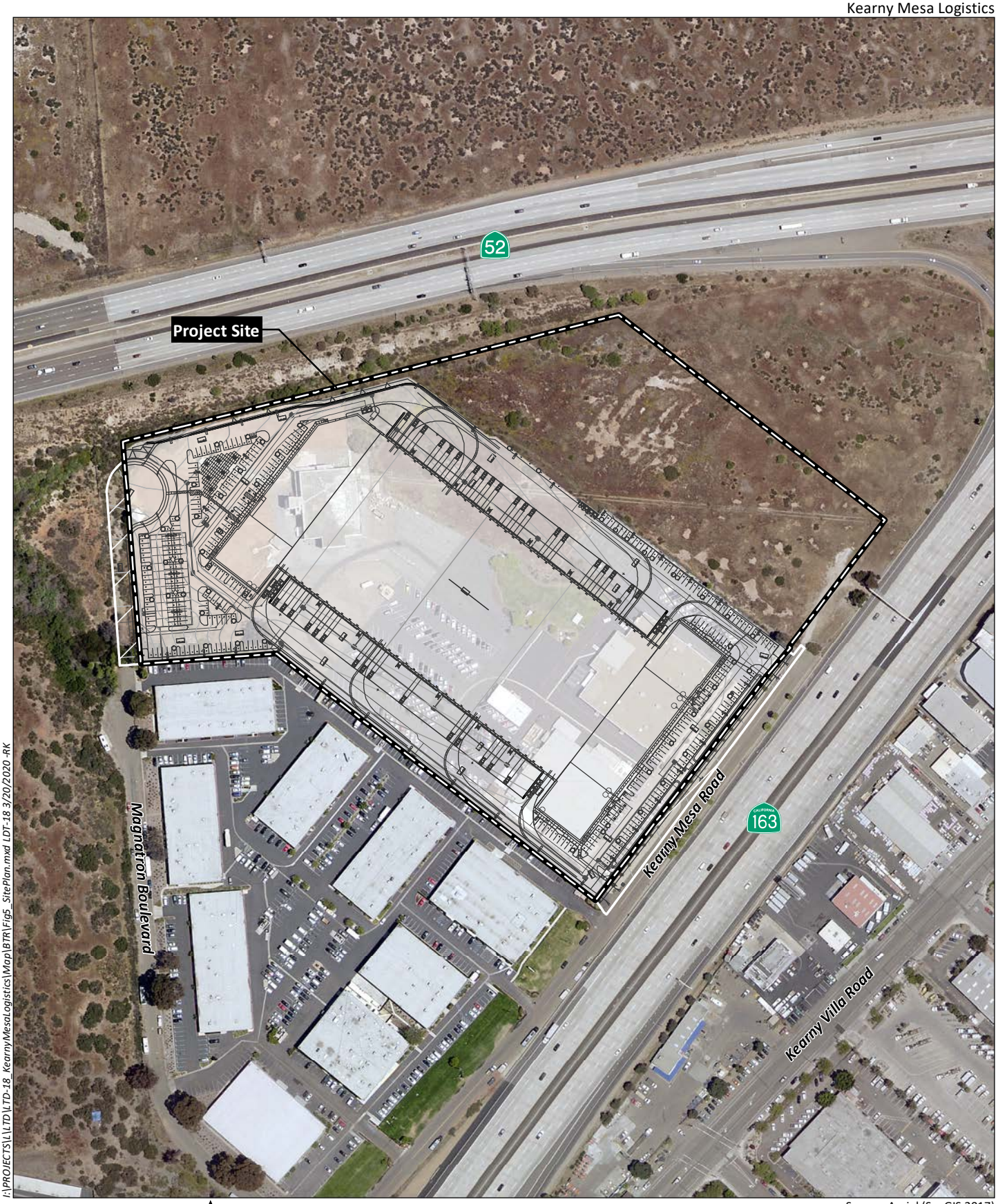
Vernal Pool Habitat Conservation Plan

Figure 4



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Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Site Plan

Figure 5

2.3 FOCUSED SPECIES SURVEYS

2.3.1 Rare Plant Surveys

HELIX biologist Amy Mattson surveyed the project site for special status plant species on April 15, 2020. An additional survey for late-blooming species was conducted on June 11, 2020by HELIX biologist Angelia Bottani. Special status plant species include species that are: listed as threatened or endangered by the USFWS or the CDFW; those with a California Rare Plant Rank (CRPR) 1 through 4 as designated by the CNPS; and those that are listed as narrow endemic under the City's Biological Guidelines (City 2018a) and covered by the City MSCP Subarea Plan (City 1997). The surveys were conducted on foot and included 100 percent visual coverage of the proposed project footprint. Special status plant species encountered during the survey were mapped using a hand-held Global Positioning System (GPS) unit. Special status plant species were also searched for opportunistically during other surveys and their numbers and locations were recorded when encountered.

2.4 JURISDICTIONAL DELINEATION

HELIX biologists Mr. Sward and Ms. Harris conducted a field-based jurisdictional delineation on August 27 and September 25, 2019, concurrent with the general biological survey (Table 1). Prior to conducting fieldwork, aerial photographs (1"=150' scale), topographic maps (1"=150' scale), and NWI maps were reviewed to assist in determining the presence or absence of potential jurisdictional areas within the project site. The purpose of the delineation was to identify and map 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) wetlands. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated.

2.4.1 Waters of the U.S.

Potential USACE-jurisdictional waters of the U.S. (WUS) were determined using three criteria (vegetation, hydrology, and soils) established for wetland delineations as described within Wetlands Delineation Manual (Environmental Laboratory 1987) and Arid West Regional Supplement (USACE 2008). Other references included the Clean Water Rule (USACE and Environmental Protection Agency [EPA] 2015), significant nexus determination (SND; Grumbles and Woodley 2007), and those that help clarify relevant court decisions (Grumbles and Woodley 2008).

Plants were identified according to Jepson eFlora (2019). Wetland affiliations of plant species follow the National Wetland Plant List (Lichvar et al. 2016). Soils information was taken from the USDA's Web Soil Survey (USDS 2019). Soil samples were evaluated for hydric soil indicators (e.g., hydrogen sulfide [A4], sandy redox [S5], depleted matrix [F3], redox dark surface [F6], redox depressions [F8], and vernal pools [F9]). Soil chromas were identified according to Munsell's Soil Color Charts (Kollmorgen 1994).

Sampling points were inspected for primary (e.g., surface water [A1], saturation [A3], water marks [non-riverine, B1], sediment deposits [non-riverine, B2], drift deposits [non-riverine, B3], surface soil cracks [B6], inundation visible on aerial imagery [B7], salt crust [B11], aquatic invertebrates [B13], hydrogen

sulfide odor [C1], and oxidized rhizospheres along living roots [C3]) and were also inspected for secondary (e.g., water marks [riverine, B1], sediment deposits [riverine, B2], drift deposits [riverine, B3], drainage patterns in wetlands [B10], shallow aquitard [D3], and positive FAC neutral test [D5]) wetland hydrology indicators.

Areas were determined to be potential non-wetland WUS 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 (OHWM), 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." Guidance on the ordinary high water mark used for this report included Riley (2005) and Lichvar and McColley (2008).

Seven (7) sampling points were studied, and soil pits were excavated at each of these. Sampling points were located within representative uplands and wetlands. Standard USACE wetland delineation data forms were completed for each sampling point in the field, and are included in Appendix A, *Jurisdictional Delineation Forms*. Photographs taken of the sampling points and study area are included in Appendix B, *Representative Photographs*. An overview of USACE wetlands and jurisdictional WUS definitions is presented in Appendix C, *Wetlands and "waters of the U.S." Definitions*.

2.4.2 Waters of the State

Potential RWQCB-jurisdictional Waters of the State (WS) were delineated in the same manner as potential WUS. All waters of the U.S. were considered waters of the State subject to RWQCB jurisdiction pursuant to CWA Section 401. Where features were determined to be geographically isolated, they were considered isolated waters of the State subject to RWQCB jurisdiction pursuant to Porter-Cologne.

2.4.3 Streambed and Riparian Habitat

Potential CDFW-jurisdictional streambed and riparian habitat were determined based on the presence of riparian vegetation or regular surface flow within a measurable bed and bank. 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 support riparian vegetation" (Title 14, Section 1.72). Potential CDFW-jurisdictional unvegetated streambed encompasses the top-of-slope to top-of-slope width for the features within the project site. 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. Definitions of CDFW jurisdictional areas are presented in Appendix D, *California fish and wildlife regulations*.

2.4.4 City Environmentally Sensitive Lands Wetlands

Potential ESL wetlands were evaluated based on the predominance of hydrophytic plant species. In addition, 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. 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. However, seasonal drainage patterns that are sufficient enough to etch the landscape 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. Naturally occurring wetland vegetation communities include saltmarsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodland, riparian scrub, and vernal pools. Artificially created wetlands, such as those created by human activities in historically non-wetland areas, are not considered City ESL wetlands in accordance with the City's definitions.

2.5 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 project site, 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 project site, however, are still addressed in this report.

2.6 NOMENCLATURE

Nomenclature used in this report generally comes from the City MSCP Subarea Plan (City 1997), Holland (1986) and Oberbauer (2008) for vegetation; Jepson eFlora (2019) and Baldwin et al. (2012) for plants; Society for the Study of Amphibians and Reptiles (2019) for reptiles and amphibians; American Ornithological Society (2019) for birds; North American Butterfly Association (2019) for butterflies; and Bradley et al. (2014) and Tremor et al. (2017) for mammals. Plant species status is from the CNPS' Rare Plant Inventory (CNPS 2019), CDFW (2020), and City (2018). Animal species status is from the CDFW (2019b) and City (2018).

3.0 RESULTS

The approximately 31-acre study area is located south of SR-52 and west of SR-163, within Kearny Mesa, where native and non-native vegetation communities exist adjacent to multiple roadways and existing commercial development. A portion of the project occurs within the City's VPHCP Hardline, which has been incorporated into the MHPA. The MHPA is the City's portion of the MSCP preserve, further discussed in Section 5.0. Vegetation communities within the study area, as well as plant and animal species detected on site, are further discussed below.

3.1 REGIONAL CONTEXT

The study area is generally located within the Central Coast ecological region of the City (San Diego National History Museum 2014). Mean annual precipitation is approximately 15 inches, and the mean annual temperature is approximately 61 degrees Fahrenheit. The frost-free season is 220 to 280 days.

Important biological resources in the region generally include grasslands, coastal sage scrub, chaparral, oak woodland, wetlands, and riparian habitats present within open space areas such as San Clemente Canyon, Rose Canyon, and Marine Corps Air Station (MCAS) Miramar (City 1997). Additionally, mesa tops that support vernal pool complexes are present within Kearny Mesa, though the area is heavily urbanized (City 2020). These areas provide live-in habitat for native species, facilitate dispersal of species, and provide shelter and foraging habitat for migrating species, primarily birds. Several plant and

animal species covered under the MSCP and VPHCP are found in these urban regions, including wart-stemmed ceanothus (*Ceanothus verrucosus*), San Diego button-celery (*Eryngium aristulatum* var. *parishii*), San Diego barrel cactus (*Ferocactus viridescens*), willowy monardella (*Monardella viminea*), San Diego mesa mint (*Pogogyne abramsii*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*), among others.

In the context of the City's MSCP Subarea Plan and VPHCP, the eastern portion of the site occurs within the VPHCP Hardline in the Central Planning Unit of the VPHCP (Figure 4). This area supports vernal pool habitat and has previously been found to contain vernal pool covered species such as San Diego button-celery, San Diego mesa mint, and San Diego fairy shrimp (City 2020).

3.2 GENERAL LAND USES

The study area is located within the coastal region of San Diego County in the community of Kearny Mesa which has been heavily developed and urbanized. The project is generally confined to existing developed lands associated with the Cubic property which was constructed in the late 1950s. The study area is largely characterized by disturbed habitat and developed lands associated with the current development with undeveloped areas to the east and west comprised of non-native grassland with patches of coastal sage scrub and chamise chaparral habitat.

Surrounding land uses include commercial development and shopping centers to the west, east, and south, and MCAS Miramar to the north. Several major transportation corridors are present in the surrounding area including SR-52 to the north and SR-163 to the east.

3.3 DISTURBANCE

The study area is located within Kearny Mesa which has been heavily modified and developed since the 1950s (City 2019). Historical land uses within project site include development of the Cubic property in the late 1950s and continued operation of the buildings and businesses.

3.4 TOPOGRAPHY AND SOILS

The site is generally sloped from east to west, with the highest elevations occurring in the furthest east portion of the property at 426 feet above mean sea level (AMSL) and the lowest elevations occurring in the furthest northwest portion at roughly 400 AMSL.

Two soil types have been mapped within the project site (USDA 2019; Figure 6, *Soils*): Redding cobbly loam, 9 to 30 percent; and Redding gravelly loan, 2 to 9 percent slopes.

3.5 VEGETATION COMMUNITIES/LAND COVER TYPES

Eleven (11) vegetation communities/land cover types were mapped within the study area (Figure 7, *Vegetation Communities and Sensitive Resources*): southern willow scrub, herbaceous wetland, disturbed wetland, baccharis scrub (including disturbed), Diegan coastal sage scrub (including disturbed), chamise chaparral, non-native grassland, eucalyptus woodland, non-native vegetation, disturbed habitat, and developed land. The communities/habitat types are presented in Table 2, *Existing Vegetation Communities/Land Cover Types*, in order by MSCP Tier. The numeric codes in parentheses

following each vegetation community/land cover type name are from the City's Land Development Code Biology Guidelines (City 2018a), with further guidance from the Holland classification system (Holland 1986) and as expanded by Oberbauer (2008).

Table 2
EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES

Vegetation Community/Land Cover Type[1]	MSCP Tier[2]	Acres[3]		
		Project Site	100-foot Buffer	Total
Wetlands				
Herbaceous Wetland (52510)	N/A	0.03	0.05	0.08
Disturbed Wetland (11200)	N/A	0.04	0.03	0.07
Southern Willow Scrub (63320)	N/A	--	0.03	0.03
	Subtotal	***0.07***	***0.11***	***0.18***
Uplands				
Baccharis Scrub (32530)	II	0.9	0.1	1.0
Baccharis Scrub – Disturbed (32530)	II	0.2	0.5	0.7
Diegan Coastal Sage Scrub (32500)	II	1.3	0.9	2.2
Diegan Coastal Sage Scrub – Disturbed (32500)	II	0.1	0.8	0.9
Chamise Chaparral (37200)	III A	0.2	--	0.2
Non-native Grassland (42200)	III B	5.0	2.0	7.0
Eucalyptus Woodland (79100)	IV	0.1	0.1	0.2
Non-native Vegetation (11000)	IV	0.1	0.1	0.2
Disturbed Habitat (11300)	IV	2.5	0.6	3.1
Developed (12000)	IV	10.3	4.5	14.8
	Subtotal	***20.7***	***9.6***	***30.3***
	TOTAL	**20.77**	**9.71**	**30.48**

[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[2] Tiers refer to City MSCP Subarea Plan habitat classification system.
[3] Acreages rounded to the nearest 0.1 acre for uplands and 0.01 acre for wetlands; total reflects rounding.

Herbaceous Wetland

Herbaceous wetland is a low-growing, seasonal wetland community that typically occurs in seasonally wet areas. This community is often found in swale areas or adjacent to drainages. Dominate species include annuals such as yellow monkey flower (*Erythranthe guttata*) and annual beard grass (*Polypogon monspeliensis*).

A total of 0.08 acres of herbaceous wetland occur as small patches in the northern portion of the study area where a low-lying swale occurs along the bottom of the slope that separates the site from SR-52. Dominant species include tall flatsedge (*Cyperus eragrostis*), sand spikerush (*Eleocharis montevidensis*), and mariposa rush (*Juncus dubius*).

Disturbed Wetland

This vegetation community is dominated by exotic wetland species that invade areas that have been previously disturbed or undergone periodic disturbances. These non-natives become established more readily following natural or human-induced habitat disturbance than the native wetland flora.

Characteristic species of disturbed wetlands include giant reed (*Arundo donax*), bristly ox-tongue (*Picris echioides*), cocklebur (*Xanthium strumarium*), and tamarisk (*Tamarix* spp.).

Disturbed wetland occurs within the eastern portion of the site along a man-made drainage ditch that receives and conveys storm water running off an existing, paved parking lot for the Cubic building. Dominant species within this community include annual beard grass, curly dock (*Rumex crispus*), grass poly (*Lythrum hyssopifolia*), and pampas grass (*Cortaderia* sp.). Approximately 0.07 acres of disturbed wetland are mapped within the study area.

Southern Willow Scrub

Southern willow scrub consists of dense, broad-leaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat and with scattered emergent cottonwood and western sycamores. This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest. In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest. Disturbed southern willow scrub contains a higher percentage of exotics and non-native species.

Approximately 0.03 acres of southern willow scrub dominated by Gooding's black willow (*Salix gooddingii*) occur within the study area to the west of Magnatron Boulevard along an unnamed drainage that is tributary to San Clemente Creek.

Baccharis Scrub – including Disturbed

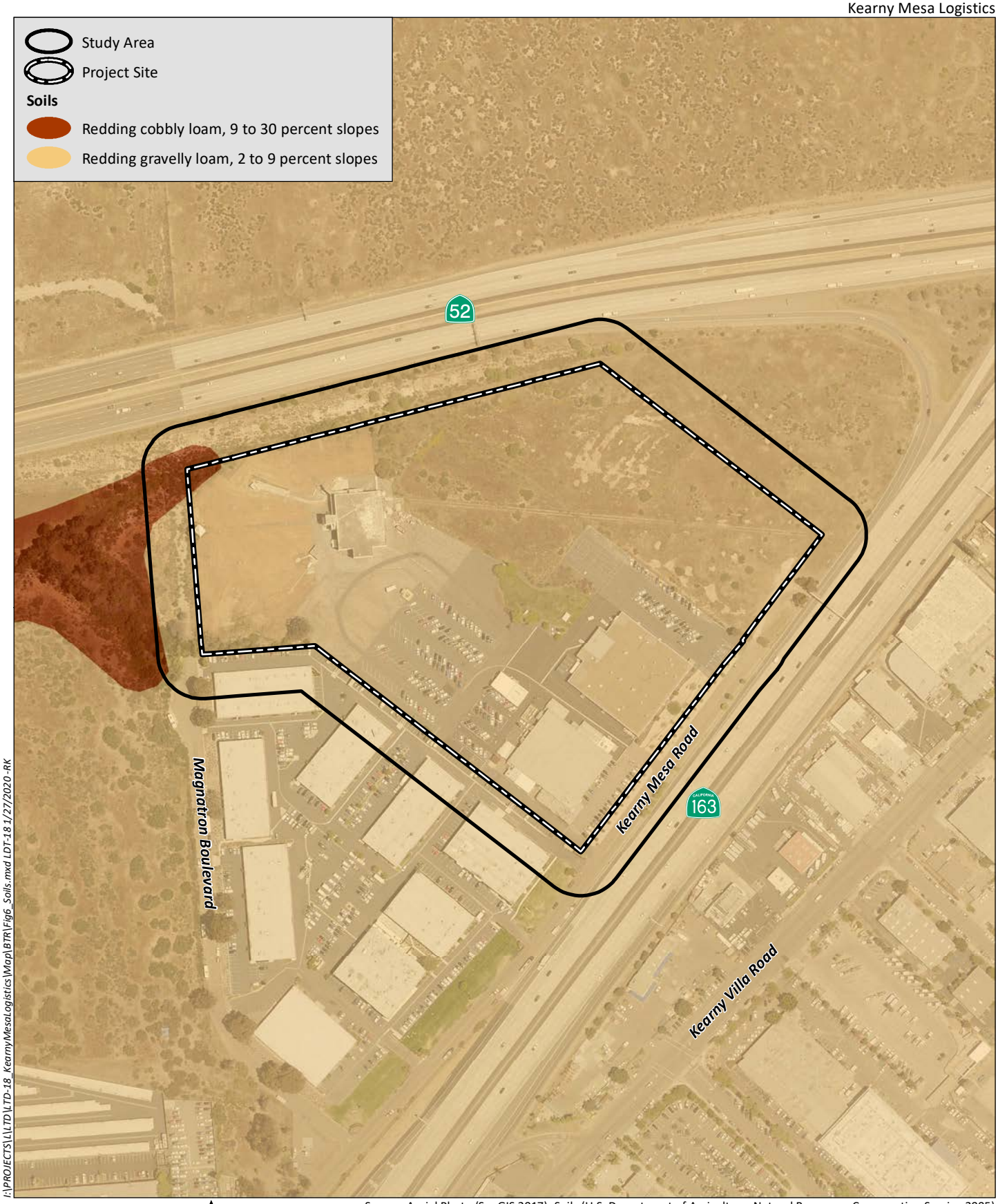
Baccharis scrub is a subtype of coastal sage scrub that is dominated by broom baccharis (*Baccharis sarothroides*) or coyote brush (*B. pilularis*). It often occurs on disturbed sites and areas with nutrient-poor soils, and on upper terraces of streams and in detention basins, where it may include goldenbush (*Isocoma menziesii*). Disturbed baccharis scrub is sparser and has a higher proportion of non-native, annual species.

A total of 1.7 acres Baccharis scrub (including disturbed) occur in the study area. Dominant species include broom baccharis with disturbed portions containing a higher percentage of non-native grasses such as common ripgut grass (*Bromus diandrus*), Italian ryegrass (*Festuca perennis*), and canary grass (*Phalaris* sp.).

Diegan Coastal Sage Scrub – including Disturbed

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 Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub but is sparser and has a higher proportion of non-native, annual species.

A total of 3.1 acres of Diegan coastal sage scrub (including disturbed) occurs in the study area. Dominant species include broom baccharis, deerweed (*Acmispon glaber*), and goldenbush (*Isocoma menziesii*).



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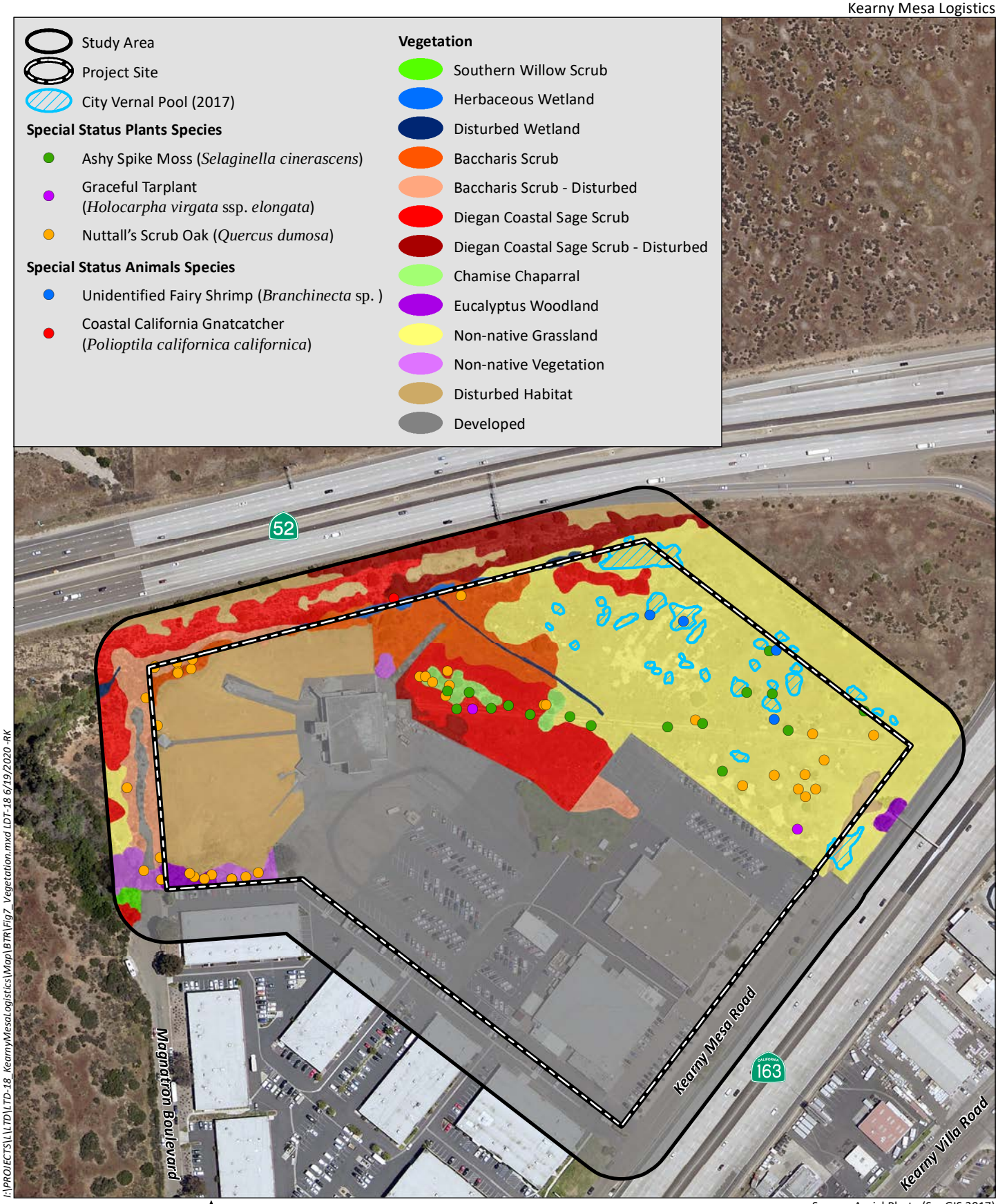
0 300 Feet

Source: Aerial Photo (SanGIS 2017); Soils (U.S. Department of Agriculture, Natural Resources Conservation Service 2005)

HELIX Environmental Planning

USDA Soils

Figure 6



Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

Vegetation Communities and Sensitive Resources

Figure 7

Disturbed portions of this community support a high percentage of non-native species such as fountain grass (*Pennisetum setaceum*), stinkwort (*Dittrichia graveolens*), and non-native grasses (*Bromus* spp.).

Chamise Chaparral

Chamise chaparral is the most widely distributed chaparral shrub and is dominated by the species chamise (*Adenostoma fasciculatum)*. This vegetation community is found from Baja to northern California in pure or mixed stands. Chamise chaparral's ubiquitous distribution may be the result of chamise's ability to regenerate from both an underground root crown and the production of seeds traits following fire events. It often dominates at low elevations and on xeric south facing slopes with 60 to 90 percent canopy cover. Along its lower elevation limit, chamise chaparral intergrades with coastal sage scrub. Mission manzanita (*Xylococcus bicolor)* and black sage (*Salvia mellifera*) are minor plant species associated within this vegetation community.

A total of 0.2 acres of chamise chaparral dominated by chamise occur within the eastern portion of the study area.

Non-Native Grassland

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include common ripgut grass, oats (*Avena* sp.), red brome (*Bromus rubens*), and mustard (*Brassica* sp.). The majority of non-native annual species comprising the biomass within this vegetation community originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. Intensive grazing and agricultural practices in conjunction with severe droughts has contributed to the successful invasion and establishment of these annual non-native species and the replacement of native grasslands with an annual dominated non-native grassland.

Approximately 7.0 acres of non-native grassland occur within the study area, predominately to the east of the existing Cubic development. Dominant species included common ripgut grass, Italian ryegrass, red brome, and scattered Nuttall's scrub oak (*Quercus dumosa*) shrubs.

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus, an introduced species that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic with the most common species being either the blue gum (*Eucalyptus gunnii*) or red gum (*E. camaldulensis* ssp. *obtusa*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. If sufficient moisture is available, this species becomes naturalized and is able to reproduce and expand its range.

Eucalyptus woodland was mapped within 0.2 acres of the study area. Small stands of eucalyptus are present at the eastern and western portions of the study area.

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 0.2 acres of this community occur in the southwestern portion of the study area and is comprised of eucalyptus, olive (*Olea europaea*), and wattle (*Acacia* sp.).

Disturbed Habitat

Disturbed habitat or disturbed land includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat within the study area consists of previously graded areas with ruderal vegetation such as stinkwort and Russian thistle (*Salsola tragus*). A total of 3.1 acres were mapped in the northern and eastern portions of the study area.

Developed

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Developed land in the study area totals approximately 14.8 acres and consists of the existing business development, Kearny Mesa Road, and Magnatron Boulevard.

3.6 FLORA

A total of 95 plant species were observed within the study area, of which 49 (52 percent) were native species and 46 (48 percent) were non-native species (Appendix E, *Plant Species Observed*).

3.7 FAUNA

A total of23 animal species were observed or detected within the study area during surveys conducted to date, including one invertebrate, four butterfly, 17 bird, and one mammal species (Appendix F, *Animal Species Observed or Otherwise Detected*).

4.0 SENSITIVE BIOLOGICAL RESOURCES

4.1 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 defines sensitive habitat as ESL in their Land Development Code Biology Guidelines. In the context of the City's MSCP Subarea Plan, wetlands and Tier I through IIIB uplands are considered sensitive habitat types.

Sensitive vegetation communities/habitat types mapped within the study area include disturbed wetland, herbaceous wetland, southern willow scrub, baccharis scrub (including disturbed), Diegan coastal sage scrub (including disturbed), chamise chaparral, and non-native grassland. Impacts to sensitive habitats typically require mitigation.

Eucalyptus woodland, non-native vegetation, disturbed habitat, and developed lands do not meet the definition of sensitive habitat under CEQA. Impacts to these vegetation communities do not require mitigation.

4.2 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 generally abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

4.2.1 Special Status Plant Species Observed

Three special status species were observed within the study area during project surveys as described below. An explanation of status codes is included as Appendix I, *Explanation of Codes for Plant and Animal Species*.

Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*)
Listing: --/--; CRPR 4.2
Distribution: Coastal Orange, San Diego, and Riverside Counties
Habitat(s): Occurs in coastal mesas and foothills with grassland habitats
Presence within the Study Area: Two patches of graceful tarplant totaling approximately 134 individuals were observed in the eastern portion of the study area within Diegan coastal sage scrub and non-native grassland (Figure 7).

Nuttall's scrub oak (*Quercus dumosa*)
Listing: --/--; CRPR 1B.1
Distribution: San Diego, Orange, and Santa Barbara counties
Habitat(s): Occurs on sandy or clay loam soils near the coast within coastal scrub, chaparral, cismontane woodland, and riparian woodland
Presence within the Study Area: A total of 41 shrubs were observed within the study area including 36 within the project boundary and five within eastern portion of the study area north of Magnatron Boulevard (Figure 7). Scattered individuals occur within the baccharis scrub in the northwestern portion of the site, non-native vegetation and eucalyptus in the southwestern portion of the site, and within Diegan coastal sage scrub, chamise chaparral, and non-native grassland in the eastern portion of the site.

Ashy spike-moss (*Selaginella cinerascens*)
Status: --/-- CNPS Rank 4.1
Distribution: Orange and San Diego counties; northwestern Baja California, Mexico
Habitat(s): Occurs on flat mesas in coastal sage scrub and chaparral. A good indicator of site degradation, as it rarely inhabits disturbed soils.
Presence within the Study Area: A total of 16 small patches of this species were observed within the eastern portion of the study area within Diegan coastal sage scrub, chamise chaparral, and non-native grassland (Figure 7).

4.2.2 Special Status Plant Species with Potential to Occur

Special status plant species that were not observed but may have potential to occur on site are listed in Appendix G, *Plant Species with Potential to Occur*. A total of nine special status plant species were determined to have high potential to occur on site: San Diego button-celery, San Diego mesa mint, San Diego goldenstar (*Bloomeria clevelandii*), Orcutt's brodiaea (*Brodiaea orcuttii*), long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), vernal barley (*Hordeum intercedens*), Spreading navarretia (*Navarretia fossalis*), and Orcutt's grass (*Orcuttia californica*). These species are further discussed in Appendix G. No additional species have a high potential to occur primarily due to the lack of suitable conditions such as appropriate habitat, soils, or hydrology.

4.3 SPECIAL STATUS ANIMAL APECIES

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.

4.3.1 Special Status Animal Species Observed or Otherwise Detected

One special status animal species was detected in study area during project surveys as described below. An explanation of status codes is included in Appendix I.

Coastal California gnatcatcher (*Polioptila californica californica*)
Status: FT/SSC; MSCP Covered
Distribution: Year-round resident occurring from southern California south to northwest Baja California. In California, the species is found from Ventura County south to San Diego County and east to the western portions of San Bernardino and Riverside Counties.
Habitat(s): Arid, open sage scrub habitats on gently sloping hillsides to relatively flat areas at elevations below 3,000 feet. California sagebrush is typically present as a dominant or co-dominant species.
Presence within the Study Area: A family group of three gnatcatchers consisting of two adults and one juvenile were observed outside of the project site in August 2019. The family group was observed foraging along the south facing hillside just north of the site (Figure 7).

4.3.2 Special Status Animal Species with Potential to Occur

Special status animal species present on site or with potential to occur within BSA are included in Appendix H, *Animal Species with Potential to Occur*. The species are grouped into invertebrates and vertebrates (fish, amphibians, reptiles, birds, and mammals) and alphabetized by scientific name. Five additional special status animal species that were not observed on the project site were determined to have high potential to occur: San Diego fairy shrimp (*Branchinecta sandiegonensis*), western spadefoot toad (*Spea hammondii*), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), Cooper's hawk (*Accipiter cooperii*), and California horned lark (*Eremophila alpestris actia*). These species are further discussed in Appendix H. No additional species have a high potential to occur primarily due to the lack of suitable habitat and dense urban and residential development in the area.

4.4 JURISDICTIONAL WATERS AND WETLANDS

The study area supports waterways, wetlands, and riparian habitat that would be subject to USACE (Figure 8, *Waters of the U.S.*), RWQCB (Figure 9, *Waters of the State*), and/or CDFW jurisdiction (Figure 10, *CDFW Juridictional Areas*) and would be considered City wetlands (Figure 11, *City ESL Wetlands*). The results of the delineation for WUS, WS, CDFW jurisdiction, and City wetlands are discussed below.

The study area supports a man-made drainage ditch, several herbaceous wetland pockets along a linear swale, and vernal pools associated with the U19 (Cubic) vernal pool complex which may be subject to USACE, RWQCB, and/or CDFW jurisdiction. The ditch is artificially created based on review of historical imagery and the as-built plans for the existing Cubic development. The primary function of this drainage ditch is to receive and convey storm water running off an existing, paved parking lot for the Cubic building. The headwaters and origin of the drainage ditch are characterized by the paved parking lot for the Cubic building and a pipe culvert and concrete headwall previously constructed to collect and convey storm water runoff from developed areas. Storm water sheet flows away from the existing building and across the paved parking lot, where it concentrates in the northern corner of the lot. Flows are then directed into the pipe culvert and concrete headwall. The pipe culvert runs beneath a section of abandoned track that traverses the property and exits to the north at another concrete headwall. Flows discharge from the headwall and outfall into shallow-sloping, undeveloped portions of the property. A shallow drainage ditch flows in a northwesterly direction which is broken up by a series of small sink holes where the soil has collapsed over time. The broken-up channel configuration of the ditch is likely due to infrequent, short-duration, low-volume, and low-velocity flows settling over less-stable surface soils that historically were never associated with a drainage feature or wet conditions. The downstream reach of the drainage ditch is characterized by a shallow swale that sheet flows toward the northern site boundary, where flows appear to terminate and dissipate against the berm created for SR-52.

Small patches of herbaceous wetland which are subject to USACE, RWQCB, and CDFW jurisdiction and qualify as City ESL wetlands are present along the northern project boundary within a small swale present at the toe of the south facing slope separating the site from SR-52. These patches of herbaceous wetland are associated with an historical east to west trending drainage path which was tributary to San Clemente Creek. The hydrological connection of this historical drainage to upstream sources was severed in 1980s through construction of SR-163 and SR-52, and commercial development to the east of SR-163. Current hydrology along the historical drainage path is limited to conveying sheet flow from the disturbed drainage and adjacent slopes. Flows are likely infrequent, short-duration, low volume, and low-velocity as evident through the lack of an established bed and bank. Topography is this area is relatively flat, gently sloping to the west.

The U19 vernal pool complex occur in the eastern portion of the site are subject to USACE and RWQCB jurisdiction and qualify as City ESL wetlands. Microtopographic data and observed conditions indicate that the U19 vernal pool complex generally drains to the north and west, depending on the location in the area. The U19 vernal pool watershed within the project site was estimated following the contour data, estimated flow lines, and vernal pool locations from the City data (Figure 11). The estimated boundaries of the watershed were drawn following the areas demonstrated by the contour data to be upslope and immediately surrounding each vernal pool in the complex. All areas within the project estimated to catch and convey water downslope to the pools were captured in the watershed boundaries. As depicted on Figure 11, the estimated watershed for the pools is confined to the northern and eastern portions of the project site and are separate from the eastern southeast-northwest trending

drainage ditch which serves as a clear physical and hydrological separation between the eastern U19 vernal pool complex and the remaining central and western portions of the project. As described above, the western portions of the site are defined by downsloping topography to the north and west, again, away from the vernal pool complex.

4.4.1 Waters of the U.S.

Potential USACE jurisdiction within the study area includes 0.95 acres of wetland WUS and 0.01 acres of non-wetland WUS, as summarized below in Table 3, *Waters of the U.S./State* and depicted on Figure 8.

Table 3
WATERS OF THE U.S./STATE

Jurisdictional Resource	Area (acres)[1]		
	Project Site	100-Foot Buffer	Total
Wetland Waters of the U.S./State			
Herbaceous wetland	0.03	0.05	0.08
Disturbed Wetland	0.04	0.03	0.07
Vernal Pool	0.35	0.45	0.80
Subtotal	***0.42***	***0.53***	***0.95***
Non-wetland Waters of the U.S./State			
Streambed	<0.01	0.01	0.01
Subtotal	***<0.01***	***0.01***	***0.01***
TOTAL	**0.42**	**0.54**	**0.96**

[1] Acres rounded to the nearest 0.01.

4.4.2 Waters of the State

Potential RWQCB-jurisdiction within the study area totals 0.95 acres of wetland WS and 0.01 acres of non-wetland WS, as summarized above in Table 3 and depicted on Figures 9.

4.4.3 California Department of Fish and Wildlife Jurisdiction

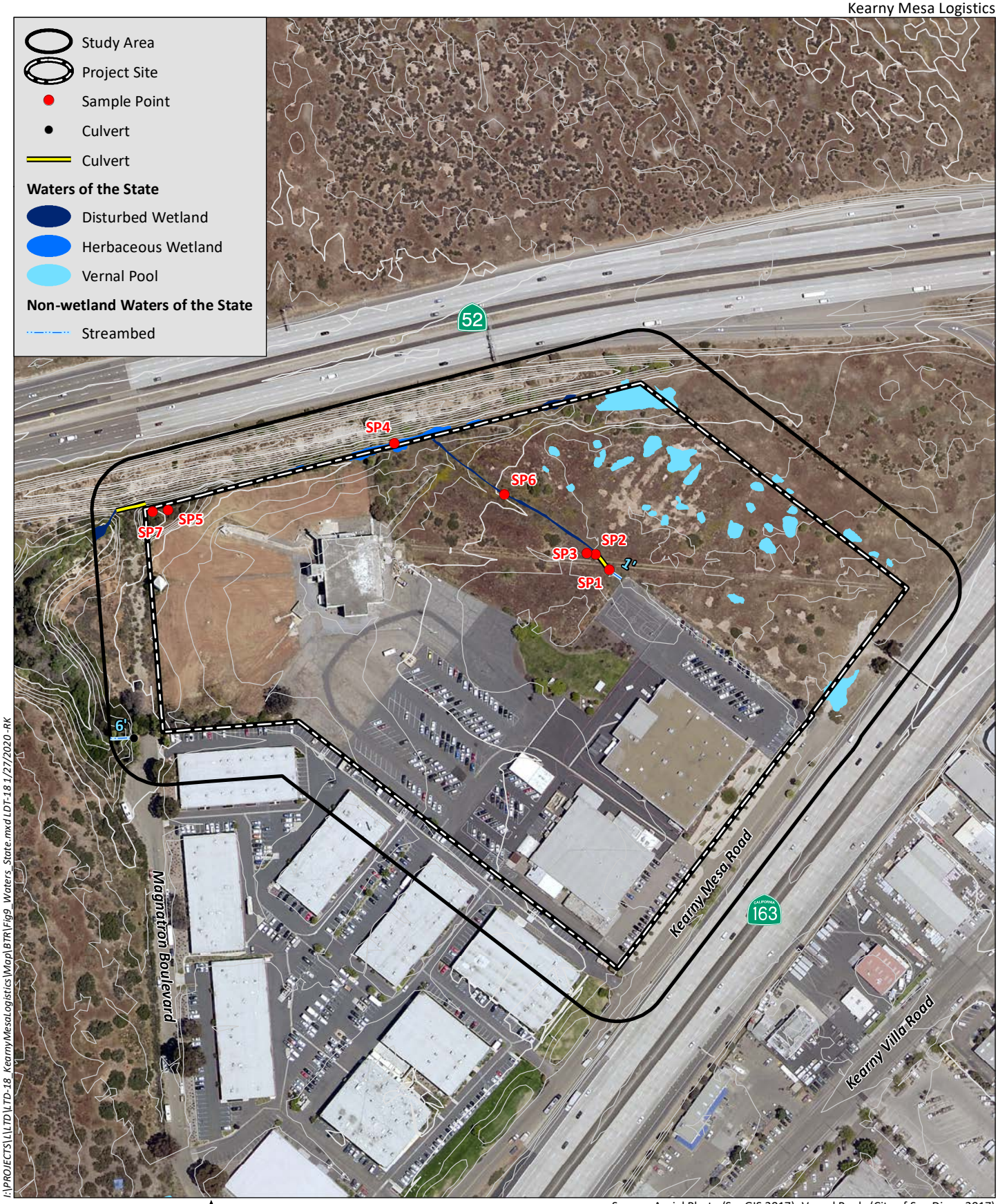
Potential CDFW jurisdiction the jurisdiction delineation survey area includes 0.004 acres of unvegetated streambed and 0.18 acres of riparian-vegetated streambed comprised of southern willow scrub, as summarized below in Table 4, *California Department of Fish and Wildlife Jurisdictional Areas*, and depicted on Figures 10.

Source: Aerial Photo (SanGIS 2017); Vernal Pools (City of San Diego 2017)

HELIX Environmental Planning

Waters of the U.S.

Figure 8

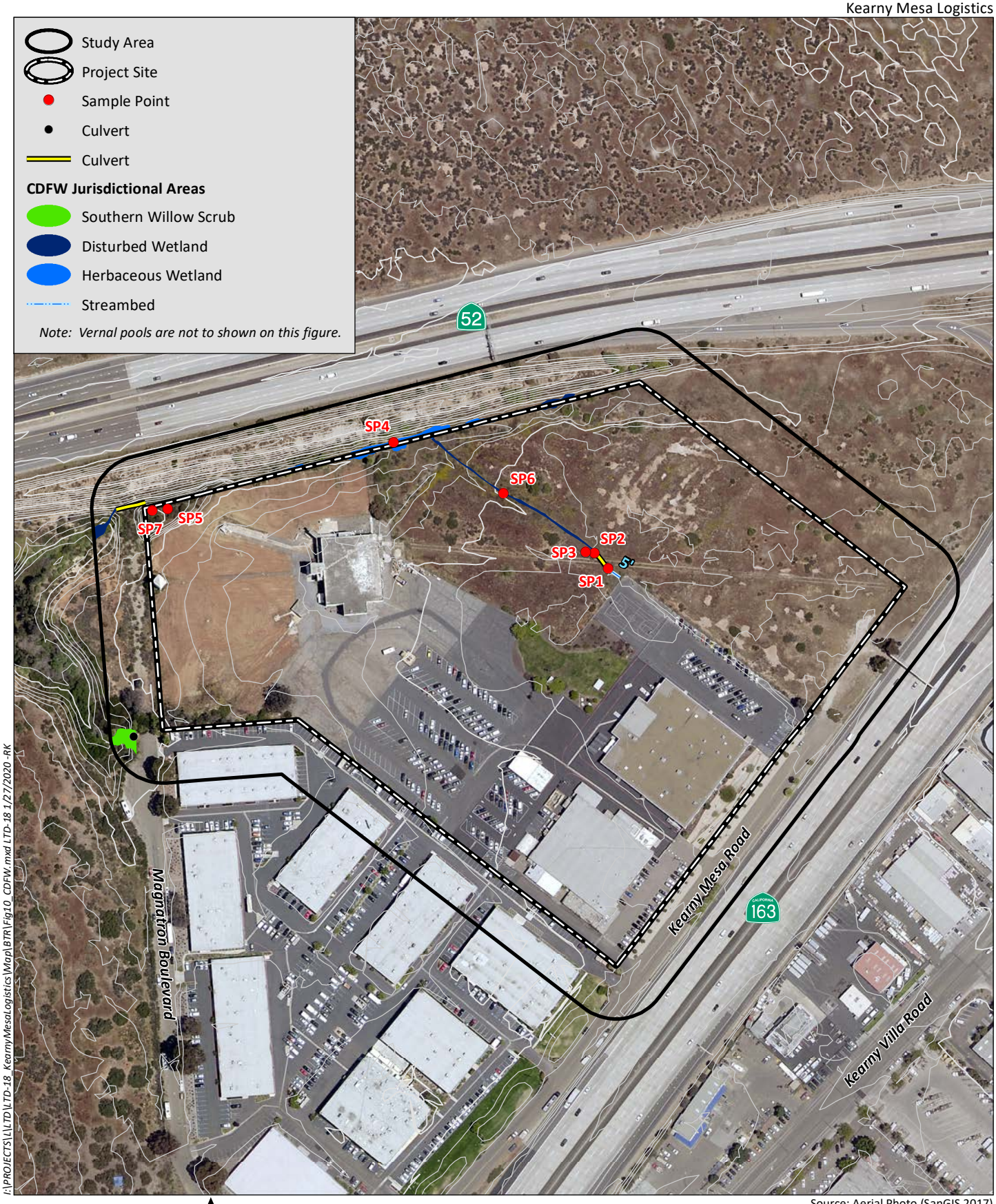


Source: Aerial Photo (SanGIS 2017); Vernal Pools (City of San Diego 2017)

HELIX Environmental Planning

Waters of the State

Figure 9



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0 250 Feet

Source: Aerial Photo (SanGIS 2017)

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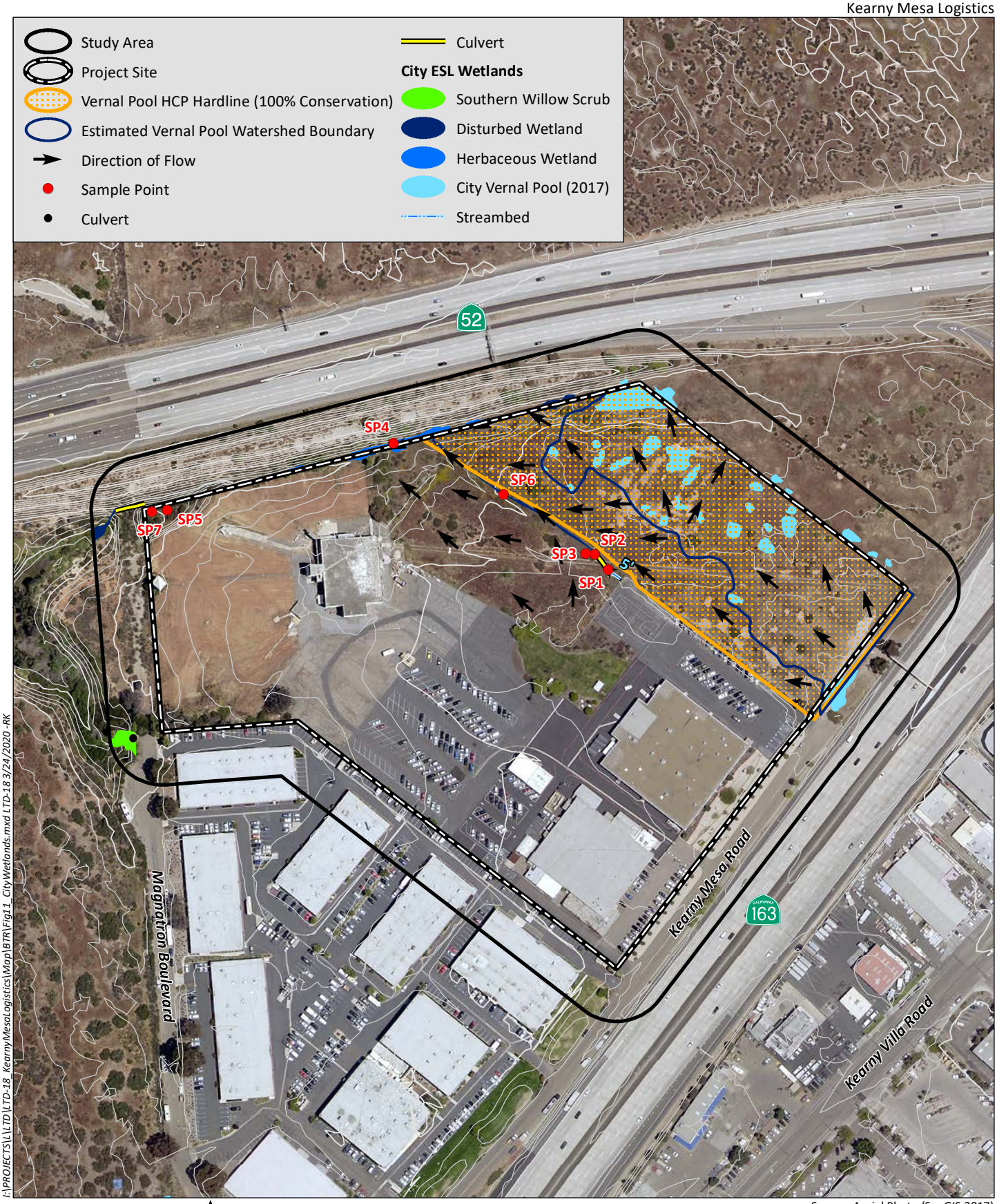
CDFW Jurisdictional Areas

Figure 10



Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

City ESL Wetlands

Figure 11

Table 4
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTIONAL AREAS

Habitat Type	Acreage[1]		
	Project Site	100-foot Buffer	Total
Riparian-Vegetated Streambed			
Herbaceous Wetland	0.03	0.05	0.08
Disturbed Wetland	0.04	0.03	0.07
Southern Willow Scrub	-	0.03	0.03
Subtotal	***0.07***	***0.11***	***0.18***
Unvegetated Streambed			
Streambed	<0.01	-	<0.01
Subtotal	***<0.01***	***-***	***<0.01***
TOTAL	**0.07**	**0.11**	**0.18**

[1] Acres rounded to the nearest hundredth.

4.4.4 City Environmentally Sensitive Lands Wetlands

Potential City wetlands within the study area total 0.98 acres as summarized below in Table 5, *City ESL Wetlands* and depicted on Figure 11.

Table 5
CITY ESL WETLANDS

Habitat Type	Acreage[1]		
	Project Site	100-foot Buffer	Total
Herbaceous Wetland	0.03	0.05	0.08
Disturbed Wetland	0.04	0.03	0.07
Southern Willow Scrub	-	0.03	0.03
Vernal Pool	0.35	0.45	0.80
TOTAL	**0.42**	**0.56**	**0.98**

[1] Acres rounded to the nearest hundredth.

4.5 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 does not occur within any known corridors or linkages. No portions of the study area function as linkage or corridor habitat. The site is bounded to the north, east, and south by existing

development. A small undeveloped City-owned parcel occurs to the west of the site but is separated from larger, contiguous blocks of undeveloped habitat to the north by SR-52. The project site is separated from open space areas associated with MCAS Miramar to the north by the SR-52. The western portion of the project site is developed, and the eastern portion is characterized by open, exposed areas that lack suitable cover and resources typically associated with wildlife movement areas. Common birds and mammals might move through the site to forage and during dispersal activities; however, they would not be expected to use the site as a wildlife corridor, linkage, or specific travel route to and from important resources. A narrow strip of habitat occurs off site to the north and runs parallel with SR-52. This off-site strip of habitat provides a connection between the larger habitat blocks on the project site and those further to the west within the Sanders Property. The off-site strip occurs outside of areas being considered for project development.

5.0 REGIONAL AND REGULATORY FRAMEWORK

Biological resources within the project site are subject to regulatory administration by the federal government, State of California, and City.

5.1 FEDERAL GOVERNMENT

5.1.1 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. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' use of a site and there is an associated federal action for a proposed impact (e.g., the USACE would initiate a Section 7 consultation with the USFWS for impacts proposed to USACE jurisdictional areas that may also affect listed species or their critical habitat). Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a Habitat Conservation Plan (HCP) when there is no federal nexus. The term "incidental" applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful

activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species' survival must be submitted for issuance of Section 10(a) permits. Pursuant to Section 10(a), the City was issued a take permit for federally listed species covered by its adopted MSCP Subarea Plan.

5.1.2 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 used to place restrictions on disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

5.1.3 Clean Water Act (Section 404)

Under Section 404 of the CWA, the USACE is charged with regulating the discharge of dredge and fill materials into jurisdictional WUS. The terms "WUS" and "jurisdictional waters" have a broad meaning that includes special aquatic sites, such as wetlands. WUS, as defined by regulation and refined by case law include: (1) the territorial seas; (2) coastal and inland waters, lakes, rivers, and streams that are navigable WUS, including their adjacent wetlands; (3) tributaries to navigable WUS, including adjacent wetlands; and (4) interstate waters and their tributaries, including adjacent isolated wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable WUS, the degradation or destruction of which could affect interstate commerce.

Section 401 of the CWA requires that any applicant for a federal license or permit to conduct any activity that may result in a discharge to WUS must obtain a Water Quality Certification, or a waiver thereof, from the state in which the discharge originates. In California, the RWQCB issues Water Quality Certifications.

5.2 STATE OF CALIFORNIA

5.2.1 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.

5.2.2 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. 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 threatened and endangered species if specific criteria are met. The City was issued a take permit for state listed species covered by its adopted MSCP Subarea Plan pursuant to Section 2081.

5.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in listed plants. The California ESA followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated rare under the California ESA.

5.2.4 California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Sections 1600 *et seq*. of CFG Code require notification and, if required, a Streambed Alteration Agreement for any activity that would alter the flow, change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require notification include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement.

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.

5.2.5 Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and RWQCB regulate the discharge of waste into waters of the State via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne) as described in the California Water Code. The California Water Code is the State's version of the federal CWA. Waste, according to the California Water Code, includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

State waters that are not federal waters may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in discharge of waste into waters of the State. The RWQCB will issue Waste Discharge Requirements or a waiver. The Waste Discharge Requirements are the Porter-Cologne version of a CWA Section 401 Water Quality Certification.

5.3 CITY OF SAN DIEGO

5.3.1 Environmentally Sensitive Lands

Impacts to biological resources in the City must comply with the City's Environmentally Sensitive Lands 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 that 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 Land Development Manual Biology Guidelines (City 2018a). 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.

In addition to restricting impacts to wetland habitats, the ESL regulations restrict development within the MHPA, including required impact avoidance areas around raptor nesting locations (specifically, Cooper's hawk, golden eagle [*Aquila chrysaetos*], burrowing owl [*Athene cunicularia*], and northern harrier [*Circus cyaneus*]), and known locations of coastal California gnatcatcher and southwestern pond turtle (*Actinemys pallida*). The ESL regulations also impose seasonal restrictions on grading where development may impact the following bird species: coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, tricolored blackbird (*Agelaius tricolor*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), western snowy plover (*Charadrius nivosus nivosus*), and California least tern (*Sternula antillarum browni*).

5.3.2 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.

MHPA Adjacency Guidelines

The City's MSCP Subarea Plan addresses indirect impacts to preserve areas from adjacent development in Section 1.4.3, Land Use Adjacency Guidelines (LUAGs; City 1997). The LUAGs provide requirements for land uses adjacent to the habitat preserve in order to minimize indirect impacts from drainage,

toxics, lighting, noise, barriers, invasive species, brush management, and grading to the sensitive resources contained therein. Projects that are within or adjacent to the MHPA must demonstrate compliance with the LUAGs.

The project site is located adjacent the VPHCP Hardline which is part of the City's MHPA. The project's compliance with the City's LUAGs is summarized below:

Drainage

- *All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA.*

  The proposed project would primarily occur within the existing development and disturbed areas. Runoff from new and proposed parking lots and developed areas would be directed into the project's on-site water quality treatment facilities and would not drain directly into the MHPA.

- *All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.*

  Best Management Practices (BMPs) would be implemented during project construction to control runoff, erosion, and contaminants, as necessary, in order to prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might be contained within stormwater. The BMP program will meet applicable requirements of the State Water Resources Control Board and the City's Municipal Code and Storm Water Standards Manual (City 2018b). Exotic plant materials are further restricted from the project's landscaping, thereby preventing the introduction of a new sources of exotics at the project site.

Toxins

- *Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.*

  The proposed project does not involve agriculture or creation of recreational areas such as playing fields or any other uses that would introduce toxins, chemicals, or by-products.

Lighting

- *Lighting of all developed adjacent areas should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.*

  Project lighting will be shielded and directed away from the MHPA/VPHCP Hardline area to protect resources in the MHPA from artificial night lighting. Additionally, hardscaping and native vegetation comprised of lemonade berry (*Rhus integrifolia*), or similar taller native shrub

species, will be installed at the edge of the parking lot directly adjacent to the VPHCP Hardline area to prevent car headlights from shining directly into the MHPA/VPHCP Hardline area.

Noise

- *Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife use of the MHPA.*

  The project site is characterized by existing commercial development that is bordered by heavily trafficked highways (SR-52 and SR-163). The existing ambient noise from regular vehicle traffic is constant and relatively high from these uses. The proposed project would retain similar vehicular uses as compared to the existing commercial uses. Increased activity is expected by large trucks and equipment use; however, these uses are not expected to result in an adverse noise impact on wildlife use of the MHPA/VPHCP Hardline area considering the site's adjacency with the highways.

- *Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species.*

  If unmitigated and implemented during certain times of the year, temporary noise generated from such sources as grubbing, earthwork, and construction could adversely and temporarily impact local wildlife potentially present within the adjacent MHPA/VPHCP Hardline areas. Such impacts could occur the coastal California gnatcatcher if the activities are implemented during the gnatcatcher breeding season (which is defined by the City as March 1 to August 15). To comply with the City's LUAGs and avoid potential indirect impacts to coastal California gnatcatcher in the MHPA, construction activities adjacent to the MHPA/VPHCP Hardline area will be implemented outside of the gnatcatcher breeding season.

  If construction activities adjacent to the MHPA/VPHCP Hardline area are unable to be avoided the breeding season for coastal California gnatcatcher, USFWS protocol surveys would be conducted in suitable habitat prior to the construction implementation to determine species presence/absence. If protocol surveys are not conducted, presence of the species would be assumed, and the implementation of noise attenuation and biological monitoring would be required during the gnatcatcher breeding season if construction would generate noise levels higher than 60dBA or ambient (whichever is higher).

Barriers

- *New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.*

  The project does not propose new development within the MHPA/VPHCP Hardline area. Perimeter fencing would be installed at the edges of the VPHCP Hardline preserve area to direct public access to appropriate locations and prevent authorized access into the preserve. Preserve fencing would consist of 3-strand smooth wire, split rail, or similar fencing that allows for wildlife passage.

Invasive Plant Species

- *No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.*

  BMPs during construction would include measures to avoid introduction of invasive plants into construction areas by equipment. Proposed landscaping associated with the project does not include plant species identified as invasive by the California Invasive Plant Council (2019). Landscaping and plantings proposed adjacent to the MHPA/VPHCP Hardline area will consist of native plant species and strictly prohibit the use of invasive, non-native plant species.

Brush Management

- *New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and 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 brush management zones would not extend beyond the project's permanent footprint; does not encroach into the MHPA/VPHCP Hardline area; and would not result in any additional impacts to biological resources.

Grading/Land Development

- *Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.*

  All manufactured slopes are located within the development footprint and do not occur within the MHPA/VPHCP Hardline area.

5.3.3 Vernal Pool Habitat Conservation Plan

In October 2009, the USFWS and City entered into a Planning Agreement for the development of the City's VPHCP (City 2020) covering vernal pool habitats and associated species in the City. This plan allows for the incidental take of the following seven threatened and endangered species (VPHCP covered species) that do not have federal coverage under the City's MSCP Subarea Plan:

- San Diego fairy shrimp
- San Diego button-celery
- San Diego Mesa mint
- Spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- Otay Mesa mint (*Pogogyne nudiuscula*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)

The VPHCP is compatible with the MSCP and expands upon the City's existing MHPA with the conservation of additional lands that support vernal pools and vernal pool covered species. The City's Vernal Pool Management and Monitoring Plan (City 2017) outlines the VPHCP management and monitoring strategy and how it will be implemented by the City. It provides a framework plan that outlines site-specific management and monitoring actions for the vernal pool complexes that will be managed as part of the MHPA to achieve the VPHCP objectives.

VPHCP Avoidance and Minimization Measures

The City's VPHCP includes measures to avoid or minimize impacts to conserved vernal pools adjacent to development in Section 5.2.1, *Avoidance and Minimization Measures*. These measures provide requirements for land uses adjacent to the habitat preserve (VPHCP Hardline and MHPA) in order to minimize indirect impacts to the VPHCP covered species contained therein. The discussion below addresses the project's compliance with the VPHCP's general avoidance and minimization measures:

- *Measure 1 – Development adjacent to the MHPA shall slope away from avoided pools.*

  The proposed development will be constructed to slope away from the VPHCP Hardline to ensure that runoff form the project does not flow into the pools. As detailed in Section 4.4 and shown on Figure 11, the U19 vernal pool complex and associated vernal pool watershed is confined to the northern and eastern portions of the project site and are hydrologically separate from the proposed development and eastern drainage ditch.

- *Measure 2 – Temporary fencing with silt fencing shall be required.*

  The project's construction limits would be demarcated with construction and silt fencing to ensure inadvertent impacts to the MHPA/VPHCP Hardline area located adjacent to construction work areas are avoided. Final construction plans and the Biological Construction Mitigation/Monitoring Exhibit (BCME) will include photographs that show the fenced limits of impact and all areas of vernal pools to be avoided.

- *Measure 3 – Impacts from fugitive dust would be avoided and minimized through watering and other appropriate measures.*

  Impacts from fugitive dust during construction grading shall be avoided and minimized through routine watering with a watering truck or other appropriate measures that are standard construction practices.

  Measure 4 – A qualified biologist approved by the City shall be on site during project construction activities to help ensure compliance with all mitigation measures identified in the CEQA environmental document. The biologist shall be knowledgeable of vernal pool species biology and ecology and will perform the duties detailed in Section 5.2.1 of the VPHCP.

  A Qualified Biologist knowledgeable of vernal pool species biology and ecology and approved by the City will monitor construction and oversee compliance with all mitigation measures identified in the CEQA environmental document. Construction activities adjacent to the VPHCP Hardline area will incorporate additional monitoring measures, as appropriate, consistent with those detailed in Section 5.2.1 of the VPHCP including, but not limited to, verification that construction activities do not exceed the authorized work limits and that good housekeeping is

adhered to during construction. The Qualified Biologist should have the authority to halt construction activities and will report any non-compliance to the City. Reporting should be submitted to the City during project construction and a final report should be prepared following completion of construction that documents the project's general compliance with conservation measures.

- *Measure 5 – All activities, vehicles, equipment, and construction materials shall be strictly limited to the fenced project footprint and the project shall be kept clean of trash and debris.*

  Construction activities, staging areas, and equipment shall be limited to the fenced project limits. A Qualified Biologist will monitor construction activities and project compliance with all mitigation measures including removal of trash and debris.

- *Measure 6 – Equipment maintenance, staging, and disposal of fuel, oil coolant shall occur outside of wetlands, and within designated areas in the fenced project impact limits only.*

  Designated equipment staging/maintenance/fueling/ etc. shall be demarcated on the final construction plans. Additionally, a Qualified Biologist will monitor project compliance regarding equipment.

- *Measure 7 – Grading activities immediately adjacent to vernal pools shall be timed to avoid wet weather to minimize potential impacts (e.g., siltation) to the vernal pools*.

  The project avoids the VPHCP Hardline area; therefore, no construction activities will not occur adjacent to vernal pools or associated vernal pool watershed. Nevertheless, the project shall implement a BMP program during construction to control runoff, erosion, and contaminants, as necessary. BMPs, including silt fencing, would be installed to prevent the spread of silt from the construction areas into adjacent vernal pools. Additionally, a Qualified Biologist will monitor construction activities and ensure project compliance will all mitigation measures.

- *Measure 8 – Topsoil shall be salvaged from impacted pools supporting listed fairy shrimp and be consistent with approved restoration plan requirements.*

  No vernal pools will be impacted by the proposed project; therefore, no mitigation or vernal pool habitat restoration is required or proposed by the project.

- *Measure 9 – Permanent protective fencing shall be installed along any interface with developed and preserved areas. Fencing shall be shown on the development plans. Signage for the biological conservation easement area shall be posted and maintained at conspicuous locations.*

  Permanent protective fencing and signage will be installed along the at the edges of the VPHCP Hardline preserve area to direct public access to appropriate locations and prevent authorized access into the preserve. The location of the preserve fencing shall be shown on final construction plans. Preserve fencing would consist of 3-strand smooth wire, split rail, or similar fencing that allows for wildlife passage.

6.0 ANALYSIS OF PROJECT IMPACTS AND MITIGATION

This section describes potential direct and indirect impacts associated with implementation of the proposed project, as well as outlining the criteria used for determining significance of impacts. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including drainage and toxins (water quality), lighting, noise, barriers, invasive species, brush management, and grading.

6.1 CRITERIA FOR DETERMINING IMPACT SIGNIFICANCE

The following guidance (Appendix I, City Biology Guidelines 2018) is used to determine potential significance of impacts on biological resources pursuant to the City's Significance Determination Thresholds (City 2018). A project would result in a significant or potentially significant biological resources impact if it would result in:

- A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP, VPHCP, or other local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- A substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development Manual or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through the direct removal, filling, hydrological interruption, or other means;
- Substantial interference with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, VPHCP, or impediment of the use of native wildlife nursery sites;
- A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan, either within the MSCP or VPHCP plan area or in the surrounding region;
- An introduction of land use within an area adjacent to the MHPA that would result in adverse edge effects;
- A conflict with any local policies or ordinances protecting biological resources; or
- An introduction of invasive plant species into a natural open space area.

6.2 SPECIAL STATUS SPECIES

Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP, VPHCP, or other local or regional plans, policies or regulations, or by CDFW or USFWS?

6.2.1 Impact Analysis

Several special status plant and animal species were observed in the study area during biological surveys. The proposed project has been specifically designed to occur within existing developed and disturbed areas associated with previous development (Figure 12, *Vegetation Communities and Sensitive Resources/Impacts*). However, portions of the proposed project footprint, including off-site impacts associated with the extension of Magnatron Boulevard, would impact sensitive uplands habitats where special status plant and animal species have been detected or have potential to occur. Potential project effects on special status plant and animal species are described below.

Special Status Plant Species

Three special status plant species were observed within the study area: graceful tarplant, Nuttall's scrub oak, and ashy spike-moss. None of these are federally or State listed species, City narrow endemic plant species, or covered under the MSCP or VPHCP. Generally, impacts to plant species with a CRPR of 1 or 2 can be considered potentially significant. CRPR 3 and 4 species are relatively widespread and impacts to such species would not substantially reduce their populations in the region and are not typically significant. Nuttall's scrub oak has a CRPR of 1B.1, ashy spike-moss has a CRPR of 4.1, and graceful tarplant has a CRPR of 4.2.

A total of 42 Nuttall's scrub oak shrubs were observed within study area during project survey. Thirty-six (36) of those shrubs were observed within the northwestern, southwestern, and eastern portions of the project site and an additional 5 shrubs were observed to the east of the site to the north of Magnatron Boulevard. The proposed project would result in impacts to a total of 23 Nuttall's scrub oak shrubs consisting of 20 shrubs within the project site and 3 off-site (Figure 12). The project would avoid impacts to the remaining 19 scrub oak shrubs with 12 of those shrubs located within the VPHCP Hardline area. The 12 scrub oak shrubs located within the VPHCP Hardline area will be preserved as part of the proposed project. Nuttall's scrub oak within the study area is part of a larger population that occurs within the surrounding area and does not represent a geographically isolated or significant population. The species occurs to the west of the site within City-owned lands and to the north within MCAS Miramar. Project impacts to individual Nuttall's scrub oak shrubs would not jeopardize the continued viability of scrub oak within the region as the species would continue to persist both within the project site and within surrounding public lands. Furthermore, the project would preserve 12 Nuttall's scrub oak shrubs within the eastern portion of the site including 5.8 acres of habitat for the species. Therefore, impacts to Nuttall's scrub oak are less than significant and no mitigation is required.

Ashy spike-moss and graceful tarplant were identified within the undeveloped eastern portions of the property both within and outside of the proposed impact footprint. A total of 16 small patches of ashy spike-moss were observed of which eight would be impacted (Figure 12). The remaining eight patches of ashy spike-moss would be avoided and further preserved within the VPHCP Hardline area. Two patches of graceful tarplant totaling approximately 134 individuals were observed. The project would result in impacts to one of these patches consisting of approximately four individuals. The larger patch of

graceful tarplant totaling approximately 130 individuals would be avoided by the proposed project and further preserved within the VPHCP Hardline area. Impacts to both ashy spike-moss and graceful tarplant are less than significant based on the species' relatively low sensitivity and numerous recorded occurrences within the project vicinity, indicating that the species' population is relatively stable in the region. As CRPR 4.1 and 4.2 plants, respectfully, these species have been assigned to a watch list for plants of reported limited distribution and moderate degree and immediacy of threat by the CNPS. The impacted individuals are not part of a population at the periphery of the species' range, located in an area where the taxon is especially uncommon, or occurring on unusual substrates. There are numerous documented occurrences of both species throughout the surrounding area indicating that the project site does not represent a geographically significant population. Lastly, existing populations of both species are located within the VPHCP Hardline area which will be preserved as part of the proposed project. Therefore, impacts to ashy spike-moss and graceful tarplant are less than significant and no mitigation is required.

In additional to the observed species, the federal and state listed endangered San Diego mesa mint and federal and state listed endangered San Diego button-celery have reportedly been previously documented within several of the U19 vernal pool complex pools (City 2017). In addition to being federal and state listed species, both species are covered under the VPHCP. The proposed project will avoid impacts to vernal pool habitat located within the eastern portion of the project site and within the VPHCP Hardline boundary. No other vernal pools, basins, or other suitable ponded areas with potential to support these species were observed within this project site. The VPHCP Hardline area will be preserved and managed in accordance with a site-specific vernal pool management plan to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017). Therefore, no impacts would occur to San Diego mesa mint, San Diego button-celery, or other vernal pool species with potential to occur on-site and no mitigation is required.

Special Status Animal Species

No special status animal species were observed within the project site itself during biological surveys. However, USFWS-designated critical habitat for the San Diego fairy shrimp occurs within the eastern portion of the site (Figure 4) and the species has reportedly been previously documented within several of the U19 vernal pool complex pools (City 2017). Fairy shrimp of the genus *Branchinecta* were observed within four of the eastern vernal pools, though the individuals were not identified to the species level (Figure 7). Additionally, one special status animal species, coastal California gnatcatcher, was observed off site to the north in August 2019 (Figure 7). The potential effects of the project on these species are discussed below.

San Diego Fairy Shrimp

San Diego fairy shrimp is a federal listed endangered species and covered under the City's VPHCP (City 2020). The species has reportedly been previously documented within several of the U19 vernal pool complex pools (City 2017) and unidentified fairy shrimp were observed within four of the pools in March 2020; however, the proposed project will avoid impacts to vernal pool habitat located within the eastern portion of the project site and within the VPHCP Hardline boundary. No other vernal pools, basins, or other suitable ponded areas with potential to support the species were observed within this project site. The VPHCP Hardline area will be preserved and managed in accordance with a site-specific vernal pool management plan to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017). Therefore, no impact would occur to San Diego fairy shrimp and no mitigation would be required.

USFWS-designated critical habitat for San Diego fairy shrimp occurs within the project site (Figure 4); however, the portions of the critical habitat overlay that would be impacted by the project were confirmed to lack the primary constituent elements (PCEs) of the species' critical habitat. The impacted areas support sloping land characterized by upland habitat types and disturbed land. No adverse modification to USFWS-designated critical habitat would occur because no vernal pools or vernal pool indicator species occur within the area to be impacted. The elevational contour data and conditions observed during the project's biological surveys conducted to date suggest that suitable habitat for San Diego fairy shrimp does not occur in the portion of the designated critical habitat west of the VPHCP Hardline boundary that would be impacted. Furthermore, the impact area is isolated from any vernal pool watershed area, lacks all three PCEs defined by the USFWS for San Diego fairy shrimp critical habitat, and lacks optimal conditions for the creation of new vernal pools and introduction of VPHCP covered species. Therefore, proposed impacts would not have an adverse effect on designated critical habitat for the San Diego fairy shrimp and no mitigation is required.

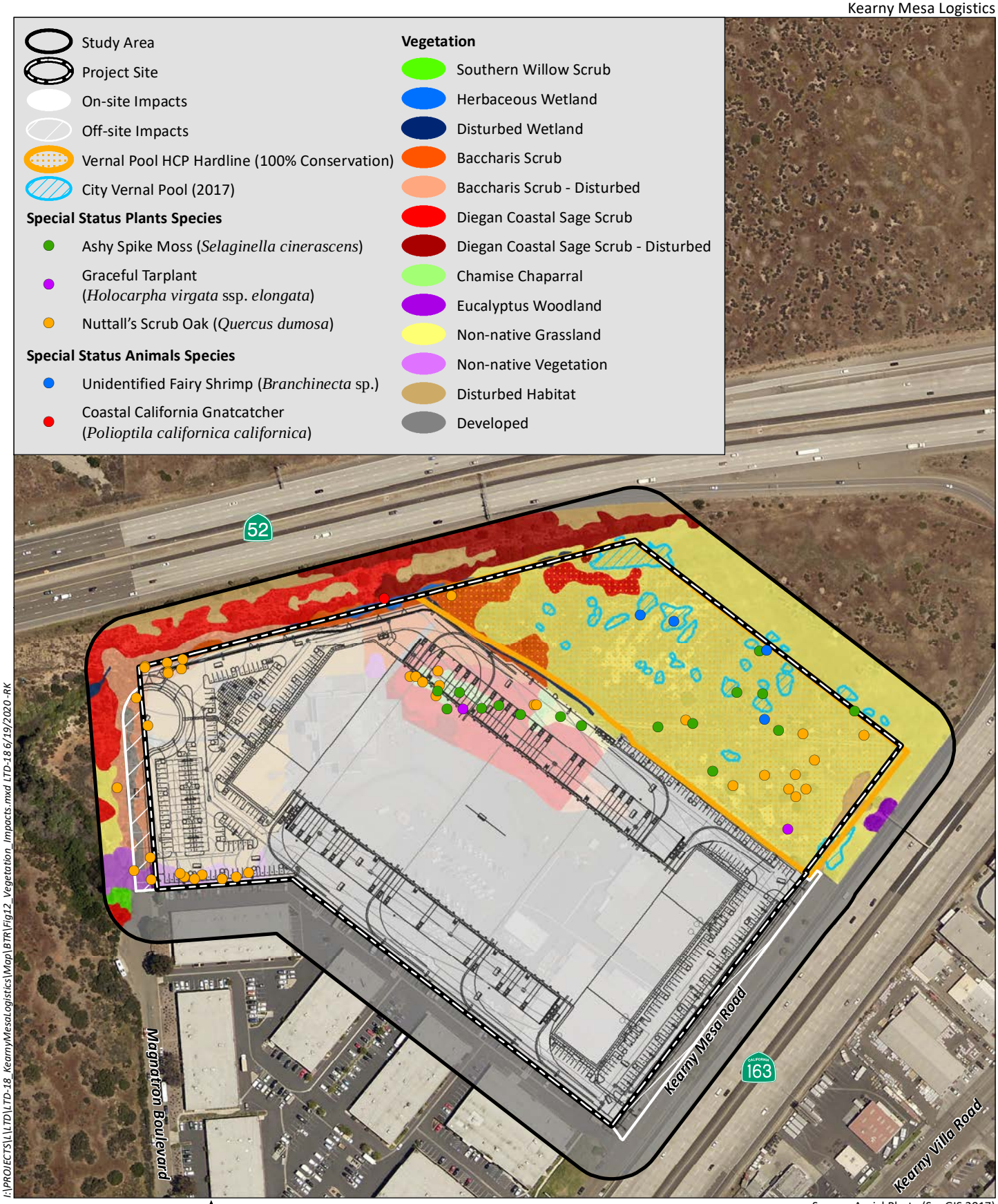
Coastal California Gnatcatcher

The coastal California gnatcatcher is a federally threatened species and covered species under the MSCP. Two adult gnatcatcher and one juvenile were observed foraging off site (i.e., outside of the project site) along the south facing hillside just north of the site (Figure 7). Potentially suitable Diegan coastal sage scrub habitat for the species occurs within the eastern portion of the site and to the west of the site north of Magnatron Boulevard. The project would impact a total of 2.0 acres of potential gnatcatcher habitat consisting of Baccharis scrub and Diegan coastal sage scrub. Project direct impacts on potential gnatcatcher habitat are restricted to take authorized areas outside of the MHPA and are covered activities under the MSCP; therefore, project impacts to potential coastal California gnatcatcher habitat are considered less than significant.

However, if construction activities take place within 500 feet of suitable gnatcatcher habitat located within the MHPA/VPHCP Hardline area during the gnatcatcher breeding season (March 1 and August 15), indirect impacts from construction noise could result in a potentially significant impact on nesting gnatcatcher. If construction activities adjacent to the MHPA/VPHCP Hardline area are unable to avoid the breeding season for coastal California gnatcatcher, USFWS protocol surveys would be conducted in suitable habitat prior to the construction implementation in accordance with mitigation measure **BIO-1** to determine species presence/absence. If protocol surveys are not conducted, presence of the species would be assumed, and the implementation of noise attenuation and biological monitoring would be required during the gnatcatcher breeding season if construction would generate noise levels higher than 60dBA or ambient (whichever is higher). Implementation of mitigation measure **BIO-1** would reduce potential noise impacts to breeding coastal California gnatcatcher to a less than significant level.

6.2.2 Nesting Birds

The project site contains trees, shrubs, and other vegetation that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and CFG Code. Significant impacts could occur to nesting birds if suitable nesting habitat is removed during the general bird breeding season (February 15 to August 31). As a regulatory requirement, the project must comply with the regulations and guidelines of the MBTA and CFG Code.



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0 250 Feet

Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

Vegetation Communities and Sensitive Resources/Impacts

Figure 12

6.2.3 Mitigation Measures

The project is required to comply with the MBTA and CFG Code, which would ensure that no significant impacts on nesting birds, including special status species and raptors would occur.

Potential indirect impacts to coastal California gnatcatcher would be reduced to below a level of significance through implementation of the measures **BIO-1**.

BIO-1 **Coastal California Gnatcatcher Avoidance:** No clearing, grubbing, or other construction activities shall occur within 500 feet of the MHPA between March 1 and August 15 (California gnatcatcher breeding season) until the following requirements have been met to the satisfaction of the City Manager:

A. 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 [dB(A)] hourly average, or exceeding ambient noise levels if greater than 60 dBA, for the presence of the coastal California gnatcatcher. Surveys for coastal California gnatcatcher shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service within the breeding season prior to the commencement of any construction. If gnatcatcher are present, then Condition I and either II or III must be met:

I. Between March 1 and August 15, no clearing or grubbing of occupied gnatcatcher habitat shall be permitted within the MHPA. 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 dB hourly average or ambient, whichever is higher, at the edge of occupied gnatcatcher habitat within the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dB 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 commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under supervision of a qualified biologist; OR

III. At least two weeks prior to commencement of construction activities, under direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB hourly average or ambient (whichever is higher) at the edge of habitat (within the MHPA) occupied by the coastal California gnatcatcher. Concurrent with commencement of construction activities and construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of occupied habitat area within the MHPA to ensure that noise levels do not exceed 60 dB or ambient (whichever is higher) 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.

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

B. If coastal California gnatcatchers are not detected within the MHPA during the protocol surveys, 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 barriers, are necessary between March 1 and August 15, as follows:

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

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

6.2.4 Conclusions

Project implementation could result in significant impacts to nesting birds and raptors. Implementation of mitigation measure **BIO-1** would reduce impacts to less than significant.

6.3 RIPARIAN HABITAT AND SENSITIVE NATURAL COMMUNITIES

Would the project have a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

6.3.1 Impact Analysis

The proposed project would result in direct impacts to the following sensitive vegetation communities: 0.8 acres of Tier II baccharis scrub (including disturbed), 1.2 acres of Tier II Diegan coastal sage scrub (including disturbed), 0.2 acres of Tier IIIA chamise chaparral, and 0.1 acres of Tier IIIB non-native grassland (Figure 12, *Vegetation Communities and Sensitive Resources/Impacts*). Impacts to these communities would be considered significant and require mitigation. Implementation of mitigation measure **BIO-2**, which requires the contribution to the City's Habitat Acquisition Fund (HAF) in accordance with ratios provided in Table 3 of the City's Biology Guidelines (City 2018a), would reduce impacts to below a level of significance. The project site is predominately characterized (62.6 percent) by disturbed and developed lands and surrounded by existing development. Undeveloped lands and

sensitive vegetation communities within the project site total 7.77 acres (37.4 percent), representing a small, isolated area bordered by the SR-52 to the north and SR-163 to the east. The proposed project has been designed to avoid areas of higher biological value including sensitive wetland and vernal pool resources which would be further preserved within the project's biological open space/preserve and managed in accordance with a site-specific vernal pool management plan to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017b). Project impacts to sensitive vegetation communities would occur to 2.15 acres consisting of disturbed coastal sage scrub, a small stand of chamise chaparral, and non-native grassland which are located outside of MHPA/VPHCP Hardline and do not contain long-term conservation value for special status species and sensitive biological resources. As such, the project would meet the City's intended use for the HAF as impacts to sensitive vegetation communities would be less than 5 acres representing a small, isolate site that does not contain long-term conservation value. A small section of railroad track associated with previous site uses occurs within the eastern portion of the site and extends into the VPHCP Hardline area. The portion of the track that is located within the proposed project footprint will be removed, but will remain in place where it bisects the project's wetland buffer and VPHCP Hardline area to prevent unnecessary disturbance and impacts to City ESL wetlands and sensitive biological resources located within these areas. The continued presence of the railroad track within the project's biological open space/preserve would not impact the long-term conservation viability of vernal resources present within the area. The track is nonoperational and does not bisect any of the mapped vernal pools. Removal of the track would result in a higher level of disturbance and impact to vernal pool resources, wetland resources, and other sensitive biological resources compared to leaving the tracks in place.

Project impacts on sensitive natural communities are depicted on Figure 12 and summarized below within Table 6, *Vegetation Communities/Land Cover Type Impacts*.

Table 6
VEGETATION COMMUNITIES/LAND COVER TYPE IMPACTS

Vegetation Community/Land Cover Type[1]	MSCP Tier[2]	Impacts[3] (acres)[4]			Mitigation Ratio[5]	Required Mitigation
		On-site	Off-site	Total		
Wetland Habitat						
Southern Willow Scrub (63320)	N/A	--	--	--	--	0
Herbaceous Wetland (52510)	N/A	--	--	--	--	0
Disturbed Wetland (11200)	N/A	--	--	--	--	0
Wetland Subtotal		***0.00***	***0.00***	***0.00***	**--**	***0***
Sensitive Upland Habitat						
Baccharis Scrub (32530)	II	0.5	<0.1	0.5	1:1	0.5
Baccharis Scrub – Disturbed (32530)	II	0.1	0.2	0.3	1:1	0.3
Diegan Coastal Sage Scrub (32500)	II	1.1	--	1.1	1:1	1.1
Diegan Coastal Sage Scrub – Disturbed (32500)	II	0.1	--	0.1	1:1	0.1
Tier II Subtotal		***1.8***	***0.2***	***2.0***	**--**	***2.0***
Chamise Chaparral (37200)	IIIA	0.2	--	0.2	0.5:1	0.1
Non-native Grassland (42200)	IIIB	0.1	<0.1	0.1	0.5:1	0.05
Tier III Subtotal		***0.3***	***<0.1***	***0.3***	**--**	***0.15***
Sensitive Upland Subtotal		***2.1***	***0.2***	***2.3***	**--**	***2.15***

Table 6 (cont.)
VEGETATION COMMUNITIES/LAND COVER TYPE IMPACTS

Vegetation Community/Land Cover Type[1]	MSCP Tier[2]	Impacts[3] (acres)[4]			Mitigation Ratio[5]	Required Mitigation
		On-site	Off-site	Total		
Non-Sensitive Upland Habitat						
Eucalyptus Woodland (79100)	IV	0.1	<0.1	0.1	--	0
Non-native Vegetation (11000)	IV	0.1	<0.1	0.1	--	0
Disturbed Habitat (11300)	IV	2.5	--	2.5	--	0
Developed (12000)	IV	10.3	0.5	10.8	--	0
Non-Sensitive Upland Subtotal		***13.0***	***0.5***	***13.5***	**--**	***0***
TOTAL		**15.1**	**0.7**	**15.8**	**--**	**2.15**

[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[2] Tiers refer to City MSCP Subarea Plan habitat classification system.
[3] Temporary and permanent impacts combined. All impacts occur outside of the MHPA/VPHCP Hardline.
[4] Acreages rounded to the nearest 0.1 acre for uplands and 0.01 acre for wetlands; total reflects rounding.
[5] Mitigation ratios per City Biology Guidelines and all mitigation is inside the MHPA utilizing the HAF.

Project construction would occur immediately adjacent to sensitive riparian and upland habitat and MHPA consisting of the VPHCP Hardline area. Inadvertent intrusion into these adjacent areas by construction vehicles, equipment, and personnel could result in additional impacts. Implementation of mitigation measure **BIO-3**, which require biological monitoring during construction activities and post-project reporting, would ensure that inadvertent impacts to sensitive habitats located immediately adjacent to construction work areas are avoided.

6.3.2 Mitigation Measures

BIO-2 **Habitat Acquisition Fund:** Direct impacts to 0.8 acres of Tier II Baccharis scrub (including disturbed), 1.2 acres of Tier II Diegan coastal sage scrub (including disturbed), 0.2 acres of Tier IIIA chamise chaparral and 0.1 acres of Tier IIIB non-native grassland, all located outside of the MHPA shall be mitigated in accordance with ratios provided in Table 3 of the City's Biology Guidelines, for an anticipated mitigation obligation of 2.6 acres. Mitigation shall consist of payment into the Habitat Acquisition Fund for direct impacts to 2.6 acres of Tier II, Tier IIIA and Tier IIIB habitat..

BIO-3 **Biological Monitoring.** Prior to the issuance of any grading permit, the City Manager (or appointed designee) shall verify that the following project requirements are shown on the construction plans:

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 (2012), 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 (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 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 or mitigation plan in conformance with the City's Biology Guidelines (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City 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 or mitigation plan 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 e-mailed 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.

6.3.3 Conclusion

The proposed project would result in impacts to sensitive Tier II (Baccharis Scrub and Diegan coastal sage scrub), Tier IIIA (chamise chaparral), and Tier IIIB (non-native vegetation) habitats, which would be significant. Implementation of **BIO-2** would reduce these impacts to below a level of significant. To prevent inadvertent impacts to sensitive riparian and uplands adjacent to the project's impact area,

implementation of mitigation measure **BIO-3** would reduce these potential impacts to less than significant.

6.4 JURISDICTIONAL WETLANDS AND WATERWAYS

Would the project have a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?

6.4.1 Impact Analysis

The study area contains waterways, wetlands, and riparian habitat that would be subject to USACE (Figure 13, *Waters of the U.S./Avoidance*), RWQCB (Figure 14, *Waters of the State/Avoidance*), and/or CDFW jurisdiction (Figure 15, *CDFW Jurisdictional Areas/Avoidance*). The project proposes to avoid all impacts to these areas; therefore, no impact would occur to jurisdictional wetlands and waterways and no mitigation is required.

Portions of the project impact footprint occur directly adjacent to wetland and riparian habitat, jurisdictional resource areas, and City ESL wetlands. Implementation of mitigation measure **BIO-3** would ensure that inadvertent impacts to jurisdictional wetlands and waterways, and City ESL wetlands, located immediately adjacent to construction work areas are avoided.

City ESL Wetlands and Wetland Buffers

In accordance with City Biology Guidelines (City 2018a), the project would avoid impacts to City ESL wetlands including vernal pools and associated vernal pool watershed (Figure 16, *City ESL Wetlands/Avoidance*). In addition to impact avoidance of wetland resources, City Biology Guidelines also require a wetland buffer be maintained around all wetlands to protect the functions and values of the wetland. The functions and values of the on-site wetlands are limited based on the proximity of these areas to current development, previous development and disturbance activities within the project site, prevalence of non-native vegetation, and lack of habitat suitable to support special status plant and animal species found within the region.

The small patches of herbaceous wetlands present along the site's northern boundary are located within a shallow gullied area at the bottom of the hillside separating the project site from the SR-52. Runoff from the adjacent slopes and eastern drainage ditch sheet flow towards this gullied area where waters either infiltrate into the soil or slowly flow to the west. Dominant vegetation within these small, fragmented wetland patches consist of low-growing annuals such as mariposa rush, tall flatsedge, sand spikerush, and annual beard grass. No special status plant or animal species were observed in these areas and suitable habitat required by species known to occur within the project vicinity is either not present or too small in size to provide suitable live-in habitat. These areas contain limited wetland functions such as survey water conveyance, absorption of slow-moving waters, and ground water recharge. Wetland buffer widths along the northern boundary of the project adjacent to the herbaceous wetland patches average approximately 20 feet, ranging from approximately 13 feet to 26 feet (Figure 17, *City ESL Wetland Buffers*). The wetland buffer area will be planted with native species and placed within the project's biological open space/preserve and managed in accordance with a site-specific vernal pool management plan to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017). The wetland buffer will reduce physical disturbances to the herbaceous wetlands from adjacent construction activities and future commercial operations of the

development, and provide transitional habitat between the proposed development and herbaceous wetland habitat. Existing topography and hydrology patterns will be maintained.

The man-made drainage ditch in the eastern portion of the project site was constructed as part of the previous Cubic development. Its primary purpose is to collect and convey stormwater runoff from the exiting Cubic property parking lot to undeveloped lands in the northern portion of the site. After review of information collected in the field and from historical imagery and as-built drawings, it is evident that there would not be a surface drainage feature at the location of the present-day drainage ditch had it not been for the existing developments on the property and man-made activities. Pursuant to the City's Biology Guidelines (City 2018a) and ESL regulations, artificially created wetlands in historically non-wetland areas do not qualify City ESL wetlands. Therefore, the drainage ditch does not constitute wetlands defined under the City's Biology Guidelines and ESL. However, the project still proposes to avoid this feature and will provide an appropriate wetland buffer commemorate with the feature's limited functions and values.

Vegetation within the drainage ditch consists of disturbed wetland and streambed habitat dominated by herbaceous non-native and invasive plant species such as annual beard grass, grass poly, stinkwort, and lotus sweetjuice (*Glinus lotoides*). No special status plant or animal species were observed within the drainage ditch and habitat to support species known to occur within the project vicinity is either absent or highly disturbed and degraded. Existing functions and values of the drainage ditch are limited to surface water conveyance of stormwater runoff from developed areas and is not associated with pre-existing or natural drainage patterns. The wetland buffer width along the eastern project boundary averages 17 feet, ranging from 5 to 25 feet (Figure 17). The wetland buffer area will be planted with native species and placed within the project's biological open space/preserve and managed in accordance with a site-specific vernal pool management plan to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017). The wetland buffer will reduce physical disturbances to the drainage ditch from adjacent construction activities and future commercial operations of the development, and provide transitional habitat between the proposed development and development lands further east.

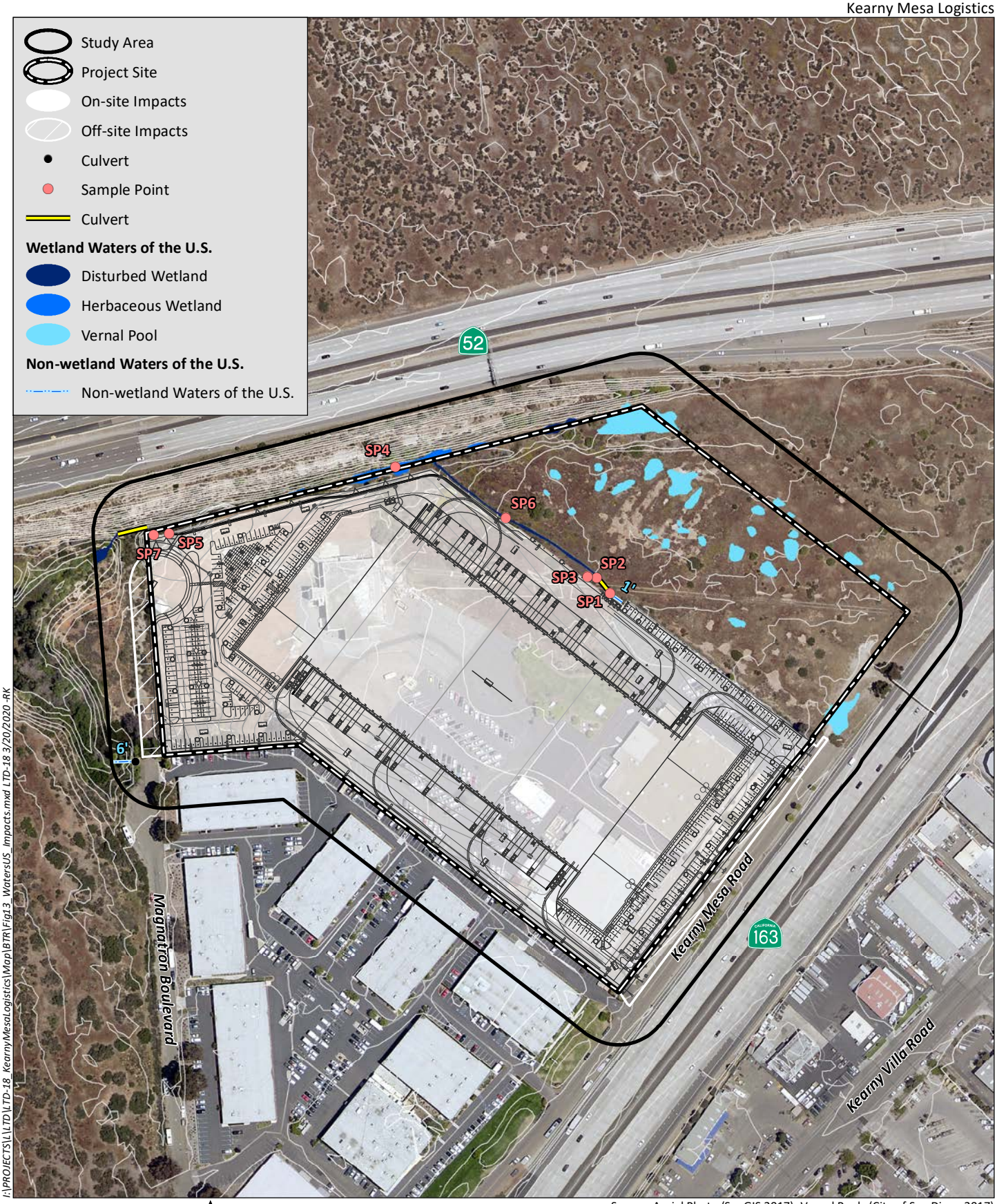
Vernal pool habitat within the eastern portion of the site will be preserved within the VPHCP Hardline area (Figure 18, Preserve) which has been designed to include sufficient watershed and upland buffer area to protect the natural hydrological flows into the associated vernal pools. The VPHCP Hardline area will be preserved and managed in accordance with a site-specific vernal pool management plan (as detailed in Section 6.6) to prepared pursuant to the requirements of the City's VPHCP (City 2020) and VPMMP (City 2017). Therefore, the project maintains and protects the wetland buffers surrounding the project's vernal pool complex and vernal pool watershed.

6.4.2 Mitigation Measures

Implementation of mitigation measure **BIO-3** would ensure that inadvertent impacts to jurisdictional wetlands and waterways, and City ESL wetlands, located immediately adjacent to construction work areas are avoided.

6.4.3 Conclusion

The proposed project would avoid direct impacts to wetlands and waters jurisdictional under the USACE, RWQCB, and CDFW, and City ESL wetlands. However, mitigation measure **BIO-3** would prevent inadvertent impacts to these areas where they occur directly adjacent of the proposed project footprint.



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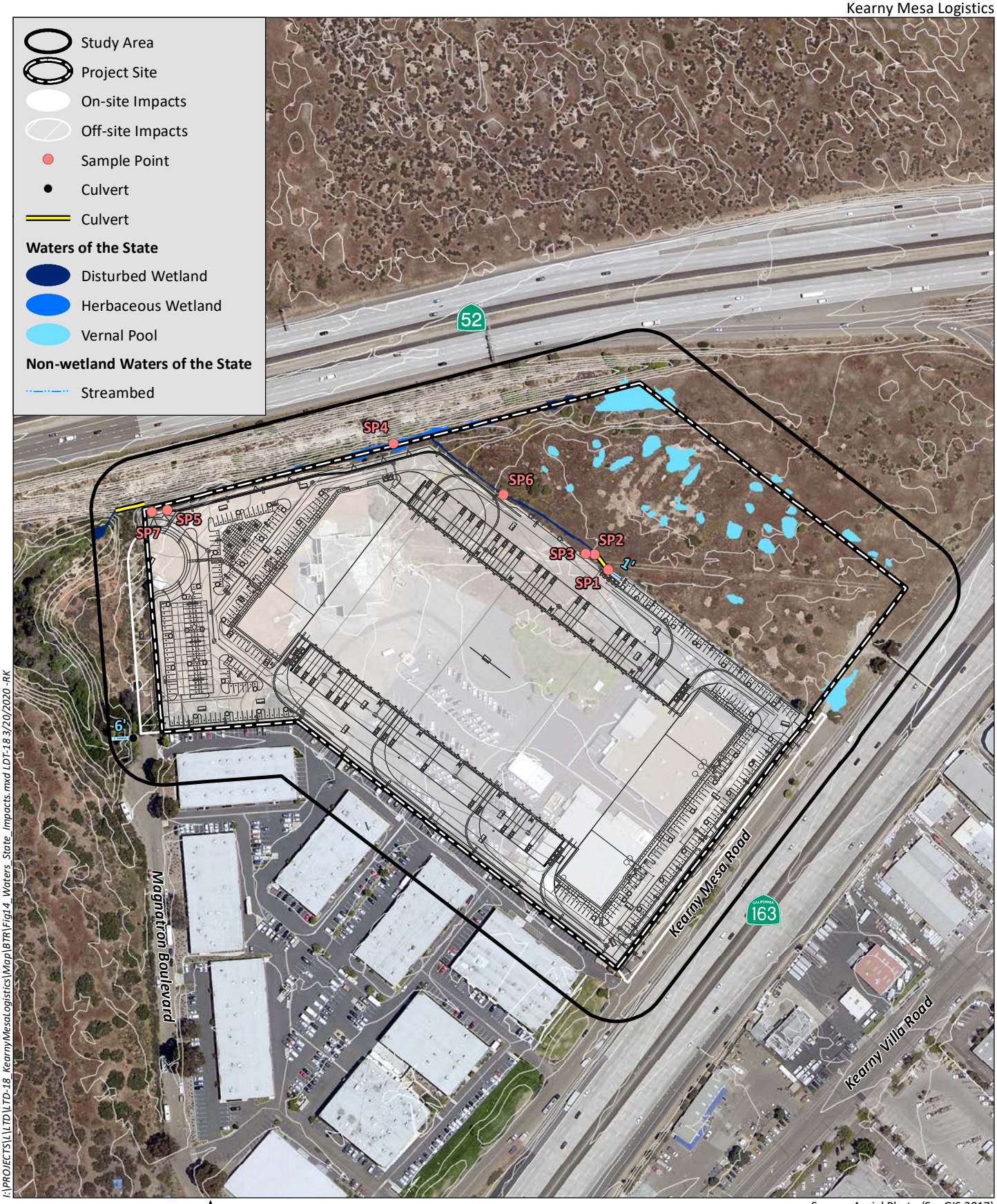
Source: Aerial Photo (SanGIS 2017); Vernal Pools (City of San Diego 2017)

HELIX Environmental Planning

Waters of the U.S./Avoidance

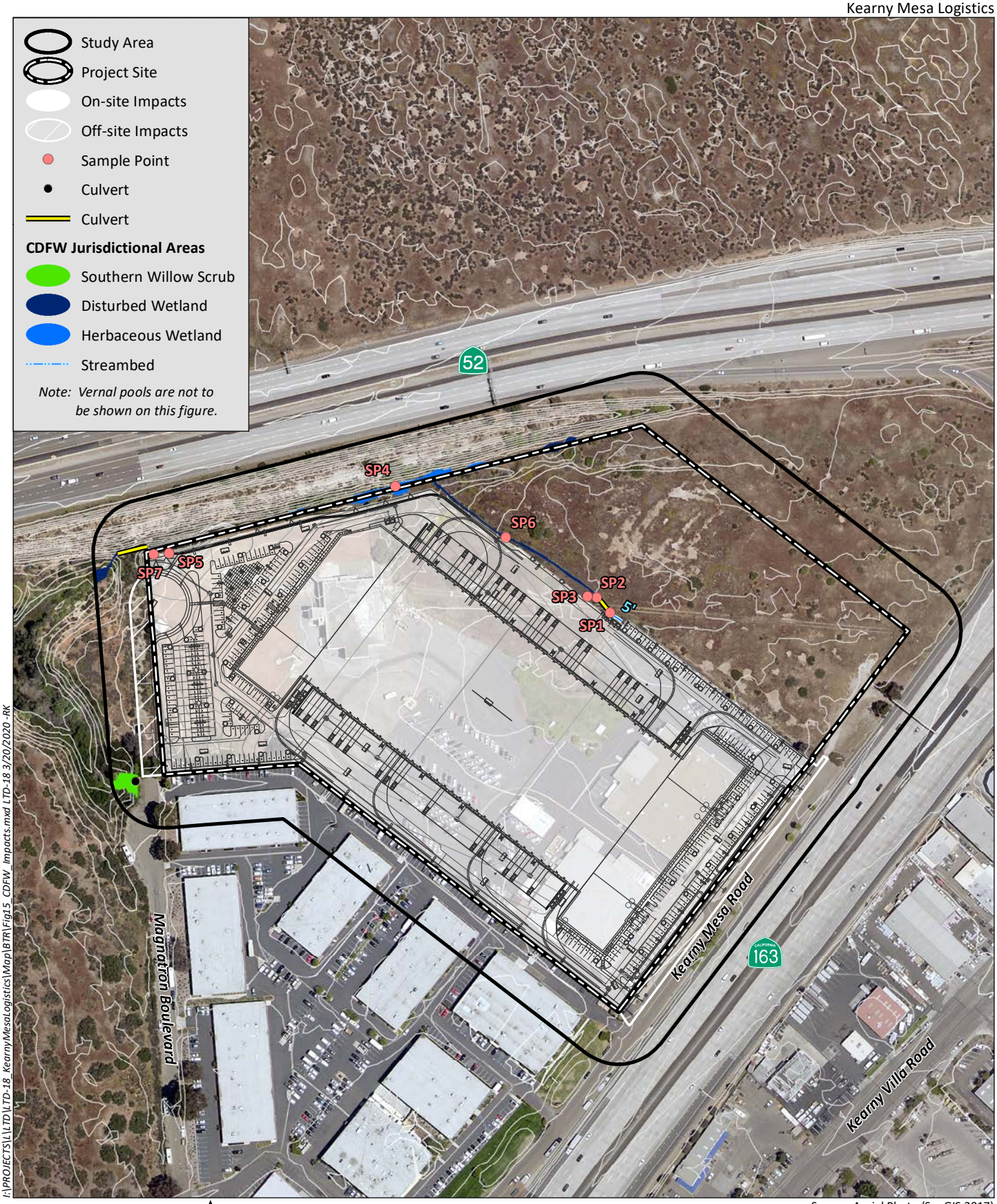
Figure 13



HELIX Environmental Planning

Waters of the State/Avoidance

Figure 14



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Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

CDFW Jurisdictional Areas/Avoidance

Figure 15

Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

City ESL Wetlands/Avoidance

Figure 16

Source: Aerial Photo (SanGIS 2017)

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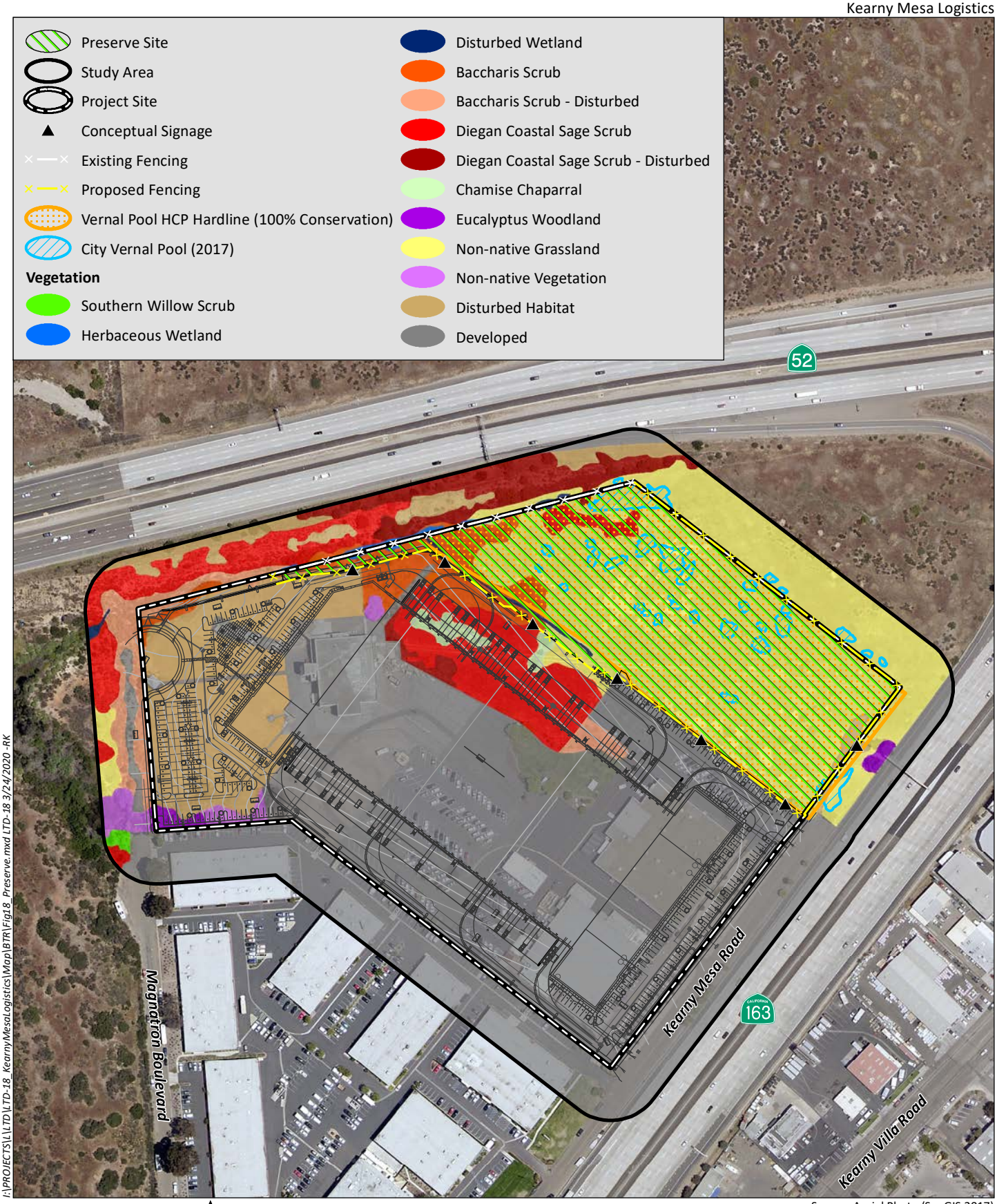
HELIX Environmental Planning

City ESL Wetlands Buffer

Figure 17



Source: Aerial Photo (SanGIS 2017)

HELIX Environmental Planning

Preserve

Figure 18

6.5 WILDLIFE MOVEMENT AND NURSERY SITES

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, VPHCP, or impede the use of native wildlife nursery sites?

6.5.1 Impact Analysis

The project site is surrounded by existing development, and as such, does not by itself function as and does not contribute to any wildlife corridors or linkages, or native wildlife nursery sites. Furthermore, the site is separated from open space areas to the north by SR-52 thereby severing connectivity to larger blocks of contiguous habitat located within MCAS Miramar. The narrow strip of habitat occurs off site to the north and runs parallel with SR-52 and provides a connection between the project site and open space lands west within the Sanders Property occurs outside of areas being considered for project development. The project, therefore, would not impede the movement of any native, resident, or migratory fish or wildlife species; interfere with established native, resident, or migratory wildlife corridors, including linkages identified in the MSCP Plan; and would not impede the use of native wildlife nursery sites.

Impacts would be less than significant.

6.5.2 Mitigation Measures

None required.

6.5.3 Conclusion

Project implementation would not result in significant impacts on wildlife movement and nursery sites. No impact would occur, and mitigation is not required.

6.6 ADOPTED PLANS

Would the project conflict with the provisions of an adopted HCP, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP or VPHCP plan area or in the surrounding region?

6.6.1 Impact Analysis

As stated above, the project would result in potential significant impacts to special-status species, and sensitive vegetation communities, and City ESL areas. Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency with the adopted City MSCP Subarea Plan (City 1997), VPHCP (City 2020), and Land Development Manual Biology Guidelines (City 2018a).

The City's VPHCP includes avoidance and minimization designed to minimize impacts to conserved vernal pools adjacent to development. These measures provide requirements for land uses adjacent to the habitat preserve (VPHCP Hardline and MHPA) in order to minimize indirect impacts to the VPHCP covered species contained therein. The project's compliance with these measures is detailed in Section 5.3.3. Implementation of mitigation measure **BIO-3**, which includes biological monitoring during

construction activities adjacent to the VPHCP Hardline area, will ensure the project's compliance with the VPHCP Avoidance and Minimization Measures.

No other adopted HCP, RMP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the project.

6.6.2 Mitigation Measures

Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency with the City's MSCP Subarea Plan, and Land Development Manual Biology Guidelines. Implementation of **BIO-3** would ensure project consistency with the VPHCP.

6.6.3 Conclusion

The project would result in potential significant impacts to special-status species and sensitive natural communities; however, a combination of avoidance through project design and mitigation measures to fully compensate the loss of habitat would reduce impacts to below a level of significance. With the implementation of mitigation measures **BIO-1** through **BIO-3**, the project would be consistent with the adopted City MSCP Subarea Plan and City's Land Development Manual Biology Guidelines. With the implementation of **BIO-3**, the project would be consistent with the adopted City VPHCP.

6.7 LAND USE ADJACENCY

Would the project introduce land use within an area adjacent to the MHPA that would result in adverse edge effects?

6.7.1 Impact Analysis

The City's MSCP Subarea Plan addresses the impacts to preserve areas from adjacent development in Section 1.4.3, Land Use Adjacency Guidelines (LUAGs). The LUAGs provide requirements for land uses adjacent to the habitat preserve in order to minimize indirect impacts to the sensitive resources contained therein. The project involves the redevelopment of an existing Cubic property which occurs adjacency to the VPHCP Hardline and represents expansion of the City's MHPA. As detailed in Section 5.3.2, the proposed project would conform the LUAGs. Implementation of mitigation measures **BIO-1** would reduce potential noise impacts to breeding coastal California gnatcatcher to a less than significant level, and implementation of mitigation measure **BIO-3** would ensure inadvertent impacts to the MHPA/VPHCP Hardline area located adjacent to construction work areas are avoided.

6.7.2 Mitigation Measures

Mitigation measure **BIO-1** would reduce potential noise-related impacts to coastal California gnatcatcher potentially present within the MHPA/VPHCP Hardline area during the breeding season to a less than significant level. Implementation of mitigation measure **BIO-3** would ensure that inadvertent impacts to the MHPA/VPHCP Hardline area adjacent to construction work areas are avoided.

6.7.3 Conclusion

Project implementation would not result in significant impacts related to MHPA adjacency and would conform with the LUAGs. Implementation of mitigation measures **BIO-1** and **BIO-3** would reduce

potential indirect impacts related to noise generated during construction and unauthorized construction impacts outside the limits of work to less than significant.

6.8 LOCAL POLICIES OR ORDINANCES

Would the project conflict with any local policies or ordinances protecting biological resources?

6.8.1 Impact Analysis

The project is consistent with the City's Land Development Code Biology Guidelines; no conflict with local policies or ordinances protecting biological resources would occur. Mitigation measure **BIO-1** through **BIO-3** would ensure project consistency with the MSCP and VPHCP, and that impacts to special status species and ESL are avoided or mitigated in accordance with Land Development Code requirements.

6.8.2 Mitigation Measures

Implementation of mitigation measures **BIO-1** through **BIO-3** would ensure project consistency with the MSCP, VPHCP, and Land Development Code pertaining to biological resources.

6.8.3 Conclusion

The project could result in significant impacts to special status species and ESL addressed in the City's MSCP Subarea Plan and Land Development Code. Implementation of mitigation measures **BIO-1** through **BIO-3** would reduce impacts to less than significant.

6.9 INVASIVE SPECIES

Would the project result in an introduction of invasive species of plants into a natural open space area?

6.9.1 Impact Analysis

The project would not result in the introduction of invasive species of plants into a natural open space area. The project area is surrounded by urban development and non-native plant species are prevalent on adjacent lands. Furthermore, landscaping associated with the project does not include plant species identified as invasive by the California Invasive Plant Council (2019). Landscaping and plantings proposed adjacent to the VPHCP Hardline and wetland buffer areas incorporated into the project's biological open space/preserve (Figure 18) will consists of native species.

6.9.2 Mitigation Measures

No mitigation required.

6.9.3 Conclusion

The project would not result in the introduced of invasive plant species to natural open space areas. No impact would occur.

6.10 CUMULATIVE IMPACTS

Adverse cumulative impacts are not expected from implementation of the proposed project. Projects which adhere to the City's MSCP Subarea Plan are not expected to have significant cumulative impacts to resources regulated and covered by these plans. The project would comply with the City's MSCP Subarea Plan, the MHPA LUAG requirements, VPHCP, and the City of San Diego Biology Guidelines and ESL Regulations. Therefore, the project would not result in significant cumulative impacts and no mitigation required.

7.0 LIST OF PREPARERS

The following individuals contributed to the fieldwork and/or preparation of this report.

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Appendix A

Jurisdictional Delineation Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 1

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

Landform (hillslope, terrace, etc.): drainage ditch Local relief (concave, convex, none): none Slope (%): 3%

Subregion (LRR): C: Mediterranean California Lat: 32.839208 Long: -117.137797 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 2 to 9 percent slopes 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:

SP located between parking lot and culvert.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10'x30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10'x30')			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 10'x10')			
1. Festuca perennis	50	yes	FAC
2. Pennisetum setaceum	10	no	UPL
3. Bromus hordeaceus	3	no	FACU
4. Polypogon monspeliensis	2	no	FACW
5. Sonchus asper	2	no	FAC
6. Anagallis arvensis	1	no	FAC
7. Croton setiger	1	no	UPL
8. Euphorbia maculata	1	no	UPL
	70	= Total Cover	
Woody Vine Stratum (Plot size: 10'x20')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10% % Cover of Biotic Crust 10%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

Biotic crust exists in a small depression just upstream of culvert. No vascular plants are present in depression.

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 %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100%					C	
4-10	5YR 3/3	100%					C	

[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: hardpan

Depth (inches): 10"

Hydric Soil Present? Yes ____ No ✓

Remarks:

No hydric soil indicators.

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:

Watermarks are present on headwall of culvert.
FAC-neutral test--W:U=0:0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 2

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

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

Subregion (LRR): C: Mediterranean California Lat: 32.839288 Long: -117.138004 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 2 to 9 percent slopes 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:

SP located downstream of culvert.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 6'x30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 6'x20')			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 6'x10')			
1. Juncus dubius	20	yes	FACW
2. Polypogon monspeliensis	8	no	FACW
3. Rumex crispus	6	no	FACW
4. Lythrum hyssopifolia	2	no	OBL
5. Bromus hordeaceus	2	no	FACU
6. Dittrichia graveolens	1	no	UPL
7. Anagalus avensis	1	no	FAC
8. Croton setiger	1	no	UPL
	41	= Total Cover	
Woody Vine Stratum (Plot size: 6'x15')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 60%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

Disturbed wetland

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
0-5	10YR 2/1	90%	5YR 4/6	10%	C	M	C	
5-12	5YR 3/1	80%	2.5YR 3/6	20%	C	M	C	

[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): _____

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:

FAC-neutral test--W:U=1:0

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 3

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2-3%

Subregion (LRR): C: Mediterranean California Lat: 32.839292 Long: -117.137935 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 2 to 9 percent slopes 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:

SP located on terrace adjacent to drainage ditch.

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. Baccharis sarothroides	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: r=5')			
1. Erodium moschatum	25	yes	UPL
2. Festuca perennis	20	yes	FAC
3. Acmispon glaber	15	no	UPL
4. Aveba barbata	10	no	UPL
5. Bromus madritensis	5	no	UPL
6. Holocarpha virgata	2	no	UPL
7. Pennisetum setaceum	2	no	UPL
8. Croton setiger	2	no	UPL
	81	= Total Cover	
Woody Vine Stratum (Plot size: r=10')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	40	x 4 =	40
UPL species	61	x 5 =	305
Column Totals:	91 (A)		405 (B)

Prevalence Index = B/A = 4.5

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:

Silene gallica and Deinandra fasciculata are also present at 1% in herb plot.
Upland vegetation

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
0-4	5YR 3/4	100%					C	
4-12	2.5YR 3/4	100%					C	

[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.

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:

FAC-neutral test--W:U=0:2

No wetland hydrology indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 4

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

Landform (hillslope, terrace, etc.): drainage ditch Local relief (concave, convex, none): none Slope (%): 3%

Subregion (LRR): C: Mediterranean California Lat: 32.839855 Long: -117.139122 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 2 to 9 percent 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:

SP located in drainage along northern edge of study area.
NWI: Freshwater forested/scrub wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15'x30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15x20')			
1. Baccharis sarothroides	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 10'x10')			
1. Eleocharis montevidensis	60	yes	FACW
2. Polypogon monspeliensis	10	no	FACW
3. Dittrichia gravelolens	5	no	UPL
4. Cyperus eragrostis	2	no	FACW
5. Juncus dubius	2	no	FACW
6. Rumex crispus	1	no	FACW
7. Bromus hordeaceus	1	no	FACU
8.			
	81	= Total Cover	
Woody Vine Stratum (Plot size: 15'x15')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 19%

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	0	x 1 =	0
FACW species	75	x 2 =	150
FAC species	0	x 3 =	0
FACU species	1	x 4 =	44
UPL species	5	x 5 =	25
Column Totals:	91 (A)		219 (B)

Prevalence Index = B/A = 2.4

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:

Herbaceous wetland

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)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	5YR 3/1	98%	5YR 3/4	2%	C	M	C	
5-12	7.5YR 3/1	95%	2.5YR 3/6	5%	C	M	C	

[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): _____

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:

FAC-neutral test--W:U=1:1

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 5

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 3%

Subregion (LRR): C: Mediterranean California Lat: 32.839498 Long: -117.140506 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 9 to 30 percent slopes 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:

SP located on terrace adjacent to drainage ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 40'x20')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20'x20')			
1. Baccharis sarothroides	40	yes	FACU
2. Baccharis salicifolia	20	yes	FACW
3.			
4.			
5.			
	60	= Total Cover	
Herb Stratum (Plot size: 10'x10')			
1. Polypogon monspeliensis	50	yes	FACW
2. Cyperus eragrostis	2	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	52	= Total Cover	
Woody Vine Stratum (Plot size: 15'x15')			
1. Lonicera subspicata	3	no	UPL
2.			
	3	= Total Cover	

% Bare Ground in Herb Stratum 25% % 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:

Mule fat scrub

SOIL

Sampling Point: 5

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
0-4	7.5YR 4/3	100%					SaL	
4-15	7.5YR 2/3	90	7.5YR 4/6	10	C	M	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:

No hydric soil indicators. Matrix chroma is too high in second layer to meet F6 or F7 hydric soil indicator parameters.

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:

FAC-neutral test--W:U=2:1

Insufficient wetland hydrology indicators

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 27 Aug 2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 6

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

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

Subregion (LRR): C: Mediterranean California Lat: 32.839592 Long: -117.138442 Datum: NAD83

Soil Map Unit Name: Redding cobbly loam, 9 to 30 percent slopes 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:

SP is located in drainage ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 5'x40')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5'x30')			
1. Baccharis sarothroides	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 5'x10')			
1. Polypogon monspeliensis	70	yes	FACW
2. Dittrichia graveolens	15	no	UPL
3. Bromus hordeaceus	4	no	FACU
4. Rumex crispus	3	no	FACW
5. Silene gallica	2	no	UPL
6. Croton setiger	1	no	UPL
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 5

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	0	x 1 =	0
FACW species	73	x 2 =	146
FAC species	0	x 3 =	0
FACU species	14	x 4 =	56
UPL species	18	x 5 =	90
Column Totals:	105 (A)		292 (B)

Prevalence Index = B/A = 2.8

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:

Disturbed wetland

SOIL

Sampling Point: 6

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
0-5	7.5YR 3/2	80	5YR 3/4	20	C	M	SiC	
5-133	7.5YR 4/2	96	5YR 3/4	4	C	M	C	

[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): _____

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:

FAC-neutral Test--W:U=1:1

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Kearny Mesa Logistics City/County: San Diego/San Diego Sampling Date: 25 Sept.2019

Applicant/Owner: LTD-18 State: CA Sampling Point: 7

Investigator(s): W.L. Sward & E. Harris Section, Township, Range: unsectioned, T 15 S, R 3 W

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2-3%

Subregion (LRR): C: Mediterranean California Lat: 32.83950 Long: -117.14061 Datum: NAD83

Soil Map Unit Name: Redding gravelly loam, 9 to 30 percent slopes 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:

SP located on terrace adjacent to drainage ditch. Drainage ditch is located off site to the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30'x30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 20'x20')			
1. Baccharis sarothroides	10	yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 10'x10')			
1. Polypogon monspeliensis	30	yes	FACW
2. Dittrichia graveolens	40	yes	UPL
3. Carduus pychnocephela	2	no	UPL
4.			
5.			
6.			
7.			
8.			
	72	= Total Cover	
Woody Vine Stratum (Plot size: 15'x15')			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 10% % 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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 30	x 2 =	60
FAC species	x 3 =	
FACU species 10	x 4 =	40
UPL species 42	x 5 =	210
Column Totals: 82 (A)		310 (B)

Prevalence Index = B/A = 3.8

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:

Mule fat scrub

SOIL

Sampling Point: 7

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
0-10	7.5YR 2.5/2	70%					SaCL	
0-10	7.5YR 6/4	30%					Sa	
10-19	7.5YR 3/2	85%	7.5YR 4/6	15%	C	M	C	

[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. Second layer meets value, chroma, and redox for F6 but layer is too deep to meet hydric soil indicator parameters

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:

FAC-neutral test--W:U=1:2

No wetland hydrology indicators

Appendix B

Representative Site Photographs

Photo 1. Overview of existing Cubic property from northwest facing southeast.

Photo 2. Overview of MHPA/VPHCP Hardline Area facing northeast.

Photo 3. Man-made drainage ditch in eastern portion of site. Upstream end facing southwest (upstream) towards existing parking lot.

Photo 4. Man-made drainage ditch in eastern portion of site. Upstream end facing northwest (downstream).

Photo 5. Herbaceous wetland patch located along northern project boundary within shallow "gullied" area at the bottom of the slope separating the project site and SR-52, facing east.

Photo 6. Diegan coastal sage scrub present to the east of the existing development facing west.

Photo 7. Bacharris scrub present in the northern portion of the project site facing west.

Photo 8. Overview of proposed off-site extension of Magnatron Boulevard, facing south.

Sampling Point 1. Non-native grassland present located at the upstream portion of the man-made drainage ditch. Non-wetland waters of the U.S./ State and CDFW-jursidictional streambed.

Sampling Point 2. Disturbed wetland present within the upstream portion of the man-made drainage ditch. Wetland waters of the U.S./ State and CDFW-jurisidictional wetland habitat.

Sampling Point 3. Diegan coastal sage scrub habitat located west of man-made drainage ditch. Non-jurisidictional.

Sampling Point 4. Herbaceous wetland habitat present along the northern project boundary. Wetland waters of the U.S./State and CDFW-jurisidictional wetland habitat.

Sampling Point 5. Disturbed Baccharis scrub present in the northwestern corner of the project site. Non-jursidictional.

Sampling Point 6. Disturbed wetland present within the central portion of the man-made drainage ditch. Wetland waters of the U.S./State and CDFW-jurisidictional wetland habitat.

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Appendix C

Wetlands and "Waters of the U.S." Definitions

Appendix C
Federal Jurisdictional Information

WETLANDS AND "WATERS OF THE U.S." DEFINITIONS

WETLANDS

The U.S. Army Corps of Engineers (USACE; 33 CFR 328.3) and the Environmental Protection Agency (EPA; 40 CFR 230.3) jointly define wetlands as "[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987).

WATERS OF THE U.S.

The official definition of "Waters of the U.S." and their limits of jurisdiction (as they may apply) are defined by the USACE' Regulatory Program Regulations (33 CFR 328.3, paragraphs [a] 1-3 and [e], and Section 328.4, paragraphs [c] 1 and 2) as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters,

    i. which are or could be used by interstate or foreign travelers for recreation or other purposes; or

    ii. from which fish or shellfish are or could be taken and sold in interstate commerce; or

    iii. which are used or could be used for industrial purpose by industries in interstate commerce;

4. All impoundments of waters otherwise defined as waters of the United States under the definition;

5. Tributaries of waters;

6. The territorial seas;

7. Wetlands adjacent to waters (other than waters that are themselves wetlands)…

Appendix C (cont.)
Federal Jurisdictional Information

NON-TIDAL WATERS OF THE U.S.

The limits of jurisdiction in non-tidal waters: In the absence of adjacent wetlands, the jurisdiction extends to the OHWM, or when adjacent wetlands are present, the jurisdiction extends to the limit of the adjacent wetlands.

The term OHWM refers to that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation (scouring), the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Waters of the U.S. must exhibit an OHWM or other evidence of surface flow created by hydrologic physical changes. These physical changes include (Riley 2005):

- Natural line impressed on the bank
- Shelving
- Changes in the character of soil
- Destruction of terrestrial vegetation
- Presence of litter and debris
- Wracking
- Vegetation matted down, bent, or absent
- Sediment sorting
- Leaf litter disturbed or washed away
- Scour
- Deposition
- Multiple observed flow events
- Bed and banks
- Water staining
- Change in plant community

Further guidance on identifying the OHWM in the Arid Southwest (Lichvar and McColley 2008). This publication provided geomorphic and vegetation OHWM indicators specific to the Arid Southwest.

Jurisdictional areas also must be connected to Waters of the U.S. (Guzy and Anderson 2001; U.S. Supreme Court 2001).

As a consequence of the U.S. Supreme Court decision in Rapanos v. United States, a memorandum was developed regarding Clean Water Act jurisdiction (Grumbles and Woodley 2007). The memorandum states that the EPA and the USACE will assert jurisdiction over traditional navigable waters (TNW), wetlands adjacent to TNW, tributaries to TNWs that are a relatively permanent water body (RPW), and wetlands adjacent to TNW. An RPW has year-round flow or a continuous seasonal flow (i.e., typically for three months or longer). Jurisdiction over other waters (i.e., non TNW and RPW) will be based on a fact-specific analysis to determine if they have a significant nexus to a TNW.

Pursuant to the USACE Instructional Guidebook (USACE and EPA 2007), the significant nexus evaluation will cover the subject reach of the stream (upstream and downstream) as well as its adjacent wetlands (Illustrations 2 through 6, USACE and EPA 2007). The evaluation will include the flow characteristics,

annual precipitation, ability to provide habitat for aquatic species, ability to retain floodwaters and filter pollutants, and proximity of the subject reach to a TNW, drainage area, and the watershed.

WETLAND CRITERIA

Wetland boundaries are determined using three mandatory criteria (hydrophytic vegetation, wetland hydrology, and hydric soil) established for wetland delineations and described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008). Following is a brief discussion of the three criteria and how they are evaluated.

Vegetation

"Hydrophytic vegetation is defined herein as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (Environmental Laboratory 1987).

The wetland indicator status (obligate upland, facultative upland, facultative, facultative wetland, obligate wetland, or no indicator status) of the dominant plant species of all vegetative layers is determined. Species considered to be hydrophytic include the classifications of facultative, facultative wetland, and obligate wetland as defined in the current list of wetland plants of the Arid Southwest (Lichvar, et al. 2016; Table A-1). The percent of dominant wetland plant species is calculated. The hydrophytic vegetation criterion is considered to be met if it meets the "Dominance Test," "Prevalence Index," or the vegetation has morphological adaptations for prolonged inundation.

Table A-1
DEFINITIONS OF PLANT INDICATOR CATEGORIES

Indicator Categories	Abbreviation	Qualitative Description
Obligate	OBL	Almost always occur in wetlands
Facultative Wetland	FACW	Usually occur in wetlands but may occur in non-wetlands
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands but may occur in wetlands
Upland	UPL	Almost never occur in wetlands

Hydrology

"The term 'wetland hydrology' encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic reducing conditions, respectively" (Environmental Laboratory 1987).

Appendix C (cont.)
Federal Jurisdictional Information

Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year (approximately 18 days for most of low-lying southern California). Hydrology criteria are evaluated based on the characteristics listed below (USACE 2008). Where positive indicators of wetland hydrology are present, the limit of the OHWM (or the limit of adjacent wetlands) is noted and mapped. Evidence of wetland hydrology is met by the presence of a single primary indicator or two secondary indicators.

Primary

- surface water (A1)
- high water table (A2)
- saturation (A3)
- water marks (B1; non-riverine)
- sediment deposits (B2; non-riverine)
- drift deposits (B3; non-riverine
- 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)

Secondary

- watermarks (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)

In the absence of all other hydrologic indicators and in the absence of significant modifications of an area's hydrologic function, positive hydric soil characteristics are assumed to indicate positive wetland hydrology. This assumption applies unless the site visit was done during the wet season of a normal or wetter-than-normal year. Under those circumstances, wetland hydrology would not be present.

Soils

The USACE and EPA, in their administration of Section 404 of the Clean Water Act, rely on the National Technical Committee for Hydric Soils (NTCHS) for a definition of hydric soils. According to the NTCHS, "A

Appendix C (cont.)
Federal Jurisdictional Information

hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." (Federal Register 1994)

Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation. Soil matrix and mottle colors are identified at each sampling plot using a Munsell soil color chart (Kollmorgen 1994). Generally, an 18-inch or deeper pit is excavated with a shovel at each sampling plot unless refusal occurs above 18 inches.

Soils in each area are closely examined for hydric soil indicators, including the characteristics listed below. Hydric soil indicators are presented in three groups. Indicators for "All Soils" (A) are used in any soil regardless of texture, indicators for "Sandy Soils" (S) area used in soil layers with USDA textures of loamy fine sand or coarser, and indicators for "Loamy and Clayey Soils" (F) are used with soil layers of loamy very fine sand and finer (USACE 2008 and Vasilias et al. 2017).

- histosols (A1)
- histic epipedons (A2)
- black histic (A3)
- hydrogen sulfide (A4)
- stratified layers (A5)
- 1 cm muck (A9)
- 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)
- 2 cm muck (A10)
- reduced vertic (F18)
- red parent material (TF2)

Hydric soils may be assumed to be present in plant communities that have complete dominance of obligate or facultative wetland species. In some cases, there is only inundation during the growing season and determination must be made by direct observation during that season, recorded hydrologic data, testimony of reliable persons, and/or indication on aerial photographs.

NON-WETLAND WATERS OF THE U.S.

The non-wetland Waters of the U.S. designation is met when an area has periodic surface flows but lacks sufficient indicators to meet the hydrophytic vegetation and/or hydric soils criteria. For purposes of delineation and jurisdictional designation, the non-wetland Waters of the U.S. boundary in non-tidal areas is the OHWM as described in the Section 404 regulations (33 CFR Part 328).

Appendix C (cont.)
Federal Jurisdictional Information

U.S. Geological Survey Mapping

The U.S. Geological Survey (USGS) quad maps are one of the resources used to aid in the identification and mapping of jurisdictional areas. Their primary uses include understanding the subregional landscape position of a site, major topographical features, and a project's position in the watershed.

In our experience, the designation of watercourse as a blue-line stream (intermittent or perennial) on USGS maps has been unreliable and typically overstates the hydrology of most streams. This has also been the experience of others, including the late Dr. Luna Leopold. Dr. Leopold was a hydrologist with USGS from 1952 to 1972, professor in the Department of Geology and Geophysics and Department of Landscape Architecture, University of California, Berkeley from 1972 to 1986, and Professor Emeritus from 1987 until his death in 2006. In regard to USGS maps, Dr. Leopold wrote, "I tried to devise a way of defining hydrologic criteria for the channels shown on topographic maps and developed some promising procedures. None were acceptable to the topographers, however. I learned that the blue lines on a map are drawn by non-professional, low-salaried personnel. In actual fact, they are drawn to fit a rather personalized aesthetic" (Leopold 1994).

Appendix C (cont.)
Federal Jurisdictional Information

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Appendix D

California Fish and Wetland Regulations

Appendix D
State Jurisdictional Information

CALIFORNIA FISH AND WILDLIFE REGULATIONS

The California Department of Fish and Wildlife (CDFW) regulates alterations or impacts to streambeds or lakes (wetlands) under Fish and Game Code Sections 1600 through 1616 for any private, state, or local government or public utility-initiated projects. The Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that will do one or more of the following: (1) substantially obstruct or divert the natural flow of a river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake. Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, and streams as well as lakes in the state.

In order to notify the CDFW, a person, state, or local governmental agency or public utility must submit a complete notification package and fee to the CDFW regional office that serves the county where the activity will take place (CDFW 2016). A fee schedule is included in the notification package materials. Under the Permit Streamlining Act (Government Code Sections 65920 et seq.), the CDFW has 30 days to determine whether the package is complete. If the requestor is not notified within 30 days, the application is automatically deemed to be complete.

Once the notification package is deemed to be complete, the CDFW will determine whether the applicant will need a Lake or Streambed Alteration Agreement (SAA) for the activity, which will be required if the activity could substantially adversely affect an existing fish and wildlife resource. If an SAA is required, the CDFW will conduct an on-site inspection, if necessary, and submit a draft SAA that will include measures to protect fish and wildlife resources while conducting the project. If the applicant is applying for a regular SAA (less than five years), the CDFW will submit a draft SAA within 60 calendar days after notification is deemed complete. The 60-day time period does not apply to notifications for long-term SAAs (greater than five years).

After the applicant receives the SAA, the applicant has 30 calendar days to notify the CDFW whether the measures in the draft SAA are acceptable. If the applicant agrees with the measures included in the draft SAA, the applicant will need to sign the SAA and submit it to the CDFW. If the applicant disagrees with any measures in the draft SAA, the applicant must notify the CDFW in writing and specify the measures that are not acceptable. Upon written request, the CDFW will meet with the applicant within 14 calendar days of receiving the request to resolve the disagreement. If the applicant fails to respond in writing within 90 calendar days of receiving the draft SAA, the CDFW may withdraw that SAA. The time periods described above may be extended at any time by mutual agreement.

After the CDFW receives the signed draft SAA, the CDFW will make it final by signing the SAA; however, the CDFW will not sign the SAA until it both receives the notification fee and ensures that the SAA complies with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.). After the applicant receives the final agreement, the applicant may begin the project, provided that the applicant has obtained any other necessary federal, state, and/or local authorizations.

Appendix D (cont.)
State Jurisdictional Information

WATER RESOURCE CONTROL BOARD REGULATIONS

SECTION 401 WATER QUALITY CERTIFICATION

Whenever a project requires a federal Clean Water Act (CWA) Section 404 permit or a Rivers and Harbors Act Section 10 permit, it must first obtain a CWA Section 401 Water Quality Certification. The Regional Water Quality Control Board (RWQCB) administers the 401 Certification program. Federal CWA Section 401 requires that every applicant for a Section 404 permit must request a Water Quality Certification that the proposed activity will not violate state and federal water quality standards.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The State Water Resource Control Board (SWRCB) and the RWQCB regulate the discharge of waste to waters of the State via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne) as described in the California Water Code (SWRCB 2017). The California Water Code is the State's version of the federal CWA. Waste, according to the California Water Code, includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal. State waters that are not federal waters may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in discharge of waste into waters of the State. The RWQCB will issue Waste Discharge Requirements (WDRs) or a waiver. The WDRs are the Porter-Cologne version of a CWA 401 Water Quality Certification.

Appendix D (cont.)
State Jurisdictional Information

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Appendix E

Plant Species Observed

Appendix E
Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Agavaceae	*Chlorogalum parviflorum*	small-flower soap-plant	NNG
Aizoaceae	*Carpobrotus chilensis**	sea-fig	DCSS, NNG
	*Carpobrotus edulis**	hottentot-fig	NNG
Anacardiaceae	*Malosma laurina*	laurel sumac	BS, DCSS, NNG
Arecaceae	*Washingtonia robusta**	Mexican fan palm	BS, DH, SWS
Asteraceae	*Artemisia californica*	California sagebrush	DCSS
	Baccharis salicifolia	mule fat	BS
	Baccharis sarothroides	broom baccharis	BS, DCSS, NNG
	*Centaurea melitensis**	tocalote	NNG
	*Cirsium vulgare**	bull thistle	NNG
	Deinandra fasciculata	fascicled tarplant	NNG
	*Dittrichia graveolens**	stinkwort	DCSS, DW
	Erigeron canadensis	horseweed	NNG, DH
	Eriophyllum confertiflorum	golden-yarrow	DCSS
	*Hedypnois cretica**	Crete hedypnois	NNG
	*Helminthotheca echioides**	bristly ox-tongue	NNG
	Holocarpha virgata ssp. *elongata*†	graceful tarplant	DCSS, NNG
	*Hypochaeris glabra**	smooth catsear	NNG, DH
	Isocoma menziesii	goldenbush	DCSS
	*Lactuca serriola**	wild lettuce	NNG
	Pseudognaphalium beneolens	fragrant everlasting	NNG
	Pseudognaphalium californicum	California everlasting	NNG
	Pseudognaphalium canescens	everlasting	NNG
	*Sonchus asper**	spiny sowthistle	DW, NNG
	*Sonchus oleraceus**	common sow thistle	NNG
	Stephanomeria virgata	virgate wreath-plant	NNG
	Stylocline sp.	nest straw	DCSS
Boraginaceae	*Cryptantha* sp.	cryptantha	NNG
	Plagiobothrys sp.	popcorn flower	NNG
Brassicaceae	*Brassica nigra**	black mustard	NNG
	*Hirschfeldia incana**	short-pod mustard	DCSS, NNG
	Lepidium lasiocarpum	sand peppergrass	NNG
Caprifoliaceae	*Lonicera subspicata*	San Diego honeysuckle	DCSS
Caryophyllaceae	*Silene gallica**	common catchfly	NNG
Chenopodiaceae	*Amaranthus albus**	white tumbleweed	NNG
	Amaranthus blitoides	procumbent pigweed	NNG
	*Atriplex semibaccata**	Australian saltbush	NNG
	*Salsola tragus**	Russian thistle	NNG
Cistaceae	*Helianthemum scoparium*	peak rush-rose	DCSS
Cucurbitaceae	*Marah macrocarpa*	wild cucumber	CC

Appendix E (cont.)
Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Cyperaceae	*Cyperus eragrostis*	tall flatsedge	DW
	Eleocharis macrostachya	pale spike-rush	HW
Ericaceae	*Xylococcus bicolor*	mission manzanita	DCSS
Euphorbiaceae	*Croton setigerus*	dove weed	NNG
	Euphorbia albomarginata	rattlesnake sandmat	NNG, DH
	*Euphorbia maculata**	spotted spurge	NNG
Fabaceae	*Acacia pycnantha**	golden wattle	DH
	Acmispon americanus	Spanish-clover	NNG
	Acmispon glaber	deerweed	NNG
Fagaceae	*Quercus dumosa*†	Nuttall's scrub oak	NNG, CHAP
Gentianaceae	*Zeltnera venusta*	canchalagua	NNG
Geraniaceae	*Erodium botrys**	long-beak filaree	NNG
	*Erodium cicutarium**	redstem filaree	NNG
	*Erodium moschatum**	green-stem filaree	NNG
	*Geranium dissectum**	cutleaf geranium	DH
Iridaceae	*Sisyrinchium bellum*	blue-eyed grass	NNG
Juncaceae	*Juncus dubius*	mariposa rush	HW
	Juncus mexicanus	Mexican rush	HW
Lamiaceae	*Salvia mellifera*	black sage	DCSS
Liliaceae	*Calochortus* sp.	mariposa lily	NNG
Lythraceae	*Lythrum hyssopifolia**	grass poly	DW, NNG
Molluginaceae	*Glinus lotoides**	Lotus sweetjuice	DW
Montiaceae	*Calandrinia* sp.	red maids	NNG
	Cistanthe sp.	cistanthe	NNG
Myrsinaceae	*Lysimachia arvensis**	scarlet pimpernel	NNG
Myrtaceae	*Eucalyptus* sp.*	eucalyptus	EW, DH
Nyctaginaceae	*Bougainvillea* sp.*	bougainvillea	NNV
Oleaceae	*Olea europaea**	olive	CSS
Oxalidaceae	*Oxalis pes-caprae**	Bermuda buttercup	NNG, DH
Phrymaceae	*Diplacus puniceus*	Sticky monkeyflower	CC, DCSS
Plantaginaceae	*Callitriche marginata*	long-stalk water-starwort	NNG
	Plantago erecta	dwarf plantain	NNG
Poaceae	*Avena barbata**	slender oat	NNG
	*Bromus diandrus**	common ripgut grass	NNG
	*Bromus hordeaceus**	soft brome	NNG
	Bromus madritensis ssp. *rubens**	red brome	NNG
	Cortaderia sp.*	pampas grass	DW
	*Cynodon dactylon**	Bermuda grass	DW, NNG
	Deschampsia danthonioides	annual hairgrass	NNG
	*Festuca myuros**	fescue	DCSS, NNG

Appendix E (cont.)
Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Poaceae	*Festuca perennis**	Italian ryegrass	NNG
	*Gastridium phleoides**	nit grass	DCSS
	*Lamarckia aurea**	goldentop	NNG
	*Pennisetum setaceum**	purple fountain grass	NNG
	Phalaris sp.*	canary grass	NNG
	*Polypogon monspeliensis**	annual beardgrass	NNG, DW
	*Schismus barbatus**	Mediterraneangrass	NNG
	Stipa pulchra	purple needlegrass	NNG
Polygonaceae	*Eriogonum fasciculatum*	buckwheat	DCSS
	*Rumex crispus**	curly dock	NNG, DW
Rhamnaceae	*Ceanothus oliganthus*	Orcutt ceanothus	CC
Rosaceae	*Adenostoma fasciculatum*	chamise	CC, NNG
	Heteromeles arbutifolia	toyon	DCSS
Salicaceae	*Salix gooddingii*	Gooding's black willow	EW, SWS
Selaginellaceae	*Selaginella cinerascens*†	ashy spike-moss	NNG

† Special Status Species

* Non-native Species

[1] BS=Baccharis Scrub (including disturbed); CC=Chamise Chaparral; DW=Disturbed Wetland; DCSS=Diegan Coastal Sage Scrub (including disturbed); EW=Eucalyptus Woodland; DH=Disturbed Habitat; DEV=Developed; HW=Herbaceous Wetland; NNG=Non-Native Grassland; NNV=Non-Native Vegetation; SWS=Southern Willow Scrub

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Appendix F

Animal Species Observed or Detected

Appendix F
Animal Species Observed or Detected

Taxon		Scientific Name†	Common Name
Order	**Family**		
INVERTEBRATES			
Anostraca	Branchinectidae	*Branchinecta* sp.	unidentified fairy shrimp
Lepidoptera	Hesperiidae	*Erynnis funeralis*	Funereal Duskywing
	Nymphalidae	*Danaus plexippus*	Monarch
		Vanessa sp.	unidentified Lady
	Riodinidae	*Apodemia virgulti*	Behr's Metalmark
VERTEBRATES			
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	Red-tailed Hawk
		Buteo lineatus	Red-shouldered Hawk
Apodiformes	Trochilidae	*Calypte anna*	Anna's Hummingbird
Columbiformes	Columbidae	*Zenaida macroura*	Mourning Dove
Falconiformes	Falconidae	*Falco sparverius*	American Kestrel
Passeriformes	Aegithalidae	*Psaltriparus minimus*	Bushtit
	Corvidae	*Corvus brachyrhynchos*	American Crow
	Fringillidae	*Haemorhous mexicanus*	House Finch
		Spinus psaltria	Lesser Goldfinch
	Icteridae	*Icterus cucullatus*	Hooded Oriole
	Mimidae	*Mimus polyglottos*	Northern Mockingbird
		Toxostoma redivivum	California Thrasher
	Passerellidae	*Melozone crissalis*	California Towhee
	Polioptilidae	*Polioptila californica californica*†	Coastal California Gnatcatcher
	Tyrannidae	*Sayornis nigricans*	Black Phoebe
		Sayornis saya	Say's Phoebe
		Tyrannus sp.	unidentified Kingbird
Mammals			
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail

† Special Status Species

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Appendix G

Special Status Plant Species Observed or with Potential to Occur

Appendix G
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Red sand-verbena (*Abronia maritima*)	--/-- CRPR 4.2	Perennial herb. Occurs in coastal areas of central and southern California; nearly extirpated in southern California. Grows in prostrate mats on well-developed beach dunes away from the heavy foot traffic of humans, which has severely degraded habitat on most southern California beaches. Flowering period: February to November. Elevation: below 330 feet (100 meters).	**None.** Suitable beach dune habitat is absent from the project site. The site occurs above the known elevation range of the species.
San Diego thorn-mint *(Acanthomintha ilicifolia)*	FT/SE CRPR 1B.1 MSCP Covered NE	Annual herb. Typically found on clay soils within chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Flowering period: April to June. Elevation: below 3,150 feet (960 meters).	**Low.** Suitable habitat and vernal pools occur within the project site but there are no recent occurrences of the species within the project vicinity. A single historical record from 1936 occurs north of the site within MCAS Miramar.
California adolphia (*Adolphia californica*)	--/-- CRPR 2B.1	Perennial shrub. Most often found in sage scrub but occasionally occurs in peripheral chaparral habitats, particularly hillsides near creeks on clay soils. Flowering period: December to April. Elevation: below 1,312 feet (400 meters).	**Low.** Though the suitable sage scrub and chaparral habitat occurs within the project site, suitable clay soils are not mapped. Furthermore, there are no recent records of the species within the project vicinity.
Shaw's agave (*Agave shawii* var. *shawii*)	--/-- CRPR 2B.1 MSCP Covered NE	Perennial succulent. Most often found on coastal bluffs and along mesas and foothills. Flowering period: September to May. Elevation: below 984 feet (300 meters).	**Low.** There are no recent records of the species within the project vicinity. This conspicuous perennial succulent would most likely have been observed if present.
Singlewhorl burrobrush (*Ambrosia monogyra*)	--/-- CRPR 2B.2	Perennial shrub. Found on sandy soils within washes and dry riverbeds within chaparral communities. Flowering period: September to November. Elevation: below 1,640 feet (500 meters).	**None.** Suitable sandy soils and washes are absent from the project site. Furthermore, this conspicuous perennial shrub would most likely have been observed if present. Previous observations from 1965 occur along Murphy Canyon approximately 1 mile east of the site.
San Diego ambrosia (*Ambrosia pumila*)	FE/-- CRPR 1B.1 MSCP Covered NE	Perennial herb. Occurs on sandy loam or clay, sometimes alkaline, soils. Found in native grassland, valley bottoms, dry drainages, stream floodplain terraces, and vernal pool margins. Also occurs on slopes, disturbed places, and in coastal sage scrub or chaparral. Flowering period: April to July. Elevation: 164 to 1,969 feet (50 to 600 meters).	**Low.** Potentially suitable vernal pool habitat occurs within the project site; however, there are no records of the species in the immediate vicinity of the site. The nearest occurrences of the species are located over 5 miles east within Mission Trails Regional Park along the San Diego River.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Aphanisma (*Aphanisma blitoides*)	--/-- CRPR 1B.2 MSCP Covered NE	Annual herb. Found coastally on bluffs and saline sand within sage scrub communities. Flowering period: June to September. Elevation: below 656 feet (200 meters).	**None.** The project site lacks suitable coastal bluffs and is situated too far inland for this coastal species to occur. Furthermore, there are no reported occurrences of the species within the project vicinity.
San Diego sagewort (*Artemisia palmeri*)	--/-- CRPR 4.2	Perennial herb. Typically found along stream courses, often beneath riparian woodland, on sandy and mesic soils. May occur in coast live oak woodland, coastal sage scrub, and southern mixed chaparral. Flowering period: June to October. Elevation: below 1,969 feet (600 meters).	**Low.** Suitable natural stream habitat is absent from the project site. Furthermore, there are no reported occurrences of the species within the project vicinity. The closest observations of the species are located approximately 4 miles north of the site within Soledad Canyon and further east within Mission Trails Regional Park.
Coastal dunes milk vetch (*Astragalus tener* var. *titi*)	FE/SE CRPR 1B.1 MSCP Covered NE	Annual herb. Occurs in coastal bluff scrub, coastal dunes, and coastal prairie. Associated with moist, sandy depressions of bluffs or dunes near the Pacific Ocean. Flowering period: March to May. Elevation: below 65 feet (20 meters).	**None.** Suitable coastal bluffs and dunes are absent from the project site which is situated too far inland for this coastal species to occur. Additionally, the site is located above the known elevation range of the species.
Coulter's saltbush (*Atriplex coulteri*)	--/-- CRPR 1.B.2	Perennial herb. Occurs on alkaline or clay soils within coastal dunes, coastal bluffs, coastal sage scrub, and grasslands. Flowering periods March to October. Elevation: below 1,510 feet (460 meters).	**None.** Suitable alkaline and clay soils are not mapped within the project site and there are no records of the species within the project vicinity.
Encinitas baccharis (*Baccharis vanessae*)	FT/SE CRRP 1B.1 MSCP Covered NE	Perennial shrub. Grows on sandstone within chaparral, maritime chaparral, woodlands, and Torrey-pine forest understory. Flowering period: August to December. Elevation: 196 to 2,400 feet (60 to 720 meters).	**None.** Suitable sandstone soils are absent from the project site and there are no records of the species within the project vicinity. Furthermore, this conspicuous perennial shrub would most likely have been observed if present.
San Diego County viguiera (*Bahiopsis laciniata*)	--/-- CRPR 4.3	Perennial shrub. Occurs on a variety of soil types within coastal sage scrub. Generally, shrub cover is more open than at mesic, coastal locales supporting sage scrub. Flowering period: February to August. Elevation: 295 to 2,461 feet (90 to 750 meters).	**High.** Suitable sage scrub habitat occurs within the project site and the species has been recorded within the project vicinity.
Golden-spined cereus (*Bergerocactus emoryi*)	--/-- CRPR 2B.2	Stem succulent shrub. Occurs coastally on sandy open hills within chaparral, sage scrub, and closed-cone pine forests. Flowering period: May to June. Elevation: below 328 feet (100 meters).	**Low.** Suitable sandy soils are not mapped within the project site and there are no records of the species within the project vicinity.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
San Diego goldenstar (*Bloomeria clevelandii*)	--/-- CRPR 1B.1 MSCP Covered	Perennial bulbiferous herb. Occurs in valley grasslands and coastal scrub, particularly near mima mound topography or in the vicinity of vernal pools, on clay soils. Flowering period: April to May. Elevation: 164 to 1,526 (50 to 465 meters).	**High.** Suitable vernal pool habitat, often associated with this species, occurs within the project site and there are several reported occurrences of the species to the north of the site within MCAS Miramar.
Thread-leaved brodiaea (*Brodiaea filifolia*)	FT/SE CRPR 1B.1 MSCP Covered NE	Perennial bulbiferous herb. Often associated with vernal pools and known from habitats including valley grassland, foothill woodland, coastal sage scrub, freshwater wetlands, and wetland-riparian. Flowering period: March to June. Elevation: 82 to 2821 feet (25 to 860 meters).	**Low.** Suitable vernal pool habitat occurs within the project site; however, there are no reported occurrences of the species within the project vicinity.
Orcutt's brodiaea (*Brodiaea orcuttii*)	--/-- CRPR 1B.1 MSCP Covered	Perennial bulbiferous herb. Occurs within closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. Prefers mesic or clay soils. Flowering period: May to July. Elevation: 98 to 5,550 feet (30 to 1,692 meters).	**High.** Suitable vernal pool habitat occurs within the project site and there are several reported occurrences of the species within the project vicinity including an observation from 1985 located just east of the project site within the Landmark Vernal Pool Preserve.
Lewis' evening-primrose (*Camissoniopsis lewisii*)	--/-- CRPR 3	Annual herb. Occurs on sandy or clay soils within grasslands, coastal scrub, cismontane woodland, and coastal bluffs and dunes. Flowering period: March to June. Elevation: below 984 feet (300 meters).	**Low**. Suitable habitat occurs within the project site, though sandy and clay soils were not mapped within the site. The closest reported occurrence of the species is located approximately 1.5 miles east of the site within MCAS Miramar from 2000.
Otay Mountain ceanothus (*Ceanothus otayensis*)	--/-- CRPR 1B.2	Perennial shrub. Found in chaparral dominated by chamise and ceanothus species on metavolcanic or gabbroic soils. Mild soil disturbances may enable this plant to pioneer on road cuts and in burn areas. Only known from Otay Mountain in San Diego County. Flowering period: January to April. Elevation: 1,960 to 3,600 feet (597 to 1,097 meters).	**None.** Suitable metavolcanic or gabbroic soils are not mapped within the project site. The closest occurrence of the species is located north of the project site within San Clemente Canyon in MCAS Miramar.
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	--/-- CRPR 2B.2 MSCP Covered	Perennial shrub. Found on rocky slopes within chaparral, particularly southern maritime chaparral. Flowering period: December to May. Elevation: below 1,148 feet (350 meters).	**None.** Suitable rocky slopes do not occur within the project site. The closest occurrence of the species is located north of the project site within San Clemente Canyon in MCAS Miramar.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Orcutt's spineflower (*Chorizanthe orcuttiana*)	FE/SE CRPR 1B.1	Annual herb. Found in sandy openings of coastal sage scrub, chaparral, and coniferous forests. Flowering period: March to May. Elevation: below 410 feet (125 meters).	**Low.** Suitable sandy soils are not mapped within the project site. A single occurrence from 1967 occurs approximately 1 mile west of the site; no other reported observations occur within the project vicinity.
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	--/-- CRPR 1B.2	Annual herb. Occurs in chaparral, coastal scrub, and native grassland, often in sandy soils. Flowering period: April to June. Elevation: 98 to 4,920 feet (30 to 1,500 meters).	**High**. Suitable habitat occurs within the project site and the species was reportedly observed just west of the site in 1995.
Seaside cistanthe (*Cistanthe maritima*)	--/-- CRPR 4.2	Annual herb. Occurs on sandy bluffs near the beach and sandy openings in coastal sage scrub and grasslands. Flowering period: February to June. Elevation: below 984 feet (300 meters).	**None.** Suitable sandy bluffs do not occur within the project site and the site is situated too far inland to support this coastal species. Additionally, there are no reported occurrences of the species within the project vicinity.
Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)	--/-- CRPR 1B.2	Perennial shrub. Occurs in chaparral and cismontane woodland. Flowering period: May to June. Elevation: 328 to 1,804 feet (100 to 550 meters).	**High.** Suitable chaparral habitat occurs within the project site and the species has been observed north of the site within MCAS Miramar. However, this conspicuous perennial shrub would most likely have been observed if present.
Small-flowered morning-glory (*Convolvulus simulans*)	--/-- CRPR 4.2	Annual herb. Occurs on clay soils and serpentinite seeps in openings within chaparral, coastal scrub, and native grassland. Flowering period: April to June. Elevation: 98 to 2,871 feet (30 to 875 meters).	**None**. Suitable clay soils and serpentinite seeps are not mapped within the project area. There are no reported occurrences of the species within the project vicinity.
Snake cholla (*Cylindropuntia* [*Opuntia*] *californica* var. *californica*)	--/-- CRPR 1B.1 MSCP Covered NE	Perennial stem succulent. Occurs in chaparral and coastal scrub. Flowering period: April to July. Elevation: 50 to 950 feet (15 to 290 meters).	**Low.** Suitable habitat occurs within the project site but there are no reported occurrences within the project vicinity. This conspicuous perennial stem succulent would most likely have been observed if present.
Low bush monkeyflower (*Diplacus aridus*)	--/-- CRPR 4.3	Perennial shrub. Occurs on rocky chaparral and within Sonoran desert scrub. Flowering period: April to July. Elevation: 2,460 and 3,940 feet (750 to 1,200 meters).	**None.** The project site is outside of the known elevation range for this species and does not support rocky chaparral or Sonoran desert scrub. Furthermore, there are no reported occurrences of the species within the project vicinity.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	--/-- CRPR 1B.1 MSCP Covered NE	Perennial herb succulent. Grows on open, rocky slopes, often on serpentine or clay dominated soils in coastal sage scrub and valley grassland communities. Flowering period: April to June. Elevation: below 1,476 feet (450 meters).	**None.** Suitable rocky slopes and serpentine or clay soils do not occur within the project site. The project site is situated too far inland to support this coastal species and there are no reported occurrences within the project vicinity.
Variegated dudleya (*Dudleya variegata*)	--/-- CRPR 1B.2 MSCP Covered NE	Perennial herb succulent. Occurs on clay soils of dry hillsides and mesas within chaparral, valley grassland, foothill woodland and coastal sage scrub communities. Flowering period: April to June. Elevation: below 984 feet (300 meters).	**Low.** Suitable clay soils are not mapped within the project site and there is only one historical occurrence from 1936 located north of the project site within MCAS Miramar. There are no other reported occurrences within the project vicinity.
San Diego button-celery (*Eryngium aristulatum var. parishii*)	FE/SE CRPR 1B.1 MSCP Covered VPHCP Covered VP species	Annual or perennial herb. Grows in vernal pools and other mesic areas, such as marshes. Flowering period: May to June. Elevation: below 2,313 feet (705 meters).	**High.** Vernal pools occur within the eastern portion of the project site and there are multiple occurrences of the species directly west and north of the site. The species was reportedly found within two pools in the eastern portion of the site as part of the City's vernal pool inventory surveys in 2003 (City 2004).
Cliff spurge (*Euphorbia misera*)	--/-- CRPR 2B.2	Perennial shrub. Found in rocky areas of coastal bluffs, coastal sage scrub, and Mojavean desert scrub. Flowering period: December to August. Elevation: below 1,800 feet (500 meters).	**None.** Suitable rocky areas are absent from the project site and there are no reported occurrences of the species within the project vicinity.
San Diego barrel cactus (*Ferocactus viridescens*)	--/-- CRPR 2B.1 MSCP Covered	Perennial (stem succulent) shrub. Grows in sandy to rocky areas within coastal scrub, chaparral, grasslands, and vernal pools. Flowering period: May to June. Elevation: below 1,480 feet (450 meters).	**Low.** Suitable habitat occurs within the project site but there are no reported observations of the species within the project vicinity. The closest occurrence is located over 3.5 miles southeast within Mission Trails Regional Park.
Palmer's frankenia (*Frankenia palmeri*)	--/-- CRPR 2B.1	Perennial herb. Found in coastal salt marshes and swamps, playas, and coastal dunes. Flowering period: May to July. Elevation: below 1,476 feet (450 meters).	**None.** Suitable salt marsh, swamp, playa, or coastal dune habitat does not occur within the project site.
Otay tarplant (*Hemizonia [Deinandra] conjugens*)	FT/SE CRPR 1B.1 MSCP Covered NE	Annual herb. Grows in clay soils within coastal scrub openings and grasslands. Flowering period: May to June. Elevation: 66 to 984 feet (20 to 300 meters).	**None.** Suitable clay soils are not mapped within the project site and the project site is located outside the known distribution of the species. The species is restricted to the southwestern portion of San Diego County.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Palmer's grapplinghook (*Harpagonella palmeri*)	--/-- CRPR 4.2	Annual herb. Found in clay soils in annual grasslands and coastal sage scrub. Flowering period: March to May. Elevation: 65 to 3,100 feet (20 to 955 meters).	**Low.** Suitable clay soils are not mapped within the study area; however, a single occurrence of the species was reported just north of the project site in 1981. There are no other reported occurrences of the species within the project vicinity.
Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)	--/-- CRPR 4.2	Annual herb. Occurs in grasslands, coastal scrub, chaparral, and cismontane woodland. Flowering period: May to November. Elevation: 66 to 3,675 feet (20 to 1,120 meters).	**Present.** Two patches of graceful tarplant totaling approximately 134 individuals were observed in the eastern portion of the study area within Diegan coastal sage scrub and non-native grassland.
Vernal barley (*Hordeum intercedens*)	--/-- CRPR 3.2	Annual herb. Occurs in vernal pools, alkaline flats, and dry, saline streambeds. Also found in saline flats and depressions within grasslands. Flowering period: March to June. Elevation: below 3,280 feet (1,000 meters).	**High.** Suitable vernal pool habitat was mapped within the study area, and the species was observed just north of the project site within MCAS Miramar in 2004.
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)	--/-- CRPR 1B.2	Perennial shrub. Occurs in sandy soil and disturbed areas on the inland side of dunes, hillsides, and arroyos within coastal sage scrub and chaparral communities. Flowering period: July to November. Elevation: below 656 feet (200 meters).	**Moderate.** Suitable habitat and disturbed areas occur within the project site. However, reported occurrences of the species are located over 1.5 miles northeast within Murphy Canyon, 3 miles southeast within Mission Trails Regional Park, and 3 miles west within Marian Bear Memorial Park. This conspicuous perennial shrub would most likely have been observed if present.
San Diego marsh-elder (*Iva hayesiana*)	--/-- CRPR 2B.2	Perennial herb. Found in alkaline flats, depressions, and streambanks within wetland communities. Flowering period: April to October. Elevation: 32 to 1,640 feet (10 to 500 meters).	**None.** Suitable alkaline flats, streambanks, and other wetland habitat to support is absent from the project site. This conspicuous perennial shrub would most likely have been observed if present.
Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*)	--/-- CRPR 4.2	Perennial herb. Found in moist saline environments such as alkaline seeps and meadows, and coastal salt marshes and swamps. Flowering period: May to June. Elevation: below 984 feet (300 meters).	**None.** Suitable saline habitats, alkaline seeps and meadows, and marsh or swamp habitat to support is absent from the project site. This conspicuous perennial shrub would most likely have been observed if present.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	--/-- CRPR 4.3	Annual herb. Grows in openings in sage scrub and chaparral at the coastal and foothill elevations. Typically observed in relatively dry, exposed locales rather than beneath a shrub canopy. Also, found in disturbed areas. Flowering period: March to June. Elevation: below 9,186 feet (2,800 meters).	**Low**. Suitable habitats occur within the project site but there are not reported observations of the species within the project vicinity. The nearest occurrence is located over 3 miles northwest along Rose Canyon from 2003.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Sea dahlia (*Leptosyne maritima*)	--/-- CRPR 2B.2	Perennial herb. Occurs within coastal scrub and coastal bluffs scrub. Flowering period: March to May. Elevation: below 500 feet (150 meters).	**None.** Suitable coastal bluff habitat is absent from the site and the project site is situated too far inland to support this coastal species. Furthermore, there are no reported occurrences of the species within the project vicinity.
California box-thorn (*Lycium californicum*)	--/-- CRPR 4.2	Perennial shrub. Occurs within coastal scrub and coastal bluff scrub. Flowering period: March through August (December). Elevation: below 492 feet (152 meters).	**None.** Suitable coastal bluff habitat is absent from the site and the project site is situated too far inland to support this coastal species. Furthermore, there are no reported occurrences of the species within the project vicinity.
Willowy monardella (*Monardella viminea*)	FE/SE CRPR 1B.1 MSCP Covered	Perennial herb. Occurs within alluvial ephemeral washes within coastal scrub, chaparral, and riparian habitats. Generally, there is no canopy cover, and river cobbles may lie in close proximity. Flowering period: June to August. Elevations below 1,000 feet (305 meters).	**None.** Natural alluvial, ephemeral washes are absent from the project site. The nearest occurrences of the species occur northwest within San Clemente Canyon in MCAS Miramar from 2000 and historical sightings from the 1930s to the east within Murphy Canyon.
Little mousetail (*Myosurus minimus* ssp. *apus*)	--/-- CRPR 3.1	Annual herb. Occurs in alkaline vernal pools within native grassland. Flowering period: March to June. Elevation: 65 to 2,100 feet (20 to 640 meters).	**Low.** Suitable vernal pool habitat occurs within the eastern portion of the site, but native grasslands are absent. The species was observed north of the project site within MCAS Miramar in 1979 but there are not other recent occurrences of the species within the project vicinity.
Spreading navarretia (*Navarretia fossalis*)	FT/-- CRPR 1B MSCP Covered VPHCP Covered VP species	Annual herb. Occurs in vernal pools, vernal swales, or roadside depressions. Population size is strongly correlated with rainfall. Depth of pool appears to be a significant factor as this species is rarely found in shallow pools. Flowering period: April to June. Elevation: 98 to 4,265 feet (30 to 1,300 meters).	**High.** Suitable vernal pool habitat occurs within the eastern portion of the site, and the species was observed north of the project site within MCAS Miramar in 2009 and 2011.
Prostrate vernal pool navarretia (*Navarretia prostrata*)	--/-- CRPR 1B.1	Annual herb. Occurs in mesic soil within vernal pools in coastal scrub, meadows, seeps, valleys, and foothill grasslands. Grows at mid-levels within the deeper pools to the basin bottoms of the shallower pools. Flowering period: April to July. Elevations below 4,000 feet (1,220 meters).	**Low.** Suitable vernal pool habitat occurs within the eastern portion of the site; however, there are no recent reports of this species within the project vicinity. The recent occurrences are from the late 1970s and early 1980s to the east and south of the site within lands that are now developed.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Orcutt's grass (*Orcuttia californica*)	FE/SE CRPR 1B.1 MSCP Covered VPHCP Covered VP species	Annual grass. Grows in vernal pools in valley grassland and wetland communities. Flowering period: April to August. Elevation: 197 to 2,165 feet (60 to 660 meters).	**High.** Suitable vernal pool habitat occurs within the eastern portion of the site and the species was observed to the north within MCAS Miramar in 2011.
San Diego mesa mint (*Pogogyne abramsii*)	FE/SE CRPR 1B.1 MSCP Covered VPHCP Covered VP Species	Annual herb. Occurs within vernal pools. Flowering period: March to July. Elevation: 295 and 660 feet (90 to 200 meters).	**High.** Suitable vernal pool habitat occurs within the eastern portion of the site and the species has been recorded north of the site within MCAS Miramar and directly east within the Landmark Vernal Pool Preserve. The species was reportedly found within 1 pool in the eastern portion of the site as part of the City's vernal pool inventory surveys in 2003 (City 2004).
Otay mesa mint (*Pogogyne nudiuscula*)	FE/SE CRPR 1B.1 MSCP Covered VPHCP Covered VP Species	Annual herb. Grows in coastal mesa vernal pools within chaparral, coastal sage scrub, and wetland communities. Flowering period: March to June. Elevation: 328 to 820 feet (100 to 250 meters).	**Moderate.** Suitable vernal pool habitat occurs within the eastern portion of the site; however, are not recent reports of the species within the project vanity. Reported occurrences of the species within the project vicinity are from the 1970s or earlier. There are not
Nuttall's scrub oak (*Quercus dumosa*)	--/-- CRPR 1B.1	Perennial shrub. Occurs on sandy or clay loam soils near the coast within coastal scrub, chaparral, cismontane woodland, and riparian woodland. Flowering period: March to May. Elevation: below 656 feet (200 meters).	**Present.** A total of 41 shrubs were observed within the study area including 36 within the project boundary and five within eastern portion of the study area north of Magnatron Boulevard.
Munz's sage (*Salvia munzii*)	--/-- CRPR 2B.2	Perennial shrub. Occurs within chaparral and coastal scrub. Flowering period: February to April. Elevation: 370 and 3,500 feet (115 to 1,065 meters).	**Low.** Suitable habitat occurs within the project site but there are no reported occurrences within the project vicinity. This conspicuous perennial shrub would most likely have been observed if present.
Ashy spike-moss (*Selaginella cinerascens*)	--/-- CRPR 4.1	Rhizomatous fern. Occurs in chaparral and coastal sage scrub. Elevation: below 1,804 feet (550 meters).	**Present.** A total of 16 small patches of this species were observed within the eastern portion of the study area within Diegan coastal sage scrub, chamise chaparral, and non-native grassland.
Chaparral ragwort (*Senecio aphanactis*)	--/-- CRPR 2B.2	Annual herb. Occurs on alkali flats and dry, open, rocky areas within foothill woodland, northern coastal scrub, and coastal sage scrub communities. Flowering period: February to May. Elevation: 33 to 1,804 feet (10 to 550 meters).	**None.** Suitable alkali flats and dry, open rocky areas do not occur within the project site and there are no reported occurrences of the species within the project vicinity.

Appendix G (cont.)
Special Status Plant Species Observed or With Potential to Occur

Species	Status[1]	Habit, Ecology and Life History	Potential to Occur[2]
Salt spring checkerbloom (*Sidalcea neomexicana*)	--/-- CRPR 2B.2	Perennial herb. Occurs within chaparral, lower montane coniferous woodland, Mojavean desert scrub, playas, and coastal scrub. Flowering period: March to June. Elevation: 50 and 5,020 feet (15 to 1,530 meters).	**Low.** Suitable habitat occurs within the project site; however, the only reported occurrence of the species is located over 3.5 miles northeast of the site near Miramar Nation Cemetery from 1961. There are no other reported occurrences of the species within the project vicinity.
Purple stemodia (*Stemodia durantifolia*)	--/-- CRPR 2B.1	Perennial herb. Grows on wet sand or rocks and drying streambeds within riparian habitats. Flowering period: year-round. Elevation: below 1,312 feet (400 meters).	**None.** Suitable natural streambed and riparian habitat is not present within the project site. Furthermore, there are no reported occurrences of the species within the project vicinity.
San Diego County needle grass (*Stipa diegoensis*)	--/-- CRPR 4.2	Perennial herb. Found in rocky, mesic soils near streams or along the coast within coastal scrub and chaparral. Flowering period: February to June. Elevation: 30 to 2,600 feet (10 and 800 meters).	**None.** Suitable rocky, mesic soils and natural stream habitat occur within the project site. Furthermore, there are no reported occurrences of the species within the project vicinity.
Woolly seablite (*Suaeda taxifolia*)	--/-- CRPR 4.2	Shrub. Occurs in the margins of coastal salt marshes, coastal dunes, and coastal bluff scrub. Flowering period: all year. Elevation: below 49 feet (15 meters).	**None.** Suitable coastal salt marsh, coastal dunes, and coastal bluff habitat does not occur within the project site. Furthermore, the project site is above the known elevation range of the species.

[1] Listing codes as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; R = Rare

CRPR = California Native Plant Society Rare Plant Rank: 1A – presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California, but more common 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.

MSCP Covered Species: Covered Species under City Multiple Species Conservation Plan (MSCP) Subarea Plan; VPHCP Covered Species: Covered Species under the City Vernal Pool Habitat Conservation Plan (VPHCP); NE = Narrow Endemic Species; VP Species = Vernal Pools Species listed under the VPHCP.

[2] Potential to Occur is assessed as follows: **None**: There are no present or historical records of the species occurring on or in the immediate vicinity of the project site and the diagnostic habitats and soils associated with the species do not occur on or in the immediate vicinity of the project; **Low**: Suitable habitat is present in the project site and a historical record of the species occurs in the immediate vicinity but existing conditions such as elevation, soils, density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, and/or isolation substantially reduce the possibility that the species may occur; **Moderate**: The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity; **High**: Suitable habitat occurs in the project site and the species has been recorded recently on or in the immediate vicinity but the species was not observed during project surveys; **Present**: The species was observed during biological surveys for the project and is assumed to occupy the project site; **Presumed Absent**: Species would be visible all year and would have been observed if present.

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Appendix H

Special Status Animal Species Observed or with Potential to Occur

Appendix H
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Invertebrates			
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE/-- MSCP Covered VPHCP Covered VP Species	Restricted to vernal pools and other ephemeral basins in southern California from coastal Orange County to San Diego County. Found 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.	**High**. The project is located within USFWS-designated critical habitat for the species and suitable vernal pool habitat occurs within the eastern portion of the site. The species was reportedly found within several of these eastern vernal pools part of the City's vernal pool inventory surveys in 2003 (City 2004). Fairy shrimp of the genus *Branchinecta* were observed within four of the eastern vernal pools, though the individuals were not identified to the species level.
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE/-- MSCP Covered	Occurs in California from western Riverside County southwards to southern San Diego County. Inhabits open and sparsely vegetated areas that contain larval host plant species (principally dot-seed plaintain [*Plantago erecta*], woolly plantain [*Plantago patagonia*] but also Coulter's snapdragon [*Antirrhinum coulterianum*], and rigid bird's beak [*Cordylanthus rigidus*]) and nectar sources. Often found on rounded hilltops, ridgelines, and occasionally rocky outcrops. Occurs within a wide range of open-canopied habitats including vernal pools, sage scrub, chaparral, grassland, and open oak and juniper woodland communities.	**Low**. Suitable habitat occurs within the project site; however, there are no recent observations of the species in the vicinity of the project likely due its disturbed nature and landscape position, which is isolated from core populations. The project site occurs outside the recommended quino survey area (USFWS 2014).
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE— MSCP Covered VPHCP Covered VP Species	In California, occurs from Los Angeles County south to coastal San Diego County, and east to western Riverside County. Found in deep seasonal vernal pools, ephemeral ponds, stock ponds, and other human modified depressions at least 30 centimeters deep. Associated with grasslands, which may be interspersed through chaparral or coastal sage scrub vegetation.	**Moderate.** Vernal pool habitat was mapped on the project site outside the proposed development footprint; however, there are no reports of the species within the project vicinity. The closest reported occurrence of the species is located approximately 4 miles northwest within Marine Corps Air Station (MCAS) Miramar from 1994. The majority of occurrences within San Diego County are located in Otay Mesa and Marine Corps Base Camp Pendleton. Additionally, the vernal pools within the project site may not pond as deeply as 30 cm.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Amphibians			
Western spadefoot toad (*Spea hammondii*)	--/SSC	Occurs from northern California southward to San Diego County, and to the west of the Sierra Nevada at elevations below 4,500 feet. Terrestrial species requiring temporary pools for breeding. Suitable upland habitats include coastal sage scrub, chaparral, and grasslands. Most common in grasslands with vernal pools or mixed grassland-coastal sage scrub areas. Breeds in temporary pools formed by heavy rains, but also found in riparian habitats with suitable water resources. Breeding pools must lack exotic predators such fish, bullfrogs, and crayfish for the species to successfully reproduce. Estivates in burrows within upland habitats adjacent to potential breeding sites.	**High**. Suitable vernal pool habitat occurs within the eastern portion of the site, outside of the proposed development footprint, which could be used for breeding. Additionally, tadpoles were reported to the west of the site within the Sander vernal pools in 2012.
Reptiles			
San Diegan legless lizard (*Anniella stebbinsi*)	--/SSC	Occurs in southern California from San Barbara County south to San Diego County, and east into Antelope Valley of the western Mojave Desert. An isolated population is found in the Tehachapi and Piute mountains of Kern County. Inhabits sparsely vegetated areas with moist warm, loose soil with plant cover; moisture is essential. Common in several habitats but especially in beach dunes, coastal scrub, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Found primarily in areas with sandy or loose organic soils or where there is plenty of leaf litter. Sometimes found in suburban gardens in southern California.	**Low.** Suitable habitat is present within the project site; however, there are no recent reported occurrences of the species within the project vicinity. The closest recorded observations are located approximately 1.5 miles north within MCAS Miramar and date back to the 1940s.
California glossy snake (*Arizona elegans occidentalis*)	--/SSC	Occurs along the coastal regions from San Francisco south to San Diego County; though it is absent along the central coast of California. Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas and areas with soils loose enough for easy burrowing.	**Low.** Suitable habitat occurs within the project site; however, there are no recent reported occurrences of the species within the project vicinity. The closest recorded observation is located approximately 1.6 miles south at the Montgomery-Gibbs Executive Airport where the species was collected in 1926.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Reptiles (cont.)			
Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)	--/WL MSCP Covered	Found within the southwestern portion of California in southern San Bernardino, western Riverside, Orange, and San Diego Counties on the western slopes of the Peninsular ranges below 3,500 feet. Suitable habitat includes coastal sage scrub, chaparral, juniper woodland, oak woodland, and grasslands along with alluvial fan scrub and riparian areas. Occurrence of the species correlated with the presence perennial plants (such as California buckwheat, California sagebrush, black sage, or chaparral) to provide a food base for its major food source, termites.	**High.** Suitable habitat, including chaparral and sage scrub, occurs within the project site and there are multiple reported observations of the species within the project vicinity, specifically within MCAS Miramar.
Red diamond rattlesnake (*Crotalus ruber*)	--/SSC	Occurs in the southwestern portion of California from San Bernardino County southward to San Diego County at elevations below 5,000 feet. Has a wide tolerance for varying environments including the desert, dense foothill chaparral, warm inland mesas and valleys, and cool coastal zones. Most commonly found near heavy brush with large rocky microhabitats. Chamise and red shank chaparral associations may offer better structural habitat for refuges and food resources.	**Moderate.** Suitable habitat sage scrub and chaparral habitat occurs within the project site, though rocky areas are generally absent. However, there are few reported observations of the species within the project vicinity. The most recent reported occurrences are located approximately 4.5 miles northeast of the site within Elliott Chaparral Reserve, formerly part of the Camp Elliott Military Reservation.
Blainville's horned lizard (*Phrynosoma blainvillii*)	--/SSC MSCP Covered	Occurs from southern California to northern Baja California. In California, the species predominately occurs from Kern County south to San Diego County west of the desert at elevations below 8,000 feet. Inhabits a wide variety of vegetation types including sagebrush scrub, chaparral, grasslands, forests, and woodlands but is restricted to areas with suitable sandy, loose soils with open areas for basking. Diet primarily composed of native harvester ants (*Pogonmyrmex* sp.) and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**Moderate**. Suitable sage scrub and chaparral habitat occurs within the project site but sandy soils generally absent. There are several reported observations of the species within the project vicinity, mostly within MCAS Miramar.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Reptiles (cont.)			
Coronado skink (*Plestiodon skiltonianus interparietalis*)	--/WL	Occurs from in coastal and inland portions of southern San Diego County, though the can occur up into Riverside County where it intergrades with Skilton's skink (*Plestiodon skiltonianus skiltonianus*). Suitable habitats include grassland, woodlands, pine forests, and chaparral, especially in open sunny areas such as clearings and edges of creeks or rivers. Prefers rocky areas near streams with lots of vegetation but can also be found in areas away from water. Occasionally seen foraging in leaf litter but more commonly found underneath surface objects, such as bark or rocks, where it lives in extensive burrows.	**Moderate.** Suitable habitat grassland and chaparral habitat occurs within the project site; however, the site lacks creeks or rivers with a single man-made drainage occurring within the eastern portion of the site. There are reported observations of the species within the project vicinity, mostly within Elliott Chaparral Reserve located approximately 4.5 miles northeast of the site.
California newt (*Taricha torosa*)	--/SSC	Found along coastal drainages from central Mendocino County south to San Diego County at elevations below 6,000 feet. Populations in southern California appear to be highly fragmented. Adult newts eat a wide variety of aquatic and terrestrial invertebrates (earthworms, insects, snails, beetles, butterflies, and stoneflies; as well as egg masses and larvae, and carrion.	**None**. Suitable aquatic habitat to support the species is absent from the site. A single historical occurrence from 1958 is located approximately 1.1 miles west of the site. This species is known almost entirely from the Cuyamaca Mountains, over 25 miles east.
Two-striped garter snake (*Thamnophis hammondii*)	--/SSC	Found in California from Monterey County south along the coast to San Diego County and into northern Baja California at elevations below 7,000 feet. Commonly inhabits perennial and intermittent streams with rocky beds bordered by riparian habitats dominated by willows and other dense vegetation. The species has also been found in stock ponds and other artificially created aquatic habitats if bordered by dense vegetation and potential prey, such as amphibians and fish, are present.	**None.** Suitable aquatic habitat to support the species is absent from the site. The closest reported occurrences of the species are located 1 mile west of site within Murphy Canyon and over 3.5 miles west within Mission Trails Regional Park.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds			
Cooper's hawk (*Accipiter cooperii*)	--/WL MSCP Covered	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. Inhabits forests, riparian areas, and more recently suburban and urban areas nesting within dense woodlands and forests and isolated trees in open areas.	**High.** Suitable habitat occurs within the project site and there are numerous occurrences of the species reported within the project vicinity.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	--/WL MSCP Covered	Restricted to southwestern California occurring from Santa Barbara County southwards to San Diego County at elevations below 5,000 feet. Generally found on moderate to steep slopes vegetated with grassland, coastal sage scrub, and chaparral. Prefer areas with California sagebrush but area also generally absent from areas with dense stands of coastal sage scrub or chaparral. May occur on steep grassy slopes without shrubs if rock outcrops are present.	**Low**. Though coastal sage scrub and chaparral occurs within the project site, the site is generally flat lacking suitable sloped areas to support the species. There are several eBird (2019) sightings reported within the project vicinity including to the north within MCAS Miramar.
Grasshopper sparrow (*Ammodramus savannarum*)	--/SSC	In California, generally occurs west of the Cascade and Sierra Nevada foothills from Del Norte County south to San Diego County below 4,900 feet. Primarily a grassland species that prefers short to middle-height, moderately open grasslands with scattered shrubs. More likely to be found in large tracts of habitat instead of small fragments.	**Low.** Non-native grassland with scattered shrub occurs within the eastern portion of the site, mostly outside the proposed development footprint. However, this habitat is highly fragmented and surrounded by development. Recent eBird sightings of the species occur north of the site within higher quality habitat located within MCAS Miramar.
Bell's sparrow (*Artemisiospiza belli*)	BCC/WL	Non-migratory resident on the coastal ranges of California and western slopes of the central Sierra Nevada mountains. Occurs year-round in southern California. Breeds in dry coastal sage scrub and chaparral, desert scrub, and similar other open, scrubby habitats. In foothill chaparral, they tend toward younger, less dense stands that are recovering from recent fires; less common in older, taller stands that have remained unburned.	**Low**. Potentially suitable sage scrub habitat occurs within the project site; however, there are few reported observations of the species within the project vicinity. Reported occurrences of the species are located north of the site within MCAS Miramar and further east within Mission Trail Regional Park.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
Burrowing owl (*Athene cunicularia*)	BCC/SSC MSCP Covered MSCP NE	Found from central California east to the Mojave Desert and south to coastal San Diego County. Primarily a grassland species that prefers areas with level to gentle topography and well-drained soils. Species can also occupy agricultural areas, vacant lots, and pastures. Requires underground burrows for nesting and roosting that are typically dug by other species such as California ground squirrel (*Spermophilus beecheyi*). Also utilizes natural rock cavities, debris piles, culverts, and pipes for nesting and roosting.	**Low.** Though potentially suitable grassland habitat occurs within the project site, suitable burrows and California ground squirrels were not detected during project surveys conducted to date. Furthermore, there is only a single reported occurrence of the species within the project vicinity. The species was detected approximately 2 miles southeast of the site at the Montgomery-Gibbs Executive Airport in September/October 1993. Though migrating individuals may temporarily utilize the site, the species is not anticipated to winter or breed within the project site based on the lack of observations within the surrounding area.
California horned lark (*Eremophila alpestris actia*)	--/WL	One of 21 recognized subspecies occurring in the coastal ranges of California from San Joaquin Valley to northern Baja California. Inhabits a wide variety of open habitats with low, sparse vegetation where trees and large shrubs are generally absent. Suitable habitats include grasslands along the coast, deserts within the inland regions, shrub habitat at higher elevations, and agricultural areas.	**High**. Suitable habitat is present within the project site and there a reported eBird sightings of the sites northwest of the site within MCAS Miramar.
Prairie falcon (*Falco mexicanus*)	BCC/WL	In California, the species is an uncommon permanent resident and migrant that ranges from southeastern deserts northwest along the inner coastal mountains and Sierra Nevada but is absent from northern coastal fog belt. Primary habitats include grasslands, savannahs, alpine meadows, some agricultural fields during the winter season, and desert scrub areas where suitable cliffs or bluffs are present for nest sites. Requires sheltered cliff ledges for cover and nesting which may range in height from low rock outcrops of thirty feet to cliffs up to and higher than 400 feet.	**Low.** Suitable foraging habitat occurs within the project site, but suitable nesting habitat is absent. If present, this species likely only occurs as a migrant or foraging visitor. Reported eBird sightings of the species are located approximately 5 miles east of the site within Mission Trails Regional Park.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/SSC MSCP Covered	Year-round resident of California occurring from Ventura County south to San Diego County, and east to the western portions of San Bernardino and Riverside Counties. Typically occur in arid, open sage scrub habitats on gently slopes hillsides to relatively flat areas at elevations below 3,000 feet. The composition of sage scrub in which gnatcatchers are found varies; however, California sagebrush is at least present as dominant or co-dominant species. The species is mostly absent from areas dominated by black sage, white sage, or lemonadeberry, though the species may occur more regularly in inland regions dominated by black sage.	**Present.** A family group of three individuals were observed foraging and calling on the slope north of the site.
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE MSCP Covered	Breeds within California and northern Baja California, wintering in southern Baja California. In California, breeds along the coast and western edge of the Mojave Desert from Santa Barbara County south to San Diego County, and east to Inyo County, San Bernardino, and Riverside Counties. Breeding habitat consists of early to mid-successional riparian habitat, often where flowing water is present, but also found in dry watercourses within the desert. A structurally diverse canopy and dense shrub cover is required for nesting and foraging. Dominant species within breeding habitat includes cottonwood and willows with mule fat, oaks, and sycamore, and mesquite (*Prosopis glandulosa*) and arrowweed (*Pluchea sericea*) within desert habitats. The species can be tolerant of the presence of non-native species such as tamarisk.	**None**. Suitable riparian habitat required by the species is absent from the project site. Reported occurrences of the species are located northeast and east of the site within San Clemente and Murphy Canyons.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals			
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	--/SSC	Occurs within the foothills and mountains of southern California from Orange County, western Riverside County, and San Diego County. Inhabits a variety of habitats including grassland, coastal scrub, chaparral, sagebrush, desert wash and scrub, oak woodland, and pinyon-juniper woodlands. Prefers gravelly substrates with good sun exposure and is often found within or on the edge of chaparral. More abundant on steeper than gentler slopes and may occur on the upper portions of the desert slopes of the mountains.	**Moderate**. Suitable habitat and soils are present within the project site; however, there are few reported occurrences of the species within the project vicinity. The species was reported approximately 1.5 miles northwest of the site within MCAS Miramar in 1999 and over 4 miles east of the site within Mission Trail Regional Park in 1994. The project site is geographically isolated and separated from these areas by multiple large transportation corridors and development reducing the likelihood that the species occupies the site.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	--/SSC	Occurs throughout southwestern California from western Riverside County south to San Diego County at elevations below 6,000 feet. Inhabits coastal sage scrub, grasslands, and chaparral communities, and generally exhibits a strong microhabitat affinity for moderately gravelly and rocky substrates. Forage for seeds from California sagebrush, California buckwheat, lemonadeberry, and grasses under shrub and tree canopies, or around rock crevices.	**Moderate.** Suitable habitat and soils are present within the project site. The species has been observed approximately 1.5 miles northwest of the site within MCAS Miramar in the 1990s and over 4 miles east of the site within Mission Trail Regional Park as recently as 2004. However, the project site is geographically isolated and separated from these areas by multiple large transportation corridors and development reducing the likelihood that the species occupies the site.
Mexican long-tongued bat (*Choeronycteris mexicana*)	--/SSC	Found in southern California from Ventura County south to San Diego County. Occurs in arid habitats below 7,900 feet such grasslands, scrub, mixed forest, and canyons in mountain ranges rising from the desert. Primarily found in urban and suburban areas in San Diego County. Roosts in in caves and mines, and man-made structures such as garages, office buildings, under porches, and warehouses.	**Low.** Potentially suitable habitat and roosting structures occur within the project site; however, there is only one reported occurrence of the species within the project vicinity from 1946. This species feeds on agave nectar which is not available at the project site.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals (cont.)			
Western mastiff bat (*Eumops perotis californicus*)	--/SSC	In California, the species occurs from Monterey County south to San Diego County from the coast eastward to the Colorado Desert. Found in open, semi-arid to arid habitats including coastal and desert scrub, grasslands, woodlands, and palm oases. Prefers to roost in high situations above the ground on vertical cliffs, rock quarries, outcrops of fractured boulders, and occasionally tall buildings.	**Low.** Potentially suitable habitat occurs within the project site, but the site lacks tall buildings and other suitable roosting structures for the species. Two historical reports from 1900 occur within the project vicinity with other more recent observations from 1997 located north of the project site along San Clemente Canyon within MCAS Miramar.
Western red bat (*Lasiurus blossevillii*)	--/SSC	In California, the species is locally common occurring from Shasta County south to San Diego County and west of the Sierra Nevada/Cascade Range and deserts. Mainly occurs in riparian woodlands populated by willows, cottonwoods, sycamores, and oak trees but can be found in non-native vegetation such as tamarisk, eucalyptus, and orchards. Primarily roosts in trees preferring heavily shaded areas that are open underneath.	**Low.** Preferred riparian habitat does not currently occur on site. One historical report from 1900 is located within the project vicinity with other more recent observations from located over 4 miles southeast of the site within Mission Trails Regional Park.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	--/SSC	Occurs along the coastal regions of southern California south to northern Baja California. Found in arid regions preferring grasslands, agricultural fields, and sparse scrub. Typically absent from areas with high-grass or dense brush, such as closed-canopy chaparral, primarily occupying short-grass and open scrub habitats.	**Low**. Potentially suitable habitat within the project site is highly fragmented and separated from higher quality habitat within MCAS Miramar by State Route (SR-) 52. Additionally, there are no reported occurrences located within the project vicinity. Observations of the species are located over 4 miles northeast and southeast of the site within Elliott Chaparral Reserve and Mission Trails Regional Park.

Appendix H (cont.)
Special Status Animal Species Observed or With Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals (cont.)			
San Diego Bryant's (formerly desert) woodrat (*Neotoma bryanti [formerly lepida] intermedia*)	--/SSC	Occurs along the coastal regions of California being found as far north as San Luis Obispo County, south to San Diego County, and in the western portions of San Bernardino and Riverside Counties. Inhabits a variety of shrub and desert habitats such as coastal sagebrush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland among others. Often associated with rock outcroppings, boulders, cacti patches, and areas with dense understories. Construct dens used for shelter, food storage, and nesting around rock outcroppings and cacti using various materials such as twigs, sticks, and other debris.	**Moderate**. Suitable sage scrub and chaparral habitat occurs within the project site but rock outcroppings and cacti where dens are constructed are absent from the site. There are several reports of the species north of the project site within MCAS Miramar and further east within Mission Trails Regional Park.
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	--/SSC	Rare in California occurring from Los Angeles County eastwards to San Bernardino County, and southwards to San Diego County. Closely associated with their preferred roosting habitats consisting of vertical cliffs, quarries, and rocky outcrops. Sometimes roosts under tiled roofs and observed utilizing bat boxes. Habitat generalists foraging in grasslands, shrublands, riparian areas, oak woodlands, forests, meadows, and ponds favoring larger water bodies for drinking.	**Moderate**. Potentially suitable foraging habitat occurs within the project site, but preferred roosting habitat is absent. There are several reports of the species north of the project site within MCAS Miramar and further east within Mission Trails Regional Park.

[1] Listing codes are as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; R = Rare; BCC = Federal Bird of Conservation Concern; SSC = State Species of Special Concern; FP = State Fully Protected; WL = Watch List

MSCP Covered Species: Covered Species under City Multiple Species Conservation Plan (MSCP) Subarea Plan; VPHCP Covered Species: Covered Species under the City Vernal Pool Habitat Conservation Plan (VPHCP); NE = Narrow Endemic Species; VP Species = Vernal Pools Species listed under the VPHCP.

[2] Potential to Occur is assessed as follows: **None**: Species is so limited to a particular habitat that it cannot disperse on its own, and habitat suitable for its establishment and survival does not occur in the project site; **Not Expected**: There are no present or historical records of the species occurring on or in the immediate vicinity of the project site. The species moves freely and might disperse through or across the site, but suitable habitat for residence or breeding does not occur; **Low**: Suitable habitat is present in the project site and there is a historical record of the species in the project vicinity, but no sign of the species was observed during surveys. Existing conditions such as elevation, species composition, density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, and/or isolation may substantially reduce the possibility that the species may occur; **Moderate:** Diagnostic habitats associated with the species occur on or adjacent to the project site, but there is not a recorded occurrence of the species within the immediate vicinity. Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity; **High**: Suitable habitat associated with the species occurs in the project site and the species has been recorded recently on or near the project, but was not observed during biological surveys; **Present**: The species was observed during biological surveys for the project and is assumed to occupy the project site.

Appendix I

Explanation of Status Codes for Plant and Animal Species

Appendix I
Explanation of Status Codes for Plant and Animal Species

FEDERAL AND STATE CODES

U.S. Fish and Wildlife Service (USFWS)

BCC	Bird of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
FC	Federal candidate species
FE	Federally listed endangered
FPD	Federally proposed for delisting
FPE	Federally proposed endangered
FPT	Federally proposed threatened
FT	Federally listed threatened

USFWS Birds of Conservation Concern (BCC)

The primary legal authority for Birds of Conservation Concern (2008) is the Fish and Wildlife Conservation Act of 1980 (FWCA), as amended. Other authorities include the Endangered Species Act, Fish and Wildlife Act (1956) and 16 USC §701. A FWCA 1988 amendment (Public Law 100-653, Title VIII) requires the Secretary of the Interior through the USFWS to "identify species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." The 2008 BCC report is the most recent effort by the USFWS to carry out this proactive conservation mandate.

The BCC report aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent the USFWS' highest conservation priorities and draw attention to species in need of conservation action. The USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. Birds of Conservation Concern 2008 lists are available online at https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php.

USFWS Federal Candidate (FC) Species

Federal candidate species are those for which the USFWS has on file "sufficient information on biological vulnerability and threats to support a proposal to list as endangered or threatened, but for which preparation and publication of a proposal is precluded by higher-priority listing actions. [The USFWS] maintain[s] this list for a variety of reasons: to notify the public that these species are facing threats to their survival; to provide advance knowledge of potential listings that could affect decisions of environmental planners and developers; to provide information that may stimulate conservation efforts that will remove or reduce threats to these species; to solicit input from interested parties to help us identify those candidate species that may not require protection under the [Endangered Species Act] or additional species that may require the Act's protections; and to solicit necessary information for setting priorities for preparing listing proposals" (Federal Register 70:90 [May 11, 2005]).

Appendix I (cont.)
Explanation of Status Codes for Plant and Animal Species

USFWS Federal Proposed Endangered (FPE) Species

Any species the Service has determined is in danger of extinction throughout all or a significant portion of its range and the Service has proposed a draft rule to list as endangered. Proposed endangered species are not protected by the take prohibitions of section 9 of the ESA until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species.

USFWS Federal Proposed Threatened (FPT) Species

Any species the Service has determined is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and the Service has proposed a draft rule to list as threatened. Proposed threatened species are not protected by the take prohibitions of section 9, consistent with any protective regulations finalized under section 4(d) of the ESA, until the rule to list is finalized. Under section 7(a)(4) of the ESA, federal agencies must confer with the Service if their action will jeopardize the continued existence of a proposed species.

USFWS Bald and Golden Eagle Protection Act (BGEPA)

In 1782, Continental Congress adopted the bald eagle as a national symbol. During the next one and a half centuries, the bald eagle was heavily hunted by sportsmen, taxidermists, fisherman, and farmers. To prevent the species from becoming extinct, Congress passed the Bald Eagle Protection Act in 1940. The Act was extremely comprehensive, prohibiting the take, possession, sale, purchase, barter, or offer to sell, purchase, or barter, export or import of the bald eagle "at any time or in any manner."

In 1962, Congress amended the Eagle Act to cover golden eagles, a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. The golden eagle, however, is accorded somewhat lighter protection under the Act than the bald eagle. Another 1962 amendment authorizes the Secretary of the Interior to grant permits to Native Americans for traditional religious use of eagles and eagle parts and feathers.

California Department of Fish and Wildlife (CDFW)

SCE	State candidate for listing as endangered
SCT	State candidate for listing as threatened
SE	State listed endangered
SR	State listed rare
ST	State listed threatened
SSC	State species of special concern
WL	Watch List
FP	Fully Protected species refers to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.
Special Animal	Refers to all vertebrate and invertebrate taxa of concern to the Natural Diversity Database regardless of legal or protection status.

Appendix I (cont.)
Explanation of Status Codes for Plant and Animal Species

OTHER CODES AND ABBREVIATIONS

California Native Plant Society California Rare Plant Rank (CRPR) Codes

Lists

1A = Presumed extirpated in California and either rare or extinct elsewhere. Eligible for state listing.

1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.

2A = Presumed extirpated in California but common elsewhere. Eligible for state listing.

2B = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.

3 = Review List: Plants about which more information is needed. Some eligible for state listing.

4 = Watch List: Plants of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

List/Threat Code Extensions

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

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

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

A “CA Endemic” entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.

Appendix I (cont.)
Explanation of Status Codes for Plant and Animal Species

City of San Diego

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the City has take authorization within the MSCP area.

MSCP Narrow Endemic (NE)

Some native species (primarily plants with restricted geographic distributions, soil affinities, and/or habitats) are referred to as a narrow endemic species. For vernal pools and identified narrow endemic species, the jurisdictions will specify measures in their respective subarea plans to ensure that impacts to these resources are avoided to the maximum extent practicable.

Vernal Pool Habitat Conservation Plan (VPHCP) Covered

Threatened and endangered vernal pool species covered under the City's Vernal Pool Habitat Conservation Plan that do not currently have federal coverage under the City's Multiple Species Conservation Program Subarea Plan. The Vernal Pool Vernal Pool Habitat Conservation Plan is compatible with the MSCP and expands upon the City's existing Multi-Habitat Planning Area to conserve additional lands with vernal pool resources.