Enclave Park Project

Biological Technical Report

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ACRONYMS AND ABBREVIATIONS

BCLA	Biological Core and Linkage Area
BMP	best management practice
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
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
CWA	Clean Water Act
ESHA	environmentally sensitive habitat area
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
HCP	Habitat Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
I-	Interstate
LCP	Local Coastal Program
LUAG	Land Use Adjacency Guidelines
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MSCP	Multiple Species Conservation Plan
NPPA	Native Plant Protection Act
NWI	National Wetland Inventory
Porter-Cologne	Porter-Cologne Water Quality Control Act
project	Enclave Park Project
project proponent	Breakthrough Properties
RWQCB	Regional Water Quality 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

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 proposed Enclave Park Project (project) for project proponent Breakthrough Properties. The study was conducted to provide the City of San Diego (City), resource agencies, and the public with current biological data for 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, plant and wildlife species observed, and identifies sensitive resources. It also identifies special status species with the potential to occur within and immediately adjacent to the project site. In addition, project impacts are assessed, and mitigation measures are proposed to offset the proposed project's potential impacts to sensitive biological resources.

1.2 PROJECT LOCATION

The approximately 5.4-acre Enclave Park Project site is located in the community of Torrey Pines in the City of San Diego, San Diego County, California (Figure 1, *Regional Location*). It lies within Section 5 of Township 15 South, Range 3 West, of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located south of Highway 56, east of Interstate (I-) 5, and northeast of I-805, in San Diego, California (Figure 1). The site is specifically located at 4122, 4174, and 4202 Sorrento Valley Boulevard, San Diego, CA 92121 (Assessor's Parcel Numbers 341-120-09-00 and 341-120-10-00), south of the Los Peñasquitos Preserve (Figure 3, *Aerial Vicinity*). The site is located within the City's Multiple Species Conservation Program (MSCP) Subarea Plan and Coastal Overlay Zone (Figure 4, *Regional Context*). A portion of the northern portion of the project site encompasses the City's Multi-Habitat Planning Area (MHPA; Figure 3). U.S. Fish and Wildlife Service (USFWS)-designated critical habitat does not occur within or near the proposed project.

1.3 PROJECT DESCRIPTION

The project consists of the redevelopment of the current property with a Life Science/Research and Development building at 4122, 4174, and 4202 Sorrento Valley Boulevard. The project will include office space, a parking structure, and supporting amenities, such as a gym, consistent with the requirements of the Torrey Pines Community Plan (City 2014). The property currently supports seven commercial buildings with associated parking and landscaping. The existing buildings and surrounding improvements will be demolished prior to development. The project would include removing the existing asphalt drive isles and surface parking and creating a landscape area between the existing Los Peñasquitos Creek and the future buildings, including approximately 0.2 acre on City owned lands (Figure 5, *Site Plan*). The project also includes off-site improvements to the east and south of the property, including driveways, stormwater improvements, and raised concrete medians on Sorrento Valley Boulevard. The project's environmental permits would include a Coastal Development Permit (CDP) and a Site Development Permit. The project would also obtain a Right-of-Entry permit from the City to remove the asphalt parking from the City-owned lands adjacent to the project and to conduct the 25-month revegetation of this area.

The project also includes design features to avoid impacts to sensitive species with the potential to occur in the adjacent Los Peñasquitos Creek. Specifically, the project will avoid direct impacts to all riparian habitat associated with Los Peñasquitos Creek and will incorporate a 100-foot wetland buffer between Los Peñasquitos Creek and project development. During construction, the limits of work will be fenced to protect adjacent areas.

2.0 SURVEY METHODS

2.1 LITERATURE REVIEW

Prior to conducting field surveys, HELIX conducted a thorough review of relevant maps, databases, and literature 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] 2020), 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 2021a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2021), Calflora database (Calflora 2022), SanBIOS (County of San Diego 2022), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022). The USFWS' National Wetlands Inventory (NWI) was also reviewed (USFWS 2021b). Any recorded locations of species, habitat types, wetlands, and other resources were mapped and overlaid onto aerial imagery using Geographic Information Systems.

2.2 GENERAL BIOLOGICAL SURVEY

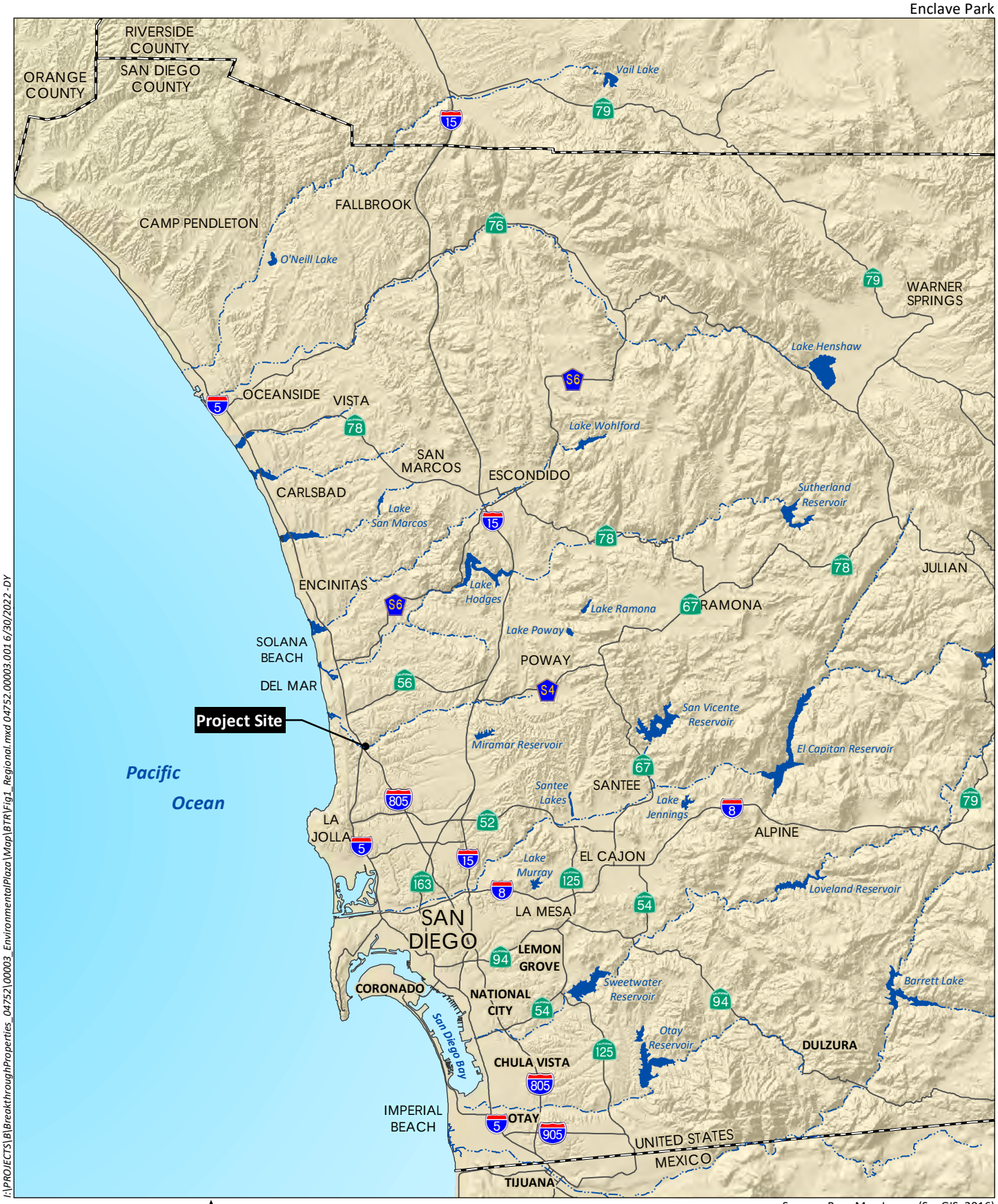
HELIX biologist Katie Duffield conducted an initial general biological survey of the project study area (i.e., the project site and an additional 100 feet adjacent to the site) on January 11, 2022 (Table 1, *Survey Information*). Vegetation was mapped on a 1"=90' scale aerial of the site. A minimum mapping unit size of 0.1 acre was used when mapping upland habitats, and 0.01 acre was used when mapping wetland and riparian habitats. The study area was surveyed on foot and with the aid of binoculars. During the general biological survey, Ms. Duffield assessed the habitat and site conditions for the potential to support sensitive plant and wildlife species.

Table 1
SURVEY INFORMATION

Date	Personnel	Survey Type
January 11, 2022	Katie Duffield	General Biological Survey, Vegetation Mapping, Habitat Assessment, Preliminary Jurisdictional Assessment
June 28, 2022	Alexander Walsh	Arborist Survey
January 24, 2023	Alexander Walsh	Arborist Survey

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

Enclave Park



I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\BTR\Fig1_Regional.mxd 04752.00003.001 6/30/2022 - DY

0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1

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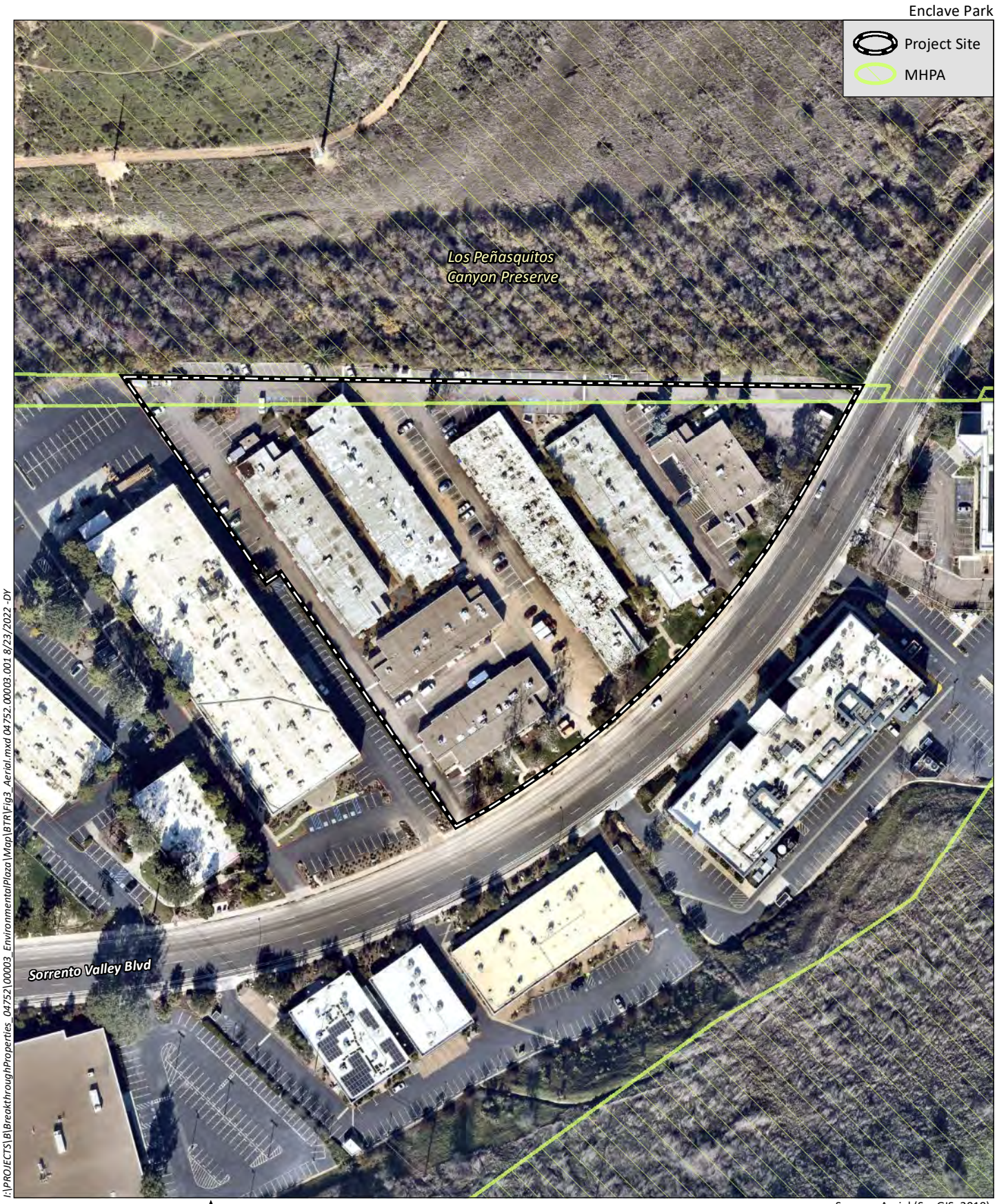
Source: DEL MAR 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



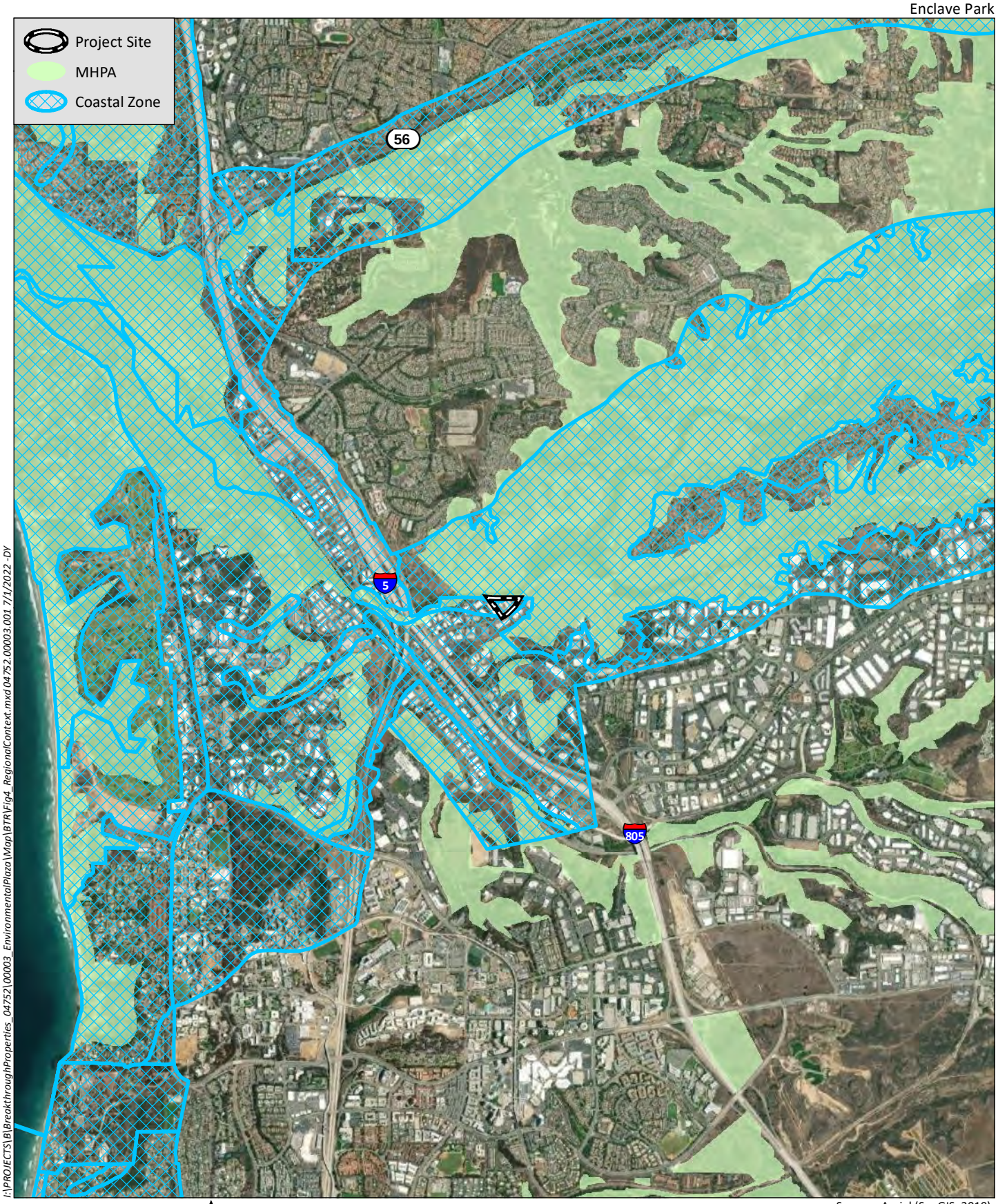
Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Aerial Photograph

Figure 3

Enclave Park



I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\BTR\Fig4_RegionalContext.mxd 04752.00003.001 7/1/2022 - DY

0 3,500 Feet

Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Regional Context

Figure 4

I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\BTR\Fig5_SitePlan.mxd 04752.00003.001 8/31/2023 -DY

0 150 Feet

Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Site Plan

Figure 5

incidentally observed or otherwise detected were mapped. Photographs of the site are included in Appendix A, *Representative Site Photographs*.

2.3 FOCUSED SPECIES SURVEYS

2.3.1 Arborist Survey

HELIX's International Society of Arboriculture Certified Arborist, Alexander Walsh (WE-12997A), completed the initial arborist survey of the project site and areas within 50 feet of the project site on June 28, 2022 (Table 1). A subsequent arborist survey was conducted on January 24, 2023, to document the native and non-native trees within the project site proposed for removal as a result of project implementation.

Each tree was located with sub-meter accuracy using a global positioning unit, and the following data was collected:

- Average tree canopy spread;
- Tree height;
- Tree trunk diameter at 54" above natural grade; Diameter at Breast Height; and
- Tree health and vigor.

2.4 JURISDICTIONAL ASSESSMENT

A preliminary assessment of potential water and wetland resources that may be regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted by Ms. Bellon concurrent with the general biological survey on January 11, 2022 (Table 1). Prior to conducting fieldwork, aerial photographs (1"=90' scale), topographic maps (1"=90' scale), and NWI maps were reviewed to assist in determining the presence or absence of potential jurisdictional areas within the study area. The purpose of the assessment was to identify and map water and wetland resources potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), 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 jurisdictional assessment was also conducted to determine the presence or absence of City Environmentally Sensitive Lands (ESL) wetlands and those meeting the single-parameter criteria for wetlands within the Coastal Overlay Zone. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation, were evaluated.

2.5 SURVEY LIMITATIONS

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

2.6 NOMENCLATURE

Nomenclature used in this report generally comes from the City's MSCP Subarea Plan (City 1997), Holland (1986) and Oberbauer (2008) for vegetation; Jepson eFlora (2022) for plants; Society for the Study of Amphibians and Reptiles (2022) for reptiles and amphibians; American Ornithological Society (2021) for birds; and Bradley et al. (2014) and Tremor et al. (2017) for mammals. Plant species status is from the CNPS' Rare Plant Inventory (CNPS 2022), CDFW (2022a), and City (2018). Animal species status is from the CDFW (2022b) and City (2018).

3.0 REGIONAL AND REGULATORY FRAMEWORK

Biological resources within the survey area are subject to regulatory administration by the federal government, the state of California, and the City.

3.1 FEDERAL GOVERNMENT

3.1.1 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) 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 that 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 the 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 the issuance of permits for incidental take of endangered or threatened species with the 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, with the exception of wetland species, covered by its adopted MSCP Subarea Plan.

3.1.2 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 the disturbance of active bird nests during the nesting season. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests. As a regulatory requirement, the project must comply with the regulations and guidelines of the MBTA.

3.1.3 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 waters of the U.S. At the time this report was prepared, the definition of jurisdictional waters of the U.S. is a broad meaning that includes special aquatic sites, such as wetlands. Waters of the U.S., 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 waters of the U.S., including their adjacent wetlands; (3) tributaries to navigable waters of the U.S., 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 waters of the U.S., 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 waters of the U.S. 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.

3.2 STATE OF CALIFORNIA

3.2.1 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.

3.2.2 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 the 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, with the exception of wetland species, covered by its adopted MSCP Subarea Plan pursuant to Section 2081.

3.2.3 California Coastal Act

The California Coastal Commission (CCC), through provisions of the California Coastal Act of 1976, is authorized to issue a CDP for projects located within the Coastal Zone. In areas where a local entity has a certified Local Coastal Program (LCP), the local entity can issue a CDP only if it is consistent with the LCP. The CCC, however, has appeal authority for portions of LCPs and retains jurisdiction over certain public trust lands and in areas without an LCP. The project site occurs in the Coastal Zone within the boundaries of the City's certified North City LCP Land Use Plan (Figure 4). Specifically, the project site occurs within the Torrey Pines community plan areas of the North City LCP.

The California Coastal Act defines "environmentally sensitive area" as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development." There are three important elements to the definition of an environmentally sensitive habitat area (ESHA). First, a geographic area can be designated ESHA either because of the presence of individual species of plants or animals or because of the presence of a particular habitat. Second, for an area to be designated as ESHA, the species or habitat must be either rare or it must be especially valuable. Finally, the area must be easily disturbed or degraded by human activities. ESHA shall include southern foredunes, Torrey Pine Forest, coastal bluff scrub, maritime succulent scrub, maritime chaparral, native grassland, oak woodlands, coastal sage scrub and coastal sage/communities, and any vegetation communities that support threatened or endangered species.

The California Coastal Act Section 30121 defines wetlands as lands within the coastal zone that may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. The CCC further established a "one parameter definition" that requires evidence of a single parameter to establish wetland conditions: "Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity, or high concentrations of salts or other substances in the substrate" (CCR Title 14, Section 13577). The CCC's regulations specify several general decision rules for establishing the upland boundary of wetlands as: (1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover; (2) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or (3) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not (CCC 2011).

3.2.4 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 the collection, transport, and commerce of listed plants. The CESA

follows 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 CESA.

3.2.5 California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Sections 1600 et seq. of the 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. As a regulatory requirement, the project must comply with the regulations and guidelines of the CFG Code.

3.2.6 Porter-Cologne Water Quality Control Act

The State Water Resources Control Board 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 the 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.

3.3 CITY OF SAN DIEGO

3.3.1 Environmentally Sensitive Lands

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

and 100-year floodplains as defined by the City 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.

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 2018). The ESL regulations also require that buffers be maintained around all wetlands (as appropriate) to protect their functions and values. Buffer widths may either be increased or decreased as determined on a case-by-case basis, taking into consideration the size and type of project proposed, the 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.

3.3.2 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 adequately conserved by the agreement (covered species). The MSCP designates regional preserves that are intended to be mostly void of development activities, while allowing the development of other areas subject to the requirements of the program. Impacts to biological resources are regulated by City ESL regulations.

The City's MSCP Subarea Plan (City 1997) 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. Indirect impacts to MHPA from adjacent development are addressed 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 from drainage, toxins, lighting, noise, barriers, non-native and invasive species, brush management, and grading to the sensitive resources contained therein. Projects within or adjacent to the MHPA must demonstrate compliance with the LUAGs.

The project site is adjacent to and partially within the MHPA. Consistency with the MSCP LUGAs is described in Section 6.2.

3.3.3 Local Coastal Program

In March 1981, the San Diego City Council adopted the North City LCP Land Use Plan, revised in May 1985, and revised again in March 1987, which was prepared to meet the requirement of the California Coastal Act of 1976. Development within the Coastal Zone boundaries is subject to the City's LCP, Section 126.0702 City's Municipal Code, and the California Coastal Act, and would be subject to a CDP. The City acts as the local permitting authority for the issuance of CDPs for projects within its Coastal Zone, with a few exceptions. There are areas of "deferred certification" where the state retains its permitting authority. All projects in the Coastal Zone would require review for consistency with the LCP and California Coastal Act prior to the issuance of a CDP. This would ensure that infrastructure projects

will be consistent with the LCP; individual components would require this review on a project-by-project basis to ensure that there would not be adverse impacts.

The project site is located within the Coastal Overlay Zone (Figure 4) and within the boundaries of the North City LCP Land Use Plan (City 2005), which further details supplemental coastal development policies. The project site is located within Special Flood Zone: AE, and a small portion of the northern boundary is a floodway. Potential wetlands occur within the study area but are not within the project boundary or impact area. Jurisdictional resources are subject to additional development policies under the City's LCP.

4.0 RESULTS

4.1 REGIONAL CONTEXT

The study area is generally located within the Central Coast ecological region of the City (San Diego Natural History Museum 2022). Mean annual precipitation is approximately 13 inches, and the mean annual temperature is approximately 62 degrees Fahrenheit. The frost-free season is 330 to 350 days.

The study area is situated in the community of Torrey Pines in an industrial light area. Surrounding land uses include Sorrento Valley Boulevard directly abutting the southeastern boundary of the site, commercial development to the south, east, and west, and open space areas to the north, including the Los Peñasquitos Canyon Preserve (Figure 3). I-5 and I-805 are located west of the study area (Figure 4).

4.2 DISTURBANCE

The entire project footprint is confined to existing developed areas of 4174, 4178, 4182, 4186, 4202, 4204, and 4206 Sorrento Valley Boulevard. Historical aerials of the site indicated that Commercial development of the site originally occurred sometime between 1966 and 1978, as shown on Figure 6, *Previous Site Development Map (1978 Aerial)* (HistoricalAerials.com, 2022).

4.3 TOPOGRAPHY AND SOILS

Soil mapping units within the study area consist of: Chino silt loam, saline, 0 to 2 percent slopes, and Tujunga sand, 0 to 5 percent slopes (USDA 2020; Figure 7, *Soils*). These mapped soil types underlie the developed portion of the study area. The developed portion of the study area is generally flat, with the terrain modified to serve the land use of the site, with the undeveloped areas to the north sloping down. The elevation within the study area ranges from approximately 30 feet to 50 feet above mean sea level.

4.4 VEGETATION COMMUNITIES

A total of three vegetation communities/land cover types were mapped within the study area (Figure 8, *Vegetation Communities and Sensitive Resources).* The numeric codes in parentheses following each vegetation community/land cover type name are from the City Land Development Code Biology Guidelines (City 2018), with further guidance from the Holland classification system (Holland 1986) and as expanded by Oberbauer (2008). The communities/habitat types by Tier within the project site are presented in Table 2, *Existing Vegetation Communities/Land Cover Types Within The Study Area*.

Table 2
EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES
WITHIN THE STUDY AREA

Vegetation Community/Land Cover Type[1]	Habitat Tier	Existing (acres)[2]		
		Outside MHPA	Within MHPA	Total
Wetland/Riparian Habitat				
Southern Riparian Forest (61300)	Wetland	--	1.83	1.83
Wetland/Riparian Subtotal		**--**	**1.83**	**1.83**
Upland Habitat				
Non-Native Vegetation (11000)	IV	--	<0.1	<0.1
Developed (12000)	IV	8.2	1.0	9.2
Upland Subtotal		**8.2**	**1.0**	**9.2**
Total		***8.2***	***2.83***	***11.03***

[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[2] Acreages rounded to the nearest 0.1 acre for upland communities. Totals reflect rounding.

Southern Riparian Forest

Southern riparian forest is composed of winter-deciduous trees that require water near the soil surface. Willow (*Salix* spp.), cottonwood (*Populus* sp.), and western sycamore (*Platanus racemosa*) form a dense, medium-height woodland or forest in moist canyons and drainage bottoms. Associated understory species include mule fat (*Baccharis salicifolia*) and stinging nettle (*Urtica dioica* ssp. *holosericea*). In forests, the canopies of individual tree species overlap, so a canopy cover exceeding 100 percent may occur in the upper tree stratum.

All 1.83 acres of southern riparian forest occur within the study area and within the MHPA, in association with Los Peñasquitos Creek (Figure 8).

Non-Native Vegetation

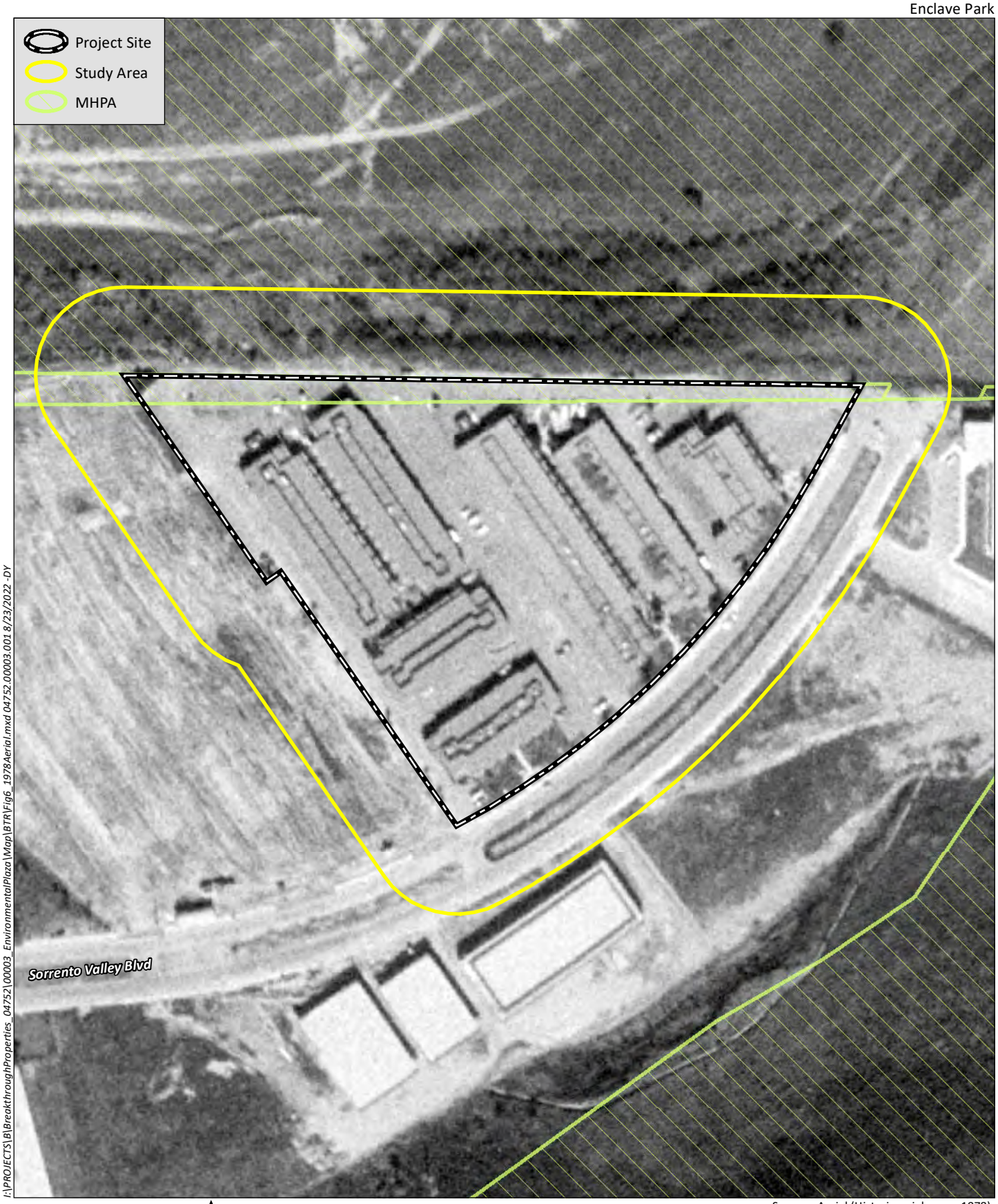
Non-native vegetation is a category describing stands of naturalized trees and shrubs, many of which are also used in landscaping. Within the study area, non-native vegetation consists of a small area dominated by ice plant (*Carpobrotus edulis*).

This community occurs in the northeastern portion of the study area (Figure 8). Less than 0.1 acre of non-native vegetation is located within the study area, all of which occurs inside of the MHPA.

Developed

Developed land occurs where permanent structures and/or pavement prevent the growth of vegetation, or where landscaping is clearly tended and maintained.

Developed land is the most prevalent land use within the study area, totaling 9.2 acres, including 1.0 acre that occurs within the MHPA. Developed land includes the existing development, its associated landscaping and parking lots, and the shoulder of Sorrento Valley Boulevard (Figure 8).



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Source: Aerial (Historicaerials.com, 1978).

HELIX Environmental Planning

Previous Site Development Map (1978 Aerial)

Figure 6

Enclave Park

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0 150 Feet

Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Soils

Figure 7

Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Vegetation Communities and Sensitive Resources

Figure 8

4.5 FLORA

A total of 30 plant species were documented during biological surveys for the project, of which six (20 percent) were native species and 24 (80 percent) were non-native species (Appendix B, *Plant Species Observed*).

The pines surveyed within, directly abutting, and adjacent to the project footprint were determined to be Aleppo pine (*Pinus halepensis*) and Canary Island pine (*Pinus canariensis*), neither of which are native to California. Aleppo pine is native to the Mediterranean region, while Canary Island pine is native to the Canary Islands. These species are escaped cultivars known to occur in landscape and ornamental settings. While known to occur in the area, no Torrey Pines (*Pinus torreyana* ssp. *torreyana*) were documented within the project site or within 50 feet adjacent to the site.

4.6 FAUNA

A total of 13 animal species were observed or detected during biological surveys for the project, including 11 bird and two butterfly species (Appendix C, *Animal Species Observed or Otherwise Detected*).

5.0 SENSITIVE BIOLOGICAL RESOURCES

5.1 SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities include 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 CEQA Guidelines.

Southern riparian forest is the only sensitive natural community present within the study area. This community occurs outside of the proposed project site.

5.2 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 endemics to a 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.

5.2.1 Special Status Plant Species Observed

No special status plant species were observed in the study area during the general biological or arborist surveys. A list of plant species observed is included as Appendix B.

5.2.2 Special Status Plant Species with High Potential to Occur

A total of 51 plant species were evaluated for their potential to occur within the study area. The conservation status, habitat, ecology and life history, and the potential to occur for each special status species are detailed in Appendix D, *Sensitive Plant Species With Potential to Occur*. One special status plant species was determined to have a high potential to occur within the study area: San Diego marsh elder (*Iva hayesiana*).

San Diego marsh elder has a CRPR of 2B.2. This is a conspicuous, perennial herb that is typically found in creeks or intermittent streambeds, where open canopy allows sunlight to reach the species. It is rarely observed at seeps near creeks. Sandy alluvial embankments with cobbles are frequently utilized. This species is found in San Diego County at elevations below 655 feet. This species has been documented throughout Los Peñasquitos Creek within 500 feet of the study area, and the southern riparian forest provides suitable habitat for this species.

5.3 SPECIAL STATUS ANIMAL SPECIES

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

5.3.1 Special Status Animal Species Observed or Otherwise Detected

No special status animal species were detected in the study area during biological surveys. A list of animal species observed is included as Appendix C.

5.3.2 Special Status Animal Species with High Potential to Occur

A total of 45 animal species were evaluated for their potential to occur within the study area. Special status animal species with the potential to occur within the study area are included in Appendix E, *Sensitive Animal Species Observed or With Potential Occur*. They are grouped into invertebrates and vertebrates (fish, amphibians, reptiles, birds, and mammals) and are alphabetized by scientific name.

Two federally listed species were determined to have a high potential to occur within the study area within Los Peñasquitos Creek: light-footed Ridgway's rail (federally and state endangered, federally fully protected, and MSCP covered species) and least Bell's vireo (federally and state endangered and MSCP covered species). Light-footed Ridgway's rail is a resident of coastal and freshwater marshes and lagoons, but has been detected within perennial rivers, including Los Peñasquitos Creek, in recent years. Least Bell's vireo breed in riparian habitat with a structurally diverse canopy and dense shrub coverage. This species is typically found in cottonwoods and willows with mule fat, oaks (*Quercus* spp.), and sycamores.

One additional special status species has a high potential to occur within the study area: Cooper's hawk (*Accipiter cooperii*; state watch list and MSCP covered species). Suitable nesting and foraging habitat for Copper's hawk occurs within the study area in the form of ornamental landscaping trees, the riparian habitat of Los Peñasquitos Creek, and more recently, suburban and urban areas.

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; however, three additional special status species have a moderate potential to occur within the riparian habitat of Los Peñasquitos Creek: northern harrier (*Circus cyaneus*), San Diego tiger whiptail (*Aspidoscelis tigris stejnegeri*), and western red bat (*Lasiurus blossevillii*). Northern harrier are typically found within marshes, meadows, grasslands, and agricultural areas; however, this species is also known to occur within dense riparian woodlands. San Diego tiger whiptail occur within coastal sage scrub, chaparral, riparian areas, woodlands, and rocky areas with sandy or gravelly substrates. Western red bat are commonly found in riparian woodlands and prefer to roost in heavily shaded trees with open understories.

Appendix F, *Explanation of Status Codes for Plant and Animal Species*, includes explanations of sensitivity codes.

5.4 JURISDICTIONAL WATERS AND WETLANDS

The northern portion of the study area includes a portion of Los Peñasquitos Creek, and the creek extends east and west of the study area. The creek supports southern riparian forest habitat that includes numerous large arroyo willow and western sycamore trees, as well as several other native and non-native wetland species. The southern riparian forest habitat would be considered wetland waters of the U.S. by the USACE, wetland waters of the State by RWQCB, vegetated streambed by CDFW, wetland ESL by the City, and wetlands by the CCC.

The City Biology Guidelines state that a wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. Furthermore, Section 320.4(b)(2) of the USACE General Regulatory Policies (33CFR 320- 330) lists criteria for consideration when evaluating wetland functions and values. These include wildlife habitat (spawning, nesting, rearing, and foraging), food chain productivity, water quality, ground water recharge, and areas for the protection from storm and floodwaters. Currently, no wetland buffer exists between the property development and Los Peñasquitos Creek; however, the City's Biology Guidelines require a minimum 100-foot buffer for projects located within the Coastal Overlay Zone to ensure the protection of functions and values of the adjacent wetland habitat. The project proposes a 100-foot buffer that would include vegetated areas, biofiltration basins, a pedestrian path, and a stormwater conveyance with a reinforced, vegetated spillway and maintenance access path (refer to Section 7.4 for additional details). The proposed soft pedestrian path within the wetland buffer is a permitted use in the coastal zone per Section 143.0130(e)(1) of the City's LCP. The proposed biofiltration basins, stormwater conveyance, a reinforced vegetated spillway, and maintenance access path within the wetland buffer is an improvement considered necessary to protect the adjacent wetlands and is a permitted use in the coastal zone per Section 143.0130(e)(4) of the City's LCP.

5.5 HABITAT CONNECTIVITY AND WILDLIFE CORRIDORS

Wildlife corridors connect otherwise isolated pieces of habitat and allow the 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 a 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.

A portion of a wildlife corridor and habitat linkage (Biological Core and Linkage Area [BCLA]) area bisects the majority of the study area (Figure 4). This BLCA area was broadly defined as part of the 1997 MSCP mapping, with the intent to define a regional corridor and linkage between Del Mar Mesa, Los Peñasquitos Canyon Preserve, and Carmel Mountain areas to the east, with the Torrey Pine State Reserve, Los Peñasquitos Lagoon, and coastal bluff habitat to the west. Much of the BCLA overlaps developed lands, including the study area. The developed portions of the study area do not contain native habitat that would support wildlife movement, but wildlife movement likely occurs in Los Peñasquitos Creek and Los Peñasquitos Canyon Preserve. The developed portion of the study area provides no value as a wildlife corridor.

6.0 MULTIPLE SPECIES CONSERVATION PROGRAM CONSISTENCY ANALYSIS

The following section details the project's consistency with the City's MSCP Subarea Plan applicable guidelines, management directives, and policies.

6.1 GENERAL PLANNING POLICIES AND DESIGN GUIDELINES – SECTION 1.4.2 OF THE MSCP

The MSCP establishes specific guidelines that limit activities that occur within the MHPA. In general, activities occurring within the MHPA must conform to these guidelines and, wherever feasible, should be located in the least sensitive areas. Utility lines (e.g., sewer, water, etc.), limited water facilities, and other essential public facilities in compliance with policies found in Section 1.4.2 of the City's MSCP Subarea Plan are considered conditionally compatible with the biological objectives of the MSCP and are thus allowed within the City's MHPA.

The project was designed to avoid and limit impacts to environmentally sensitive lands, including the MHPA, and sensitive biological resources; however, a small portion of the proposed project footprint along the northern project boundary will encroach into the MHPA (Figure 9, *Vegetation and Sensitive Resources/Impacts*). Impacts within the MHPA are required to implement a wetland buffer and prevent the discharge of toxins, chemicals, and other pollutants into Los Peñasquitos Creek and the MHPA; therefore, impacts within the MHPA cannot be avoided. A boundary line correction, as discussed below, will be required to ensure that the project is consistent with the MSCP.

6.1.1 Boundary Line Correction

The northern project boundary overlaps slightly with the current placement of the MHPA (Figure 8 and Figure 9). The City MSCP and MHPA were initially developed and adopted in 1997 to delineate core biological resource areas and corridors targeted for conservation (City 1997). The project boundary supports developed lands that are clearly within the project boundary and were entirely cleared and graded sometime between 1966 and 1978 during the initial property development, approximately 20 years prior to the adoption and implementation of the MHPA (Figure 6).

Source: Aerial (SanGIS, 2019).

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Vegetation and Sensitive Resources/Impacts

Figure 9

A boundary line correction would be implemented to remove the northern portion of the existing property that contains developed lands from the MHPA. Following the approval of the MHPA boundary line correction, the MHPA designation by the existing communities/habitat types within the project site would be revised as shown on Figure 10, *Vegetation Communities and Sensitive Resources Post-Boundary Line Correction*, and in Table 3, *MHPA Boundary Line Correction Vegetation Communities/Land Cover Types within the Project Site*.

Table 3
MHPA BOUNDARY LINE CORRECTION VEGETATION COMMUNITIES/
LAND COVER TYPES WITHIN THE PROJECT SITE

Vegetation Community/ Land Cover Type[1]	Habitat Tier	Pre-BLC (acres)[2]		Post-BLC (acres)[2]		Total (acres)[2]
		Outside MHPA	Within MHPA	Outside MHPA	Within MHPA	
Non-Native Vegetation (11000)	IV	--	<0.1	<0.1	--	<0.1
Developed (12000)	IV	4.9	0.4	5.4	--	5.4
	Total	***4.9***	***0.4***	***5.4***	***--***	***5.4***

1 Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).

2 Acreages rounded to the nearest 0.1 acre for upland communities and the nearest 0.01 for wetland communities. Totals reflect rounding.

Further justification for an MHPA boundary line correction ensuring the project's consistency with the MHPA is included in Appendix G, *Multi-habitat Planning Area Boundary Line Correction Supporting Documentation*.

6.2 LAND USE ADJACENCY GUIDELINES – SECTION 1.4.3 OF THE MSCP

The project site is located adjacent to the MHPA, and is, therefore, subject to Land Use Adjacency Guidelines designed to minimize the indirect impact to sensitive resources contained in the MHPA and thus maintain the value of the preserve. The following sources could cause indirect impacts to biological resources, including the MHPA: discharge of sediment or toxins, lighting, noise, fugitive dust, trash, human and vehicular incursion into sensitive habitats, and degradation of wetland and wetland buffer functions and values. These adjacency guidelines govern indirect impacts from the following sources:

6.2.1 Drainage

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

The project includes the creation of several biofiltration basins to capture stormwater runoff from the site and a stormwater conveyance to capture overflow stormwater during rain events for flood control. The stormwater conveyance would act as a transition zone from the upsized 36-inch stormwater pipe to the existing 21-inch stormwater pipe which outfalls into Los Peñasquitos Creek. The proposed project also includes the creation of a 100-foot wetland buffer. Appropriate best management practices (BMPs) would be utilized during construction and restoration to avoid impacts to Los Peñasquitos Creek. No

materials used in the construction of the project will be toxic, and all fueling, repair, and maintenance of construction equipment will take place outside of aquatic resources and the MHPA.

6.2.2 Toxins

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

The proposed project does not include land uses that would utilize chemicals or byproducts potentially toxic or harmful to wildlife, habitat, or water quality.

6.2.3 Lighting

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

The proposed project consists of new research buildings with exterior lights for safety. Exterior lighting will be designed to shield the MHPA and sensitive species from night lighting. Project construction is expected to occur during daylight hours. Should construction lighting be necessary, lighting would be directed away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

6.2.4 Noise

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

Construction noise from the proposed project has the potential to create a significant impact to raptors and other sensitive species known to occur in the area. Section 4.1 of the Noise Technical Report (HELIX 2023) addresses noise-related impacts to sensitive species within the adjacent MHPA and open space. Implementation of mitigation measures identified in Section 8.0 would reduce this potential impact to a less than significant level.

6.2.5 Barriers to Incursion

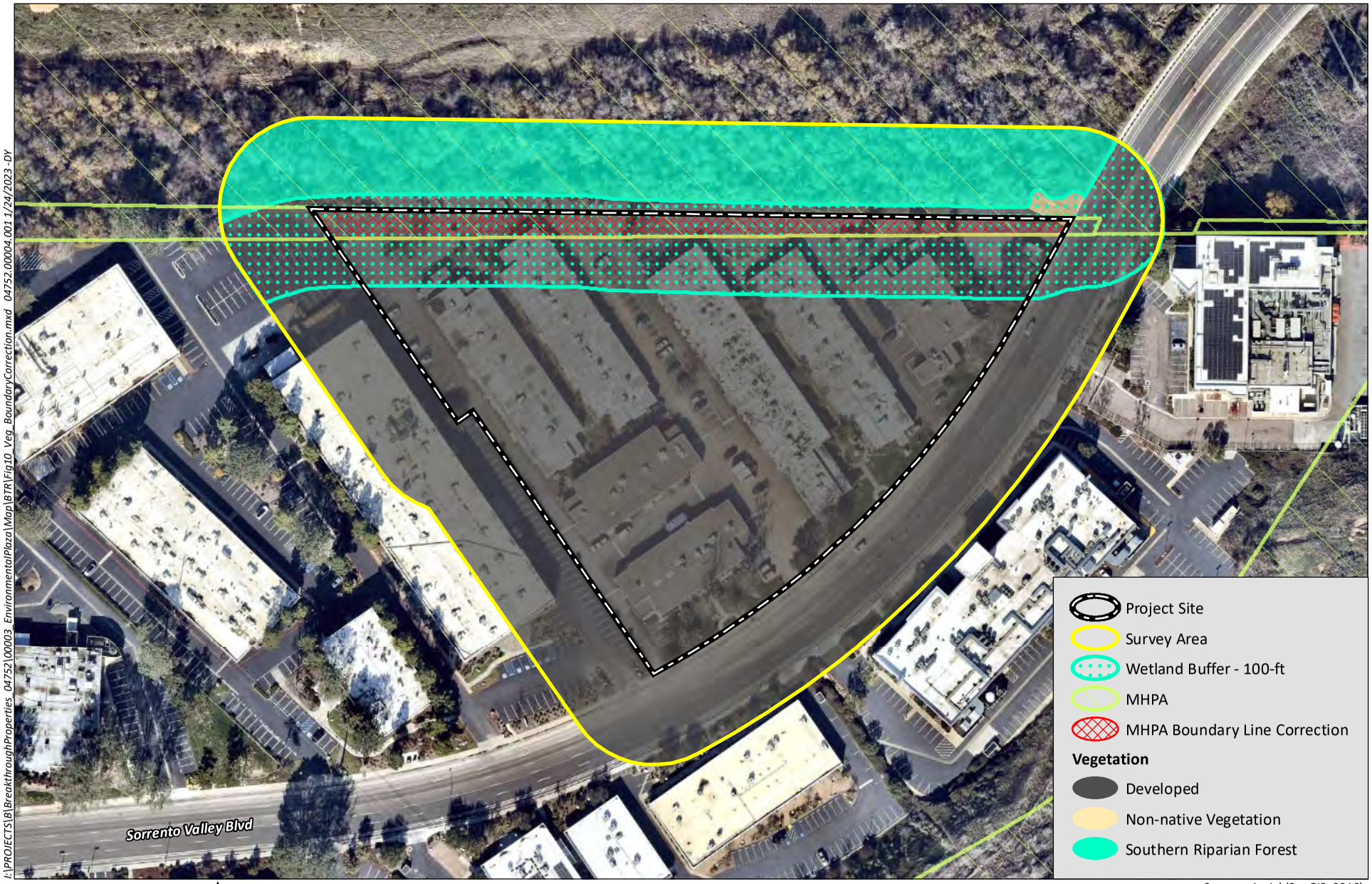
New development adjacent to the MHPA may be required to provide barriers to redirect public access to appropriate locations and reduce domestic animal predation in the canyon.

Barriers to incursions, such as fences, will be utilized along the northern boundary of the project to deter and redirect public access away from the MHPA. The proposed project is a research facility; therefore, domestic animal incursion and predation are not anticipated within MHPA.

6.2.6 Invasive Non-Native Species

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

Enclave Park



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0 150 Feet

Source: Aerial (SanGIS, 2019).

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Vegetation Communities and Sensitive Resources Post-Boundary Line Correction

Figure 10

All equipment shall be clean and free of debris and mud prior to entering the project site to reduce the potential for the introduction of invasive non-native plant species. Furthermore, no invasive non-native plant species will be included in the project landscaping.

6.2.7 Brush Management

New development located adjacent to and topographically above the MHPA must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the MHPA. Zone 2 may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required.

Portions of the proposed project where habitable premises are located within 100 feet of a structure and contain native or naturalized vegetation are subject to brush management. No brush management is required in locations where habitable premises are located more than 100 feet from native or naturalized vegetation as discussed in the City Brush Management Regulations (San Diego Municipal Code §142.0412). Due to the need for a 100-foot wetland buffer, all structures are at least 100 feet south of native or naturalized vegetation, and no brush management is required; however, the wetland buffer will be maintained consistent with Zone 2 requirements.

6.2.8 Grading/Land Development

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

All manufactured slopes associated with the project development will be included in the project footprint. No project-related grading or ground disturbance within the project footprint will occur until the MHPA BLC is approved. The project also includes the removal of asphalt within City-owned lands. No grading or slope manufacturing is proposed or anticipated as a result of the off-site asphalt removal; therefore, the asphalt removal would be consistent with LUAG and general management directives.

6.3 GENERAL MANAGEMENT DIRECTIVES – SECTION 1.5.2 OF THE MSCP

The following general management directives apply to the project, as outlined in Section 1.5.2 of the City's MSCP Subarea Plan (City 1997). The Program will comply with these general management directives as outlined below:

6.3.1 Litter/Trash and Materials Storage

- *Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA due to potential leakage.*

  The project would not produce litter, trash, or store hazardous materials in the MHPA. Equipment and materials required for construction would not be stored within the MHPA and would be removed following completion of construction. No fueling, repair, or maintenance will occur in or within 100 feet of the MHPA.

6.3.2 Invasive Non-Native Exotics Control and Removal

- *Do not introduce invasive non-native species into the MHPA.*

  Introduction of invasive non-native species into the MHPA is not expected to occur from the implementation of the project. The project has been designed to incorporate and adhere to the City LUAGs, as detailed above. Appropriate BMPs would be implemented during construction that would include measures to avoid the introduction of invasive non-native plants into the project area by equipment. No landscaping is proposed that would introduce invasive non-native species into the MHPA.

6.4 CONDITIONS OF COVERAGE FOR COVERED SPECIES

No MSCP-covered plant or animal species were observed within the project site. Furthermore, no MSCP narrow endemic plant species have a high potential to occur in the project vicinity; however, four MSCP-covered animal species were determined to have a high or moderate potential to occur within the project site: Cooper's hawk, light-footed Ridgway's rail, least Bell's vireo, and northern harrier. The MSCP includes conditions for coverage for these species, which are discussed below.

6.4.1 Cooper's Hawk

Cooper's hawk is determined to be adequately conserved under the MSCP because 59 percent of potential foraging and 52 percent of potential nesting habitat is being conserved, including the conservation of over 92 percent of the known populations (City 1997). The MSCP's conditions for coverage include 300-foot-wide impact avoidance areas around active nests and minimization of disturbance in oak woodlands and oak riparian forests.

The project would not impact oak woodlands or oak riparian forests, as neither community occurs within the project site. As discussed in Section 5.2.2, nesting Cooper's hawk have a high potential to occur on and within the vicinity of the project site; therefore, compliance with the conditions of coverage for Cooper's hawk would be a condition of project approval. Pre-construction nest surveys would be conducted as a standard condition for City projects, and, if nesting Cooper's hawk are detected, the 300-foot buffer would be established in accordance with the City's Biology Guidelines.

6.4.2 Light-Footed Ridgway's Rail

Light-footed Ridgway's rail is determined to be adequately conserved under the MSCP because 93 percent of potential habitat is being conserved (City 1997). The MSCP's conditions for coverage include the management of wetlands and specific measures to protect against edge effects.

The project would not impact wetland or suitable habitat for this species and will implement a 100-foot wetland buffer to protect the functions and values of the adjacent riparian corridor. With the implementation of the wetland buffer, the project would substantially reduce edge effects already present in the existing condition in the project area. The project would also implement mitigation measures described in the Mitigation Requirements (Section 8.0) to avoid impacts to the species during construction. The project would also be required to fence the limits of construction and conduct biological monitoring during construction as standard conditions for City projects, which will provide additional protections for the species.

6.4.3 Least Bell's Vireo

Least Bell's vireo is determined to be adequately conserved under the MSCP because 81 percent of potential habitat is being conserved (City 1997). The MSCP's conditions for coverage include specific measures to protect against edge effects, upland buffers for known populations, cowbird control, weed control, and specific requirements for clearing occupied habitat.

The project would not impact riparian or suitable habitat for this species and will implement a 100-foot wetland buffer to protect the functions and values of the adjacent riparian corridor once the project is constructed. With the implementation of the wetland buffer, the project would substantially reduce edge effects already present in the existing condition in the project area. The project would not result in conditions attractive to the brown-headed cowbird (*Molothrus ater*), a nest parasite of the least Bell's vireo, such as the creation of pastures with horses or cattle.

Construction activities adjacent to the MHPA cannot completely avoid the vireo breeding season; however, the Mitigation Requirements (Section 8.0) include mitigation measures (noise attenuation along the northern property boundary) to avoid construction noise impacts to least Bell's vireo. Least Bell's vireo have been documented to co-occur with the light-footed Ridgway's rail in the southern riparian forest habitat that occurs along the portion of Los Peñasquitos Creek adjacent to the project. There are multiple vireo locations along this portion of the creek, and the species has been documented over multiple years; therefore, the southern riparian forest habitat adjacent to the project is considered occupied for the purposes of this analysis. The project would also implement mitigation measures described in the Mitigation Requirements (Section 8.0) to avoid impacts to the species during construction.

6.4.4 Northern Harrier

Northern harrier is determined to be adequately conserved under the MSCP because 42 percent of potential nesting habitat and over 85,000 acres of potential foraging habitat are being conserved (City 1997). The MSCP's applicable conditions for coverage include 900-foot-wide impact avoidance areas around active nests and management of agricultural and disturbed lands within four miles of nesting habitat.

The project would not impact agricultural or disturbed lands, and none occur within the project study area. Compliance with the conditions of coverage for northern harrier would be a condition of project approval. Pre-construction nest surveys would be conducted as a standard condition for City projects, and if nesting northern harrier are detected, the 900-foot buffer would be established in accordance with the City's Biology Guidelines.

6.5 VERNAL POOL HABITAT CONSERVATION PLAN CONSISTENCY

In October 2009, the USFWS and the City entered into a Planning Agreement for the development of the City's Vernal Pool Habitat Conservation Plan (VPHCP), covering vernal pool habitats and associated species in the City (City 2019). 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 outlines the VPHCP management and monitoring strategy and how the City will implement it (City 2020). 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.

The proposed project is located outside of the VPHCP Preserve. Furthermore, no vernal pools or VPHCP-covered species occur within the project's study area. Soils mapped within the project's study area are sand and sandy loam, which are not suitable for the formation of vernal pools and seasonal ponds (Figure 4). The proposed project would not result in any impacts to vernal pools, VPHCP-covered species, or VPHCP preserve areas.

6.5.1 VPHCP Avoidance and Minimization Measures

The City's VPHCP (City 2019) 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 proposed project does not occur within or adjacent to VPHCP preserve areas or vernal pool resources; therefore, these measures are not applicable to the project.

7.0 ANALYSIS OF PROJECT IMPACTS

This section describes potential direct, indirect and cumulative impacts associated with the implementation of the project. Direct impacts immediately alter the affected biological resources, such as when those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including drainage and toxins (water quality), lighting, noise, and invasive non-native plant species.

7.1 CRITERIA FOR DETERMINING IMPACT SIGNIFICANCE

Appendix I of the 2018 City Biology Guidelines was used to determine the potential significance of impacts on biological resources pursuant to the City's Significance Determination Thresholds (City 2018). In addition to the Significance Thresholds provided in Appendix I, Initial Study Checklist questions were

also considered in the evaluation of impact significance. A project would result in a significant or potentially significant biological resources impact if it would result in the following:

- 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 an 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 non-native plant species into a natural open space area.

7.2 IMPACTS TO VEGETATION COMMUNITIES

The proposed project would result in impacts to less than 0.1 acre of non-native vegetation and 5.6 acres of developed area (Figure 9; Table 4, *Impacts to Vegetation Communities*). No impacts to sensitive vegetation communities are proposed; therefore, no mitigation is proposed. Approximately 0.2 acre of impacts to developed lands within MHPA are proposed as a condition of approval for property development. These proposed off-site improvements include the removal of existing asphalt on City-owned lands. While the area is located within MHPA, no sensitive upland or wetland vegetation occur within this off-site asphalt removal area. The off-site improvement area will be revegetated consistent with the City's Landscape Standards and subject to the 120 day plant establishment period and 25 month maintenance and monitoring requirements (City 2016). Revegetation will consist of native, non-invasive species compatible with the adjacent wetland buffer. The remaining 0.4 acre of developed lands and less than 0.1 acre of non-native vegetation within the MHPA will be removed from the MHPA following the MHPA BLC (Appendix G).

Table 4
IMPACTS TO VEGETATION COMMUNITIES

Vegetation Community/Land Cover Type	Habitat Tier	Existing (acre)[1]		Impacts (acre)[1]		Remaining (acre)[1]
		Outside MHPA	Within MHPA	Outside MHPA	Within MHPA	
Sensitive Wetland/Riparian Habitat						
Southern Riparian Forest (61300)	Wetland	--	1.83	--	--	1.83
Sensitive Wetland/Riparian Habitat Total		**--**	**1.83**	**--**	**--**	**--**
Non-sensitive Upland Habitat						
Non-Native Vegetation (11000)	IV	<0.1	<0.1	<0.1	--	<0.1
Developed (12000)[2]	VI	8.6	0.6	5.4	0.2	3.6
Non-Sensitive Upland Habitat Total		**8.6**	**0.6**	**5.4**	**0.2**	**3.6**
Total		***8.6***	***2.43***	***5.4***	***0.2***	***5.43***

[1] Existing acreage represent the study area. Acreages rounded to the nearest 0.1-acre; total reflects rounding.

7.3 IMPACTS TO SPECIAL STATUS SPECIES

The proposed project has been designed to occur within existing developed and disturbed areas associated with previous development and avoid impacts to sensitive biological resources. The proposed project has the potential to indirectly impact special status animal species with the potential to occur in the adjacent Los Peñasquitos Creek.

7.3.1 Special Status Plant Species

No special status plant species were observed during project surveys; however, San Diego marsh elder has a high potential to occur within the study area in Los Peñasquitos Creek.

7.3.1.1 San Diego Marsh Elder

As discussed in Section 5.2.2, San Diego marsh elder has been documented within the project vicinity in Los Peñasquitos Creek; however, the entire project site is developed, and no impacts to Los Peñasquitos Creek or the associated riparian habitat are proposed. Furthermore, San Diego marsh elder was not observed during project surveys. Impacts to this species would not occur, and no mitigation is required.

7.3.2 Special Status Animal Species

No special status animal species were detected within the project site during project surveys; however, the project could result in indirect impacts to special status animal species within sensitive wetland habitats adjacent to the project site. The six special status animal species with a moderate to high potential to occur immediately north of the project site within Los Peñasquitos Creek (light-footed Ridgway's rail, least Bell's vireo, San Diego tiger whiptail, Cooper's hawk, northern harrier, and western red bat) are discussed below.

7.3.2.1 Least Bell's Vireo

As discussed in Section 6.4, least Bell's vireo is known to occur in the portion of Los Peñasquitos Creek adjacent to the site. With the incorporation of the mitigation measures described in Section 8.0 for

noise attenuation, noise monitoring, and biological monitoring during construction, the project would avoid impacts to least Bell's vireo.

7.3.2.2 Light-footed Ridgway's Rail

As discussed in Section 6.4, light-footed Ridgway's rail is known to occur in the portion of Los Peñasquitos Creek adjacent to the site. With the incorporation of mitigation measures described in Section 8.0 for noise attenuation, noise monitoring, and biological monitoring during construction, the project would avoid impacts to light-footed Ridgway's rail.

7.3.2.3 Cooper's Hawk

The project has the potential to impact Cooper's hawk if there are active nests within or adjacent to the site. As described in Section 6.4, the project would be required to implement standard protection requirements for the species (pre-construction nest surveys and a 300-foot construction setback from any active Cooper's hawk nests). Therefore, no impacts to Cooper's hawk would occur, and no mitigation would be required.

7.3.2.4 Northern Harrier

The project has the potential to impact northern harrier if there are active nests within or adjacent to the site. As described in Section 6.4, the project would be required to implement standard protection requirements for the species (pre-construction nest surveys and a 900-foot construction setback from any active northern harrier nests). Therefore, no impacts to northern harrier would occur, and no mitigation would be required.

7.3.2.5 Other Non-MSCP-Covered Special Status Species

While suitable habitat for San Diego tiger whiptail and western red bat occurs within the study area, the project would not result in any impacts to suitable habitat for any of these species. Therefore, the project would not result in impacts to these species, and no mitigation would be required.

7.4 IMPACTS TO JURISDICTIONAL RESOURCES

The proposed project would replace an existing commercial development with a research facility. No jurisdictional resources occur within the project site. Currently, no wetland buffer exists between the property development and Los Peñasquitos Creek, and untreated stormwater is allowed to flow directly into the creek and associated riparian habitat. The existing site conditions provide little to no functions and values as a buffer because the site is currently entirely developed, consisting of paved asphalt directly abutting and draining directly into Los Peñasquitos Creek. Per the City's Biology Guidelines, wetland buffers should be provided at a minimum of 100 feet wide adjacent to all identified wetlands within the Coastal Overlay Zone (Section 143.0141(b)). In accordance with the City Land Development Code Biology Guidelines for projects within the Coastal Overlay Zone, the project would remove existing asphalt and development and implement a 100-foot wetland buffer along the northern boundary of the property to ensure the functions and values of the adjacent Los Peñasquitos Creek, a water and wetland resource. As part of the wetland buffer, the project proposes the installation of a soft pedestrian path within the wetland buffer, which is considered a permitted use per Section 143.0130(e)(1) of the City's LCP.

In addition, storm water biofiltration basins and a stormwater conveyance are proposed within the wetland buffer. Biofiltration basins would consist of lined and vegetated depressions that would be elevated above the 100 year flood elevation to prevent floodwater from entering the basins and allowing the untreated stormwater from leaving the basins. Biofiltration basins would provide additional measures to prevent untreated storm water runoff from entering Los Peñasquitos Creek and the associated wetland habitat where no treatment or diversion currently exists. Untreated stormwater, toxins, contaminants, and sediment would be captured within the biofiltration basins before treated water would be allowed to exit to Los Peñasquitos Creek. The existing 21-inch stormwater pipe that conveys stormwater from Sorrento Valley Boulevard to Los Peñasquitos Creek is severely undersized, causing regular flooding on the street.

As a condition of project approval, the City is requiring the upsizing of the pipe to 36 inches to handle increased flows. The stormwater conveyance would act as flood control and a transition zone between the upsized 36-inch stormwater pipe to the existing 21-inch stormwater pipe that currently outfalls into Los Peñasquitos Creek. Furthermore, the stormwater conveyance would be vegetated and maintained consistent with the wetland buffer requirements. In situations where the capacity of the existing 21-inch pipe is exceeded, stormwater would backup into the stormwater conveyance, and be allowed to sheet flow across the vegetated spillway along the northern edge of the basin and into Los Peñasquitos Creek. Turf reinforcement mats would be installed and vegetated within spillway area for soil stabilization and erosion control. Additionally, a vegetated, reinforced access path would be installed on the eastern side of the stormwater conveyance for maintenance purposes. The stormwater conveyance and turf reinforcement mats would provide enhanced stormwater management, erosion control, and bank stabilization where none currently exists. Erosion and sediment transport from unanticipated bank overflow and concentrated flows would be reduced with the implementation of the stormwater conveyance and spillway.

The biofiltration basins and stormwater conveyance are considered an additional improvement necessary to protect the adjacent wetlands associated with Los Peñasquitos Creek, which would be a permitted use per Section 143.0130(e)(4) of the City's LCP. The biofiltration basins and stormwater conveyance would be inspected and maintained annually; however, the actual maintenance needs may vary based on the need, and the basins may be maintained more frequently than annually. Maintenance activities within the biofiltration basins and stormwater conveyance would include, but are not limited to, vegetation trimming and/or removal, mowing, removal of debris and trash, and replacement of mulch. Maintenance in perpetuity will be assured with a Stormwater Management and Discharge Control Maintenance Agreement recorded against the property. Implementation of the 100-foot wetland buffer would serve to protect the existing jurisdictional resources and improve the functions and values of the resources.

As previously mentioned, stormwater from the existing development currently drains directly into Los Peñasquitos Creek without treatment. The proposed project would implement several biofiltration basins for stormwater treatment prior to outlet into existing stormwater swales and pipes. Biofiltration basins would conform with current stormwater standards and would greatly improve the water quality of Los Peñasquitos Creek adjacent to and downstream of the project site. The stormwater conveyance and spillway would reduce erosion and sediment transport, also improving the water quality of Los Peñasquitos Creek adjacent to and downstream of the project site. The proposed project would not have any direct or indirect effect on any wetland or jurisdictional aquatic habitat.

7.5 WILDLIFE MOVEMENT AND NURSERY SITES

Although the site is developed, most of the project is located within an MSCP Core Linkage Area that was broadly defined in 1997 as part of the MSCP. Wildlife habitat within the corridor/linkage is found north of the project site within Los Peñasquitos Creek. The project does not propose impacts to native habitat or areas suitable for wildlife movement or breeding. The project would not sever connectivity between any blocks of contiguous habitat and 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 City's MSCP Subarea Plan; and would not impede the use of native wildlife nursery sites. Furthermore, the implementation of barriers (i.e., fences and walls) would not hinder wildlife movement within and adjacent to the site. During construction, noise and disturbance from equipment may temporarily result in wildlife avoiding native habitats directly adjacent to the footprint; however, there is substantial native habitat to the east of the site, and project construction would not interfere with the overall use of the movement corridor. Therefore, project impacts to wildlife movement and nursery sites would be considered less than significant.

7.6 CONFLICT WITH THE LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLANS

The project has been specifically designed to minimize impacts to biological resources addressed in the City's MSCP Subarea Plan (1997) and Land Development Code (2018). Implementation of mitigation measures described in Section 8.0 would ensure project consistency with the MSCP, and that impacts to species and ESL are avoided in accordance with Land Development Code requirements, as detailed in Section 6.0 above. The project would not conflict with the local, regional, or state conservation plans.

7.7 ADVERSE EDGE EFFECTS ON THE MHPA

The project is subject to City Land Use Adjacency Guidelines designed to minimize indirect impacts to sensitive resources contained in the MHPA and thus maintain the value of the preserve as described in Section 6.2 above. Project impacts would occur in a small section of the MHPA along the northern edge of the project area; however, an MHPA boundary line correction justification is provided in Appendix G. No changes to existing land use designations are anticipated through project implementation. In accordance with the Land Use Adjacency Guidelines, the implementation of construction BMPs and mitigation measures described in Section 8.0 will help ensure project consistency with the Land Use Adjacency Guidelines. In addition, MHPA LUAGs would be made conditions of the project to help ensure the project did not result in significant edge effects on the MHPA. The project would not result in significant edge effects on the MHPA.

7.8 CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES

The project site is located outside but adjacent to southern riparian forest. Southern riparian forest has the potential to support two federally listed animal species, least Bell's vireo and light-footed Ridgway's rail, and four additional special status species, San Diego tiger whiptail, Cooper's hawk, northern harrier, and western red bat. Southern riparian forest would be categorized as ESHA, as described in Section 3.2.3, and is considered a sensitive habitat easily disturbed/degraded by human activities.

As described in Table 4, the project would not result in impacts to southern riparian forest or ESHA habitat. The project will not conflict with the North City LCP because no impacts to ESHA are proposed, and the project incorporates a 100-foot wetland buffer. The project would not conflict with any of the LCP Specific Language in the Torrey Pines Community Plan Addendum related to ESHA (City 2014).

7.9 INVASIVE NON-NATIVE PLANT SPECIES

As described in Section 6.2.6 above, all equipment shall be clean and free of debris and mud prior to entering the project site to reduce the potential for the introduction of invasive non-native plant species, and no invasive non-native plant species will be included in the project landscaping. The project would not result in the introduction or spread of invasive non-native plant species within the conserved area.

7.10 CUMULATIVE IMPACTS

Adverse cumulative impacts are not expected from the implementation of the proposed project. Projects that adhere to the City's MSCP Subarea Plan (City 1997) 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, Biology Guidelines (City 2018), and ESL Regulations; therefore, the project would not result in significant cumulative impacts.

8.0 MITIGATION REQUIREMENTS

The following mitigation measures shall be implemented to reduce potentially significant impacts resulting from project implementation to below a level of significance.

8.1 MITIGATION FOR IMPACTS TO SPECIAL STATUS SPECIES

8.1.1 Mitigation for Impacts to Special Status Animal Species

The project is not expected to result in direct impacts to special status animal species. To avoid indirect impacts to the light-footed Ridgway's rail (*Rallus obsoletus levipes*; federally endangered, state endangered, and a state of California Fully Protected species) and the least Bell's vireo (*Vireo bellii pusillus*; federally endangered and state endangered), the following mitigation measures will be implemented as part of the project:

8.1.1.1 Least Bell's Vireo Avoidance and Mitigation

Prior to the issuance of any grading permit, Notice to Proceed, or Pre-construction meeting, the City Manager (or appointed designee) shall verify that the following Project requirements regarding the least Bell's vireo are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur between March 15 and September 15, the breeding season of the least Bell's vireo, 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 wetland areas that would be subject to construction noise levels exceeding 60 dB(A) hourly average for the presence of the least Bell's vireo. Surveys for this species 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 construction. If the least Bell's vireo is present, the following conditions must be met:

I. Between March 15 and September 15, no clearing, grubbing, or grading of occupied least Bell's vireo habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

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

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

*Note: 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 60dB (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 least Bell's vireo are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City Manager and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:

I. If this evidence indicates the potential is high for Least Bell's vireo to be present based on historical records or site conditions, then condition A.III shall be adhered to.

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

8.1.1.2 Light-Footed Ridgway's Rail Avoidance and Mitigation

Prior to the issuance of any grading permit, Notice to Proceed, or Pre-construction meeting, the City Deputy Director (or appointed designee) shall verify that the MHPA boundaries and the following Project requirements regarding the light-footed Ridgway's rail are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur between March 1 and August 15, the breeding season of the light-footed Ridgway's rail, 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 suitable habitat that would be subject to construction noise levels exceeding 60 dB(A) hourly average for the presence of the light-footed Ridgway's rail. Surveys for the light-footed Ridgway's rail 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 rails are present, then the following conditions must be met:

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

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

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

*Note: 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 60dB (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 representative, 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 light-footed Ridgway's rails are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City Manager and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 and August 15 as follows:

I. If this evidence indicates the potential is high for light-footed Ridgway's rail to be present based on historical records or site conditions, then condition a.iii shall be adhered to as specified above.

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

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Appendix A

Representative Site Photographs

Northern property boundary from the northwest corner (looking east).

Northern property boundary from the north center (looking west).

Los Peñasquitos Creek immediately north of the property boundary (looking northeast).

Non-native vegetation in the northeast corner of the study area (looking northwest).

Southern property boundary from the south center (looking northeast).

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Appendix B

Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Aizoaceae	*Carpobrotus edulis**	iceplant	NNV
Amaryllidaceae	*Amaryllis belladonna**	belladonna lily	DEV
Anacardiaceae	*Schinus molle**	Peruvian pepper tree	DEV
	*Schinus terebinthifolius**	Brazilian pepper tree	DEV
Apiaceae	*Conium maculatum**	poison hemlock	DEV
Araliaceae	*Hedera helix**	English ivy	DEV
Arecaceae	*Phoenix canariensis**	Canary island date palm	SRF
Asteraceae	*Baccharis pilularis*	coyote brush	DEV
	Baccharis salicifolia	mulefat	SRF
	Baccharis sarothroides	broom baccharis	DEV
	*Sonchus oleraceus**	sow thistle	DEV, SRF
Brassicaceae	*Brassica nigra**	black mustard	DEV, NNV
Cupressaceae	*Juniperus chinensis**	Chinese juniper	DEV
Cyperaceae	*Cyperus involucratus**	umbrella plant	SRF
Euphorbiaceae	*Euphorbia* sp.	spurge	SRF
Fabaceae	*Medicago polymorpha**	California burclover	DEV, SRF
	Acacia sp.*	acacia	DEV
Hamamelidaceae	*Liquidambar styraciflua**	American sweetgum	DEV
Iridaceae	*Iris* sp.*	iris	DEV
Moraceae	*Ficus spp.**	ficus	DEV
Myrtaceae	*Callistemon citrinus**	crimson bottlebrush	DEV
	*Eucalyptus spp.**	eucalyptus	DEV
Pinaceae	*Pinus canariensis**	Canary island pine	DEV
	*Pinus halepensis**	Aleppo pine	DEV
Platanaceae	*Platanus racemosa*	western sycamore	SRF
Salicaceae	*Salix lasiolepis*	arroyo willow	SRF
Saururaceae	*Anemopsis californica*	yerba mansa	SRF
Typhaceae	*Typha angustifolia**	narrow leaf cattail	SRF
Poaceae	*Bromus diandrus**	ripgut brome	DEV, SRF
	*Pennisetum setaceum**	fountain grass	DEV, SRF

† Special Status Species

* Non-native Species

[1] DEV = Developed; NNV=Non-Native Vegetation; SRF=Southern Riparian Forest

Appendix C

Animal Species Observed or Otherwise Detected

Taxon		Scientific Name	Common Name
Order	**Family**		
INVERTEBRATES			
Lepidoptera	Papilionidae	*Papilio rutulus*	western tiger swallowtail
	Pieridae	*Pieris rapae*	cabbage white
VERTEBRATES			
Birds			
Apodiformes	Trochilidae	*Calypte anna*	Anna's Hummingbird
Columbiformes	Columbidae	*Zenaida macroura*	mourning dove
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Fringillidae	*Haemorhous mexicanus*	House Finch
		Spinus psaltria	Lesser Goldfinch
	Mimidae	*Mimus polyglottos*	northern mockingbird
	Passerellidae	*Melospiza melodia*	Song Sparrow
		Melozone crissalis	California towhee
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Tyrannidae	*Tyrannus vociferans*	Cassin’s kingbird
Piciformes	Picidae	*Melanerpes formicivorus*	acorn woodpecker

Appendix D

Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Acanthomintha ilicifolia	San Diego thorn mint	FT/SE, CNPS Rank 1B.1, MSCP Covered, MSCP 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 3150 feet (960 meters).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area is entirely developed and lacks suitable clay soils needed to support this species.
Acmispon prostratus	Nuttall's acmispon	--/--, CNPS Rank 1B.1, MSCP Covered	Annual herb. Found in the coastal regions of southern California and Baja California. Habitats include coastal dunes, coastal scrub with sandy soils, and disturbed areas. Flowering Period: March to June. Elevation: below 33 feet (100 meters).	**Not Likely to Occur.** No suitable coastal habitat is present within the study area. The study area is located outside of the known elevation range for this species.
Adolphia californica	California adolphia	--/--, CNPS Rank 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 Potential to Occur.** Although this species has been reported within three miles of the study area, the project site is entirely developed and lacks suitable clay soils needed to support this species.
Agave shawii var. *shawii*	Shaw's agave	--/--, CNPS Rank 2B.1 MSCP 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).	**Not Likely to Occur.** No Suitable coastal bluff habitat occurs within the study area. Furthermore, this is conspicuous perennial species and was not observed during project surveys.
Aphanisma blitoides	aphanisma	--/--, CNPS Rank 1B.2, MSCP Covered, MSCP 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).	**Not Likely to Occur.** No suitable sage scrub habitat occurs within or adjacent to the study area.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/--, CNPS Rank 1B.1	Perennial shrub. Found within Relatively open, coastal chaparral. At occasional inland sites it occurs in denser mixed chaparral vegetation. Elevation: below 1,200 feet. Flowering Period: December to June.	**Not Likely to Occur.** No suitable coastal chaparral habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Artemisia palmeri	San Diego sagewort	--/--, CNPS Rank 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 Potential to Occur.** Suitable sandy, mesic habitat is present within the study area; however, the entire project site is developed. This conspicuous perennial species was not observed during project surveys.
Astragalus tener var. *titi*	coastal dunes milk vetch	FE/SE, CNPS Rank 1B.1, MSCP Covered, MSCP 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).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area lacks suitable micro-habitats, such as moist sandy depressions, needed to support this species. The study area is located outside of the known elevation range for this species.
Atriplex pacifica	south coast saltscale	--/--, CNPS Rank 1B.2	Annual herb. Found coastally on dunes and within playas in alkali sinks, sage scrub and wetland riparian communities. Flowering period: March to October. Elevation: below 984 feet (300 meters).	**Not Likely to Occur.** The study area lacks suitable micro-habitats, such as alkali or wetland habitat needed to support this species.
Baccharis vanessae	Encinitas baccharis	FT/SE, CNPS Rank 1B.1, MSCP Covered, MSCP 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Bahiopsis laciniata	San Diego county viguiera	--/--, CNPS Rank 4.2	Medium shrub. Occurs in coastal sage scrub, often at high density. Elevation range 295-2,460 ft. Flowering period Feb – Aug. but identifiable year-round by leaves.	**Not Likely to Occur.** No suitable coastal scrub habitat occurs within the study area and the study area is located outside of the typical range for this species. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Bergerocactus emoryi	golden spined cereus	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Bloomeria clevelandii	San Diego goldenstar	--/--, CNPS Rank 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).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area is entirely developed and lacks suitable clay soils needed to support this species. The study area is also located outside of the typical elevation range for this species.
Brodiaea orcuttii	Orcutt's brodiaea	--/--, CNPS Rank 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).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area is entirely developed and lacks the mesic or clay soils typically needed to support this species. The study area is also located outside of the typical elevation range for this species.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Ceanothus cyaneus	Lakeside ceanothus	--/--, CNPS Rank 1B.2, MSCP Covered	Perennial shrub. Occurs on slopes and ridgelines in closed cone coniferous forest and chaparral. Flowering period: April to June. Elevation: 770 to 2,540 feet (235 to 755 meters).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys. The study area is also located outside of the typical elevation range for this species.
Ceanothus verrucosus	wart stemmed ceanothus	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's yellow chaenactis	--/--, CNPS Rank 1B.1	Annual herb. Found on coastal dunes and sandy coastal bluff scrub. Typically, in proximity to moist ocean breezes. Elevation: below 328 feet (100 meters). Flowering Period: January to August.	**Not Likely to Occur.** No suitable coastal bluffs habitat is present within the study area.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE, CNPS Rank 1B.1	Annual herb. Found in sandy openings of coastal sage scrub, chaparral, and coniferous forests. Known from only three occurrences in Encinitas, La Jolla, and Point Loma. Flowering period: March to May. Elevation: below 410 feet (125 meters).	**Not Likely to Occur.** Suitable sandy soils is present; however, the entire project is developed and does not support suitable habitat.
Chorizanthe polygonoides var. *longispina*	long spined spineflower	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. The study area is also located outside of the typical elevation range for this species.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Comarostaphylis diversifolia ssp. *diversifolia*	California comarostaphylis	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys. The study area is also located outside of the typical elevation range for this species.
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	--/--, CNPS Rank 1B.1	Perennial herb. Found on sandy soils and disturbed areas within southern maritime chaparral, coastal sage scrub, and coastal bluffs. Flowering Period: May to September. Elevation: below 492 feet (150 meters).	**Low Potential to Occur.** Suitable sandy soil within the study area; however, the site is entirely developed and no suitable habitat occurs.
Cylindropuntia californica var. *californica*	snake cholla	--/--, CNPS Rank 1B.1	Perennial herb (stem succulent). Occurs within coastal sage scrub and coastal chaparral communities. Flowering period: April to July. Elevation: below 820 feet (250 meters).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Dudleya brevifolia	Short-leaved dudleya	--/SE, CNPS Rank 1B.1 MSCP NE	Perennial herb succulent. Occurs in open areas and sandstone bluffs of coastal scrub, chaparral, or Torrey pine forest. Flowering Period: April to May. Elevation: 98 to 820 feet (30 to 250 meters).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys. The study area is also located outside of the typical elevation range for this species.
Dudleya variegata	variegated dudleya	--/--, CNPS Rank 1B.2, MSCP Covered, MSCP 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).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area is entirely developed and lacks suitable clays soils typically needed to support this species.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Dudleya viscida	sticky dudleya	--/--, CNPS Rank 1B.2, MSCP Covered	Perennial herb. Occurs in rocky areas within coastal bluffs, coastal sage scrub, chaparral, and woodlands. Grows primarily on very steep north-facing slopes. Elevations below 1,800 feet. Flowers May to June.	**Not Likely to Occur.** The site lacks steep north facing slopes where this species is typically observed and no suitable habitats occur within the study area.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	--/--, CNPS Rank 1B.1	Perennial Shrub. Found in mesic areas within coastal sage scrub and chaparral. Flowering period: September to November. Elevation: below 1,968 feet (600 meters).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Eryngium aristulatum var. *parishii*	San Diego button celery	FE/SE, CNPS Rank 1B.1 MSCP NE	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).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area lacks vernal pools typically needed to support this species.
Erysimum ammophilum	coast wallflower	--/--, CNPS Rank 1B.2, MSCP Covered	Perennial herb. Found in open areas and sandy soils within coastal dunes, coastal strand, coastal sage scrub, and maritime chaparral. Flowering Period: February to June Elevation: below 197 feet (60 meters).	**Not Likely to Occur**. Suitable coastal habitat for this species does not occur within the study area.
Euphorbia misera	cliff spurge	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat or rocky areas occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Ferocactus viridescens	San Diego barrel cactus	--/--, CNPS Rank 2B.1, MSCP Covered	Perennial (stem succulent) shrub. Grows in sandy to rocky areas within chaparral, valley grassland and coastal sage scrub communities. Flowering period: May to June. Elevation: 33 to 492 feet (10 to 150 meters).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Geothallus tuberosus	Campbell's liverwort	--/--, CNPS Rank 1B.1	Ephemeral liverwort. Occurs on mesic soil, in coastal scrub and vernal pools. Elevation: 30 to 1,970 feet (9 to 600 meters).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the study area lacks vernal pools needed to support this species.
Harpagonella palmeri	Palmer's grapplinghook	--/--, CNPS Rank 4.2	Annual herb. Found in annual grasslands, chaparral, and coastal sage scrub. Flowering Period: March to May. Elevation: below 5,445 feet (below 1,660 meters).	**Not Likely to Occur.** The study area is entirely developed and lacks suitable habitats needed to support this species.
Heterotheca sessiliflora ssp. *sessiliflora*	false goldenaster	--/--, CNPS Rank 1B.1	Perennial herb. Occurs in coastal chaparral, coastal dunes, and coastal scrub. Flowering Period: March to December. Elevation: below 4,020 feet (1226 meters).	**Not Likely to Occur.** No suitable bluff habitat occurs within the study area This conspicuous species was not observed during project surveys.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Iva hayesiana	San Diego marsh elder	--/--, CNPS Rank 2B.2	Perennial herb. Found in alkaline flats, depressions, and streambanks within wetland communities. Flowering period: April to October. Elevation: below 655 feet (below 200 meters).	**High Potential to Occur.** Suitable streambank habitat occurs north of the project site within the study area; however, the project site is entirely developed and lacks suitable wetland conditions needed to support this species.
Juncus acutus ssp. *leopoldii*	wire grass	--/--, CNPS Rank 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).	**Not Likely to Occur.** The study area lacks suitable wetland conditions needed to support this species

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Lasthenia glabrata ssp. *coulteri*	goldfields	--/--, CNPS Rank 1B.1	Annual herb. Grows in vernal pools, playas, and saline habitats within alkali sinks, coastal salt marshes, and wetland communities. Flowering period: April to May. Elevation: below 3,281 feet (1,000 meters).	**Not Likely to Occur.** The study area lacks suitable vernal pool habitat needed to support this species.
Lepidium virginicum var. *robinsonii*	Robinson's pepper grass	--/--, CNPS Rank 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).	**Not Likely to Occur.** The study area lacks suitable open, dry chaparral habitat.
Leptosyne maritima	sea dahlia	--/--, CNPS Rank 2B.2	Perennial herb. Occurs within coastal scrub and coastal bluffs scrub. Flowering period: March to May. Elevation: below 500 feet (150 meters).	**Not Likely to Occur.** No suitable coastal scrub or bluff scrub habitat occurs within the study area.
Monardella viminea	willowy monardella	FE/SE, CNPS Rank 1B.1	Perennial herb. Occurs in riparian scrub, usually at sandy locales in seasonally dry washes. Generally, occurs where no canopy cover, and river cobbles may lie in close proximity. Elevation below 1,312 ft. Flowering period Jun – Aug.	**Low Potential to Occur.** Suitable riparian scrub occurs north of the study area; however, the site is entirely developed and lacks suitable wetland conditions needed to support this species.
Navarretia fossalis	spreading navarretia	FT/--, CNPS Rank 1B.1, MSCP Covered, MSCP NE	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).	**Not Likely to Occur.** The study area lacks suitable vernal pool habitat needed to support this species. Furthermore, the project is located outside of the known elevation range for this species

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Nemacaulis denudata var. *denudata*	coast woolly heads	--/--, CNPS Rank 1B.2	Annual herb. Occurs within coastal dunes. The back dunes in mildly protected areas seem to be preferred. Flowering Period: April to September. Elevation: below 330 feet (100 meters)	**Not Likely to Occur.** No suitable bluff or dune habitat occurs within the study area.
Orcuttia californica	California orcutt grass	FE/SE, CNPS Rank 1B.1, MSCP Covered, MSCP NE	Annual herb. Occurs in vernal pools. This species tends to grow in wetter portions of the vernal pool basins but does not show much growth until the basins become somewhat desiccated. Flowering period: April to August. Elevation: 49 to 2,165 feet (15 to 660 meters).	**Not Likely to Occur.** The study area lacks suitable vernal pool habitat needed to support this species.
Orobanche parishii ssp. *brachyloba*	short lobed broom rape	--/--, CNPS Rank 4.2	Perennial parasitic herb found on sandy soils within coastal bluff, dune, and scrub habitat. Flowering period: April - October. Elevation: 10 to 1,000 feet (3 – 305 meters).	**Not Likely to Occur.** No suitable bluff or dune habitat occurs within the study area.
Pentachaeta aurea ssp. *aurea*	golden chaetopappa	--/--, CNPS Rank 4.2	Annual herb. Occurs in grassy areas within coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. Flowering period: March to July. Elevation: 260 to 6,100 feet (80 and 1,850 meters).	**Low Potential to Occur.** Suitable riparian scrub occurs north of the study area; however, the site is entirely developed and lacks suitable wetland conditions needed to support this species.
Phacelia stellaris	Brand's phacelia	--/--, CNPS Rank 1B.1	Annual herb. Occurs in sandy openings within coastal dunes and coastal scrub. Flowering Period: March to June. Elevation: below 1,315 feet (400 meters).	**Not Likely to Occur.** The study area lacks suitable coastal scrub or dune habitat needed to support this species.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Pinus torreyana ssp. *torreyana*	Torrey pine	--/--, CNPS Rank 1B.2, MSCP Covered	Perennial evergreen tree. Occurs within closed cone coniferous forest and chaparral atop sandstone soils. Elevation: 98 and 430 feet (30 to 131 meters).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the site is entirely developed. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Pogogyne abramsii	San Diego mesa mint	FE/SE, CNPS Rank 1B.1, MSCP Covered, MSCP NE	Annual herb. Occurs within vernal pools. Flowering period: March to July. Elevation: 295 and 660 feet (90 to 200 meters).	**Not Likely to Occur.** Although this species has been reported within three miles of the study area, the site lacks suitable vernal pool habitat needed to support this species.
Quercus dumosa	Nuttall's scrub oak	--/--, CNPS Rank 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).	**Not Likely to Occur.** No suitable habitat occurs within the study area. Furthermore, this is a conspicuous perennial species and was not observed during project surveys.
Sidalcea neomexicana	mountain sidalcea	--/--, CNPS Rank 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).	**Not Likely to Occur. Not Observed**. No suitable habitat occurs within the study area The study area also occurs at the lowest end of this species known range.

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Texosporium sancti-jacobi	woven-spored lichen	--/--, CNPS Rank 3	Lichen. Occurs on soil, small mammal pellets, dead twigs, and on *Selaginella* spp. in openings in chaparral. Elevation range 195–2,165 ft.	**Not Likely to Occur.** The study area is entirely developed and no suitable habitat occurs. The study area is also located outside of the known elevation range for this species.

Not Likely to Occur–There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) of the Study area and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the Site.
Low Potential to Occur–There is a historical record of the species in the vicinity of the Study area and potentially suitable habitat on Site, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, isolation, substantially reduce the possibility that the species may occur. The Site is above or below the recognized elevation limits for this species.
Moderate Potential to Occur–The diagnostic habitats associated with the species occur on or in the immediate vicinity of the Study area, but there is not a recorded occurrence of the species within the immediate vicinity (within 3 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.
High Potential to Occur–There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the Study area (within 3 miles).
Species Present–The species was observed on the Study area at the time of the survey or during a previous biological survey

Appendix E

Sensitive 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	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.	**None.** This species has been historically reported within three miles; however, the study area lacks suitable vernal pool habitat required by this species.
Monarch (*Danaus plexippus*)	FC/--	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.). Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	**Low Potential to Occur.** Several eucalyptus occur scattered across the study area; however, the site is highly developed and no nectar sources were observed during project surveys.
Hermes copper butterfly (*Lycaena hermes*)	FT/--	Occurs in Southern California from northern San Diego County to Baja California. Inhabits chaparral and sage scrub habitats that contain spiny redberry (*Rhamnus crocea*), the Hermes copper butterfly host plant, within 15 feet of California buckwheat (*Eriogonum fasciculatum*), the preferred nectar source for the Hermes copper butterfly, or any other Hermes nectar sources.	**Not Expected.** Federal critical habitat is located approximately 7,000 feet to the east in association with Lopez Canyon and Los Peñasquitos Canyon Preserve; however, there are no known observations of the species adjacent to the study area. Furthermore, the study area does not contain suitable habitat or host plant species to support this butterfly.
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 plantain [*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.	**Not Expected**. This species has been historically reported within three miles of the study area; however, no suitable chaparral habitat occurs within the study area and there are no recent observations of the species in the vicinity of the project. The study area occurs outside the recommended quino survey area (USFWS 2014).

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.	**Low Potential to Occur.** This species has been historically reported within three miles and suitable riparian habitat occurs within the study area; however, the project site itself does not contain suitable riparian habitat. Furthermore, suitable habitat north of the site does not support temporary pools required by this species for breeding.
Reptiles			
Southwestern Pond Turtle (*Actinemys pallida*)	--/SSC MSCP Covered	Occurs in most major coast-facing drainages below 4,700 feet from Washington south to Baja California, Mexico. In California, occurs from the central coast south of the San Francisco Bay area to San Diego County, including the Mojave River (San Bernardino County) and Andreas Canyon (Riverside County). Habitat generalist that occurs within many types of water from freshwater to brackish environments and permanent to intermittent waterbodies. Inhabit creeks, slow moving rivers, marshes, ponds, lakes, reservoirs, vernal pools, canals and even sewage treatment plants. Prefers habitats with slow flowing water particularly where basking sites (such as rocks, downed logs, or emergent vegetation), deep water retreats, and egg laying areas are readily available. Leaves water and travels to surrounding upland habitats to nest, over-winter, and aestivate.	**Low Potential to Occur.** The project site does not support suitable habitat for this species; however, marginal stream habitat occurs within the study area in Los Peñasquitos Creek. Los Peñasquitos Creek does not contain suitable basking sites and the stream banks are manufactured and very steep in the vicinity of the project site.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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 Potential to Occur.** The project site lacks suitable habitats and loose sandy soils; however, marginal habitat occurs within the study area in Los Peñasquitos Creek. Los Peñasquitos Creek is densely vegetated with very steep, manufactured stream banks.
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.	**Not Expected.** Although this species has been reported within three miles of the study area, the project lacks suitable habitats.
San Diego tiger whiptail (*Aspidoscelis tigris stejnegeri*)	--/SSC	Occurs along the coastal region of southern California from San Luis Obispo south to San Diego County. Inhabits a wide variety of habitats, primarily in hot and dry open areas with sparse vegetation, from sea level to 4,900 feet. Associated habitats include coastal sage scrub, chaparral, riparian areas, woodlands, and rocky areas with sandy or gravelly substrates.	**Moderate Potential to Occur.** The project site lacks suitable riparian habitats and loose sandy soils; however, suitable habitat does occur within the study area in Los Peñasquitos Creek. Historical records of this species occur within three miles of the study area; the most recent of these occurred in 1997.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**Not Expected**. Although this species has been reported within three miles of the study area, the study area lacks suitable scrub and chaparral habitat. Historical records of this species occur within three miles of the study area; the most recent of these occurred in 2002.
Coast 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*).	**None**. Although this species has been reported within three miles of the study area, the project lacks suitable grassland, scrub, or chaparral habitat. Historical records of this species occur within three miles of the study area; however, the most recent of these occurred in 2002.
Coronado skink (*Plestiodon skiltonianus interparietalis*)	--/WL	Occurs from in coastal and inland portions of southern San Diego County, though they 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.	**Low Potential to Occur.** The project site lacks suitable riparian habitats; however, suitable habitat does occur within the study area in Los Peñasquitos Creek. Historical records of this species occur within three miles of the study area; however, the most recent of these occurred in 2002.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**Low Potential to Occur.** The project site lacks suitable riparian habitats; however, suitable habitat does occur within the study area in Los Peñasquitos Creek. There are several historic observations recorded within three miles of the study area; however, the most recent record occurred in 1997.
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 Potential to Occur.** 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.	**None**. Although this species has been reported within three miles of the study area, the study area lacks suitable scrub and chaparral habitat. The most recent observation within three miles of the study area was recorded in 2000.
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.	**None.** The study area lacks suitable grassland habitat required by this species.
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.	**None**. Although this species has been reported within three miles of the study area, the study area lacks suitable scrub and chaparral habitat. The most recent observation within three miles of the study area was recorded in 2000.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)	BCC/SSC MSCP Covered	One of seven subspecies occurring in southern California from southern Orange County south to San Diego County. Occupies native scrub vegetation with thickets of mature cacti consisting of cholla (*Cylindropuntia* spp.) or prickly-pear cactus (*Opuntia littoralis*). Cacti must be tall enough to support and protect the bird's nest (typically 3 feet or more in height). Surrounding vegetation usually consists of coastal sage scrub habitat with shrubs normally below the level of nest placement.	**None.** Although this species has been reported within three miles of the study area, the study area lacks suitable cacti required by this species.
Western Snowy Plover (*Charadrius nivosus nivosus*)	FT, BCC/SSC MSCP Covered	Breeds primarily on coastal beaches from southern Washington to southern Baja California. Nesting habitat includes sand spits, dune-backed beaches, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Usually prefer sand, silt or dry mud with even surface, avoiding rocky or broken ground. Exhibits high breeding site fidelity. In winter, found on many of the beaches used for nesting, as well as others where they do not nest. Also occur in man-made salt ponds and on estuarine sand and mud flats.	**None.** The study area lacks suitable habitat to support this species. This species has been recorded within three miles of the study area as recently as 2008 at Los Peñasquitos Lagoon.
Northern Harrier (*Circus cyaneus*)	--/SSC MSCP Covered	Occurs as a year-round resident in California. Inhabits open areas including wetlands, marshes, marshy meadows, grasslands, riparian woodlands, desert scrub, and pastures and agricultural areas. Breeding populations in southern California from Ventura County to San Diego County are highly fragmented with many local populations extirpated mostly likely as a result of habitat loss and degradation. Nests on the ground in wetlands and uplands within patches of dense, often tall, vegetation in undisturbed areas.	**Moderate Potential to Occur**. The project site lacks suitable riparian habitats; however, suitable habitat does occur within the study area in Los Peñasquitos Creek.
White-tailed Kite (*Elanus leucurus*)	--/FP	Year-long resident of California residing along the coasts and valleys west of the Sierra Nevada foothills and southeast deserts, though the species has also been documented breeding in arid regions east of the Sierra Nevada and within Imperial County. Inhabits low elevation grasslands, wetlands, oak woodlands, open woodlands, and is associated with agricultural areas. Breeds in riparian areas adjacent to open spaces nesting isolate trees or relatively large stands.	**Not Expected.** Although this species has been reported within three miles of the study area, the study area lacks suitable grasslands, wetlands, oak woodlands, open woodlands, or agricultural areas to support this species.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Peregrine Falcon (*Falco peregrinus*)	BCC/FP MSCP Covered	In California, the species breeds and winters throughout the State, except for desert areas. Very uncommon breeding resident and uncommon as a migrant. Active nesting sites of this species within California are known from along the coast north of Santa Barbara, in the Sierra Nevada, and other mountains of northern California. Few nest sites are known anecdotally for southern California mostly at coastal estuaries and inland oases. Inhabits a large variety of open habitats including marshes, grasslands, coastlines, and woodlands. Typically nest on cliff faces in remote rugged sites where adequate food is available nearby, but the species can also be found in urbanized areas nesting on man-made structures.	**Low Potential to Occur.** Although this species has been reported within three miles of the study area, the study area lacks suitable cliff faces typically required by this species; though the species could nest on suitable man-made structures that are found within the study area or potentially forage in the area.
California Black Rail (*Laterallus jamaicensis coturniculus*)	BCC/ST, FP	In California, breeds in the Sacramento-San Joaquin River delta, San Francisco Bay area, Bolinas Lagoon and Tomales Bay in Marin County, Morro Bay in San Luis Obispo County, White Slough in San Joaquin County, the Salton Sea area, and the Lower Colorado River Valley. Inhabits salt marshes, freshwater marshes, and wet meadows. Associated with pickleweed, bulrush, alkali heath, and cordgrass. Requires dense cover of upland vegetation in tidal areas which allows for protection when rails must leave marsh habitats during high tide events.	**Low Potential to Occur.** Although this species has been historically reported within three miles of the study area, it is presumed extirpated from San Diego County. Furthermore, the site lacks suitable salt marshes, freshwater marshes, and wet meadows to support this species.
Osprey (*Pandion haliaetus*)	--/WL	Within California, breeding populations reside in the Cascade and Sierra mountain ranges, though small numbers of the species also breed within San Diego County. Although widely seen on the coast, these birds are rare transients in the interior portions of southern California. Restricted to large water bodies such as rivers, lakes, and reservoirs supporting fish with suitable nesting habitat such as rocky pinnacles or large trees and snags. Build their large nests, often in dead tops of older trees and man-made structures.	**Not Expected.** Although this species has been reported within three miles of the study area, the project site and immediate vicinity lacks suitable rivers, lakes, or reservoirs required by this species for nesting and/or foraging. Los Peñasquitos Creek does not provide suitable nesting or foraging habitat as the vegetation within and surrounding the creek do not allow for open water access.
Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)	--/SE MSCP Covered	Year-round resident of coastal salt marshes within southern California from Santa Barbara County south to San Diego County. Particularly associated with salt marsh habitat dominated by dense pickleweed (*Salicornia* sp.) within which most nests are found.	**None.** Although this species has been reported within three miles of the study area, the study area lacks suitable salt marsh habitat to support this species.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**None.** Although this species has been reported within three miles of the study area, the study area lacks suitable coastal sage scrub habitat.
Light-footed Ridgway's Rail (*Rallus obsoletus levipes*)	FE/SE, FP MSCP Covered	One of six recognized subspecies occurring as a resident in coastal salt marshes and lagoons from Santa Barbara County south to Baja California. The species is found primarily in tall, dense cordgrass (*Spartina foliosa*) and occasionally pickleweed (*Salicornia pacifica*) in the low marsh zone. Also found in freshwater marshes in winter.	**High Potential to Occur.** No suitable riparian and marsh habitat occurs within the project site; however, suitable habitat is present within the study area in Los Peñasquitos Creek.
California Least Tern (*Sternula antillarum browni*)	FE/SE, FP MSCP Covered	Occurs locally along California coastal regions breeding in colonies from San Francisco Bay south to San Diego County. Wintering areas in unknown areas of South America. Nests on relatively bare or sparsely vegetation beaches and mudflats near water. Forage in the bays and estuaries near their colonies, on the ocean near shore, and at inland lakes in the coastal lowland.	**None.** Although this species has been reported within three miles of the study area, the study area lacks suitable beaches or estuaries to support this species.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**High Potential to Occur**. No suitable riparian and marsh habitat occurs within the project site; however, suitable habitat is present within the study area in Los Peñasquitos Creek.
Mammals			
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.	**None.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat. In addition, the study area lacks suitable gravelly or rocky soils. Furthermore, there are only historic records from 2001 of this species within three miles of the study area.
Spotted bat (*Euderma maculatum*)	--/SSC	Occurs throughout western North America but is patchily distributed and considered rare. In California, the species has been found in a small number of localities in the foothills, mountains, and desert regions at elevations below 10,000 feet. Inhabits rocky arid and semi-arid environments including forested mountains, open shrublands, and deserts. Roosts in rock crevices along cliffs adjacent to wide expanses of open habitat. Occasionally roosts in caves and buildings.	**None.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat. The most recent record of this species is from 1955 on the University of California San Diego campus.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**None.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat. The most recent observation of this species near the study area is from Los Peñasquitos Canyon Preserve in 2003.
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.	**Moderate Potential to Occur.** The project site lacks suitable riparian habitats; however, suitable habitat does occur within the study area in Los Peñasquitos Creek. One historical report from 2003 is recorded from Los Peñasquitos Creek.
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.	**None.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat. One historical report from 2002 recorded this species within the Carmel Mountain area.
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.	**Not Expected.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat.

Species	Status[1]	Habitat Associations	Potential to Occur[2]
American badger (*Taxidea taxus*)	--/SSC MSCP Covered	Uncommon, permanent resident found through California, except for the extreme north coast areas. Associated with large blocks of undeveloped land composed of open valleys, alluvial fans, meadows, grasslands, and sandy desert. Dens function as sites for resting and parturition. Friable, easily crumbled soils are important for denning.	**None.** Although this species has been reported within three miles of the study area, the project site is entirely developed and the study area does not contain suitable habitat. The most recent observation of this species within the project vicinity was recorded in 1953.

[1] 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 F

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]).

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.

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.

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.

Appendix G

Multi-habitat Planning Area Boundary Line Correction Supporting Documentation

The project applicant is requesting a Multi-habitat Planning Area (MHPA) boundary line correction (BLC), per the supporting documentation contained herein.

PROJECT LOCATION

The approximately 5.4-acre Enclave Park Project site is located in the community of Torrey Pines in the City of San Diego, San Diego County, California (Figure 1, *Regional Location*). It lies within Section 5 of Township 15 South, Range 3 West, of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located south of Highway 56, east of Interstate 5, and northeast of Interstate 805, in San Diego, California (Figure 1). The site is specifically located at 4122, 4174, and 4202 Sorrento Valley Boulevard, San Diego, CA 92121 (Assessor's Parcel Numbers 341-120-09-00 and 341-120-10-00), south of the Los Peñasquitos Preserve (Figure 3, *Aerial Vicinity*). The site is located within the City's Multiple Species Conservation Program (MSCP) Subarea Plan and Coastal Overlay Zone. A portion of the northern portion of the project site encompasses the City's Multi-Habitat Planning Area (MHPA). U.S. Fish and Wildlife Service (USFWS)-designated critical habitat does not occur within or near the proposed project.

PROJECT DESCRIPTION

The project consists of the redevelopment of the current property with a Life Science/Research and Development building at 4122, 4174, and 4202 Sorrento Valley Boulevard. The project will include office space, a parking structure, and supporting amenities, such as a gym and eating facilities, consistent with the requirements of the Torrey Pines Community Plan (City 2014). The property currently supports seven commercial buildings with associated parking and landscaping. The existing buildings and surrounding improvements will be demolished prior to development. The project would include removing the existing asphalt drive isles and surface parking and creating a landscape area between the existing Los Peñasquitos Creek and the future buildings, including approximately 0.2 acre on City owned lands. The project also includes off-site improvements to the east and south of the property, including driveways, stormwater improvements, and raised concrete medians on Sorrento Valley Boulevard. The project's environmental permits would include a Coastal Development Permit and a Site Development Permit. The project would also obtain a Right-of-Entry permit from the City to remove the asphalt parking from the City-owned lands adjacent to the project and to conduct the 25-month revegetation of this area.

The renovation of the property will include the implementation of a wetland buffer, and the creation of a green space will occur within a combined 0.4 acre currently mapped as part of the City's MHPA. The area is entirely made up of developed land and non-native vegetation within the existing property boundary. It is currently anticipated that the City will process an MHPA boundary correction for these areas because these areas were all initially cleared and disturbed sometime between 1966 and 1978, as further discussed in the "Impacts" section of this report.

The project also includes design features to avoid impacts to sensitive species with the potential to occur in the adjacent Los Peñasquitos Creek, as described in Section 1.3 of the Biological Technical Report. Specifically, the project will avoid direct impacts to all riparian habitat associated with Los Peñasquitos Creek and will incorporate a 100-foot wetland buffer between Los Peñasquitos Creek and project development. During construction, the limits of work will be fenced to protect adjacent areas.

The project would avoid impacts to the light-footed Ridgway's rail (*Rallus obsoletus levipes*; federally endangered, state endangered, and a state of California Fully Protected species) and the least Bell's vireo (*Vireo bellii pusillus*; federal endangered and state endangered), by implementing noise attenuation measures and conducting biological and noise monitoring throughout construction during the breeding seasons (February 15-April 30 for rails; March 15-September 15 for vireos).

ENVIRONMENTAL SETTING

The study area is situated in the community of Torrey Pines in an industrial light area. Surrounding land uses include Sorrento Valley Boulevard directly abutting the southeastern boundary of the site, commercial development to the south, east, and west, and open space areas to the north, including the Los Peñasquitos Canyon Preserve (Figure 3). I-5 and I-805 are located west of the study area (Figure 1). The entire project footprint is confined to existing developed areas of 4122, 4174, and 4202 Sorrento Valley Boulevard. Historical aerials of the site indicated that Commercial development of the site originally occurred sometime between 1966 and 1978, as shown on Figure 4, *Previous Site Development Map (1978 Aerial)* (HistoricalAerials.com, 2022).

Soil mapping units within the study area consist of: Chino silt loam, saline, 0 to 2 percent slopes and Tujunga sand, 0 to 5 percent slopes. These mapped soil types underlie the developed portion of the study area. The developed portion of the study area is generally flat, with the terrain modified to serve the land use of the site, with the undeveloped areas to the north sloping down. The elevation within the study area ranges from approximately 30 feet to 50 feet above mean sea level.

EXISTING VEGETATION COMMUNITIES

A total of three vegetation communities/land cover types were mapped within the study area: southern riparian forest, non-native vegetation, and developed land (Figure 5, *Vegetation and Sensitive Resources*; Table G-1, *Existing Vegetation Communities/Land Uses within the Study Area*). The proposed project is almost entirely developed, with some non-native ice plant (*Carpobrotus edulis*) along the northeastern corner of the property boundary.

Table G-1
EXISTING VEGETATION COMMUNITIES/LAND USES
WITHIN THE STUDY AREA

Vegetation Community/Habitat	MSCP Tier[1]	Existing (acres)[2]		
		Outside MHPA[3]	Inside MHPA	Total
Southern Riparian Forest (61300)	Wetland	--	1.83	1.83
Non-Native Vegetation (11000)	IV	--	<0.1	<0.1
Developed (12000)	V	8.2	1.0	9.2
	TOTAL	**8.2**	**2.83**	**11.03**

[1] Tiers refer to City MSCP Subarea Plan habitat classification system.
[2] Rounded to the nearest 0.1 acre
[3] To be removed from the MHPA via a boundary correction, further discussed below.

PROPOSED IMPACTS TO VEGETATION COMMUNITIES

A boundary line correction would be implemented to remove the northern portion of the existing property that contains developed lands from the MHPA. Following the approval of the MHPA boundary line correction, approximately 5.4 acres of developed area and less than 0.1 acre of non-native vegetation outside of MHPA and approximately 0.2 acre of developed area inside MHPA will be impacted as a result of the proposed project (Figure 6, *Vegetation and Sensitive Resources/Impacts*; Table G-2, *Impacts to Vegetation Communities*). The proposed project would not result in direct impacts on any sensitive upland or wetland habitats inside or outside of MHPA; therefore, no mitigation for sensitive upland or wetland habitats is proposed.

Table G-2
IMPACTS TO VEGETATION COMMUNITIES POST-MHPA
BOUNDARY LINE CORRECTION

Vegetation Community/Habitat	MSCP Tier[1]	Impacts (acre)[2]		
		Outside MHPA	Within MHPA[3]	Total
Southern Riparian Forest (61300)	Wetland	--	--	--
Non-Native Vegetation (11000)	IV	<0.1	--	<0.1
Developed (12000)	V	5.4	0.2	5.6
	TOTAL	***5.4***	***0.2***	***5.6***

1 Tiers refer to City MSCP Subarea Plan habitat classification system.
2 Rounded to the nearest 0.1 acre.
3 As further discussed below, 0.4 acre of developed lands to be removed from the MHPA via a boundary correction. Approximately 0.2 acre of developed land will remain in MHPA following asphalt removal and revegetation.

MULTI-HABITAT PLANNING AREA BOUNDARY LINE CORRECTION

The original MHPA boundary for this site was established as part of the regional MSCP mapping efforts, which became effective in March 1997. The MHPA BLCs are allowed under the City's MSCP to rectify minor mapping inaccuracies at the project level and can be processed with the project's discretionary review. The MHPA BLCs typically involve removing existing, pre-MSCP development from the mapped MHPA.

Renovations to the property would affect approximately 0.4 acre of land within the current limits of the MHPA, made up of primarily developed land and approximately 98 square feet of non-native vegetation (Figure 7, *MHPA Boundary Line Correction;* Table G-3*, MHPA Boundary Line Correction Summary*). The project site does not support native or sensitive vegetation communities. An additional 0.2 acre of developed land on City of San Diego owned land will be impacted as a result of the property redevelopment. These impacts consist of asphalt removal within developed lands. The area proposed for off-site improvements are not included in the MHPA BLC request and would remain in MHPA.

A review of aerial imagery from 1966 through 1993 indicates that the area was initially graded and developed no later than 1978, approximately 20 years prior to the adoption and implementation of the MSCP and MHPA (Figure 4). This area has continued to be a part of the existing property prior to the adoption of the MSCP, consisting of seven buildings, parking areas, and maintained areas (Attachment 1, *Assessor's Building Record)*. The project proposes renovations in the MHPA area consisting of the replacement of an existing building and the establishment of a 100-foot wetland buffer between the

proposed redevelopment and Los Peñasquitos Creek. As stated above, the area is primarily developed consisting of asphalt parking and roadways and does not support native or naturalized vegetation.

Table G-3
MHPA BOUNDARY LINE CORRECTION SUMMARY

Vegetation Community	MSCP Tier[1]	MHPA BLC[2, 3]
Non-native Vegetation (11000)	IV	<0.1
Developed (12000)	V	0.4
	TOTAL	**0.4**

[1] Tiers refer to City MSCP Subarea Plan habitat classification system.
[2] Rounded to the nearest 0.1 acre. To be removed from the MHPA via a boundary correction, further discussed below.
[3] Does not include off-site areas within City-owned lands that will remain in the MHPA. The asphalt will be removed from the off-site area and the area will be revegetated with native species.

The proposed MHPA BLC would result in a net loss to the MHPA of 0.4 acre; however, this loss does not represent a significant impact to the MHPA because:

- The proposed BLC area is within the limits of the existing property, and these areas were graded and developed in the 1970s, prior to the adoption of the MSCP in 1997.

- No wetlands or wetland buffer areas would be impacted by the project as none currently exist within the project site. However, the project would establish a 100-foot wetland buffer along the northern edge of the property between Los Peñasquitos Creek and project development to ensure and improve the function and values of the adjacent wetland habitat (Figure 5).

- No sensitive species habitat would be removed from the MHPA as a result of the BLC; therefore, the proposed MHPA BLC is not anticipated to have a negative effect on habitat linkages, wildlife corridors, or the management efficiency of the preserve (Figure 7). The project would not expand the current footprint of the property, and the proposed BLC area is located immediately adjacent to an open and contiguous MHPA habitat more suitable for wildlife movement. Furthermore, the proposed BLC would not increase the likelihood of a significant impact to a non-covered species or result in an impact to a rare or sensitive species that would result in the possible listing under federal or state ESAs.

- Removing the area would not avert the applicant from otherwise having to comply with the City's MSCP Land Use Adjacency Guidelines. The project would comply with MHPA adjacency guidelines in the following manner:

    - The proposed project includes the creation of one or more biofiltration water quality basins along the northern edge of the project to capture storm water runoff from the site where none currently exist. Appropriate best management practices (BMPs) would be utilized during construction and restoration to avoid impact to Los Peñasquitos Creek. No materials used in the construction of the project would be toxic, and all fueling, repair, and maintenance of construction equipment would take place outside of drainages and the MHPA.

- The proposed project does not include land uses that would utilize chemicals or byproducts potentially toxic or harmful to wildlife, habitat, or water quality.

- The proposed project consists of new research buildings with exterior lights for safety. Exterior lighting would be designed to shield the MHPA and sensitive species from night lighting. Project construction is expected to occur during daylight hours. Should construction lighting be necessary, the lighting would be directed away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

- The project would comply with the City's standard requirements for compliance with construction noise and construction setback buffers from active nests to avoid indirect construction noise impacts on sensitive avian species. In addition, noise attenuation measures are included as part of the project description to avoid impacts to light-footed Ridgway's rail and least Bell's vireo.

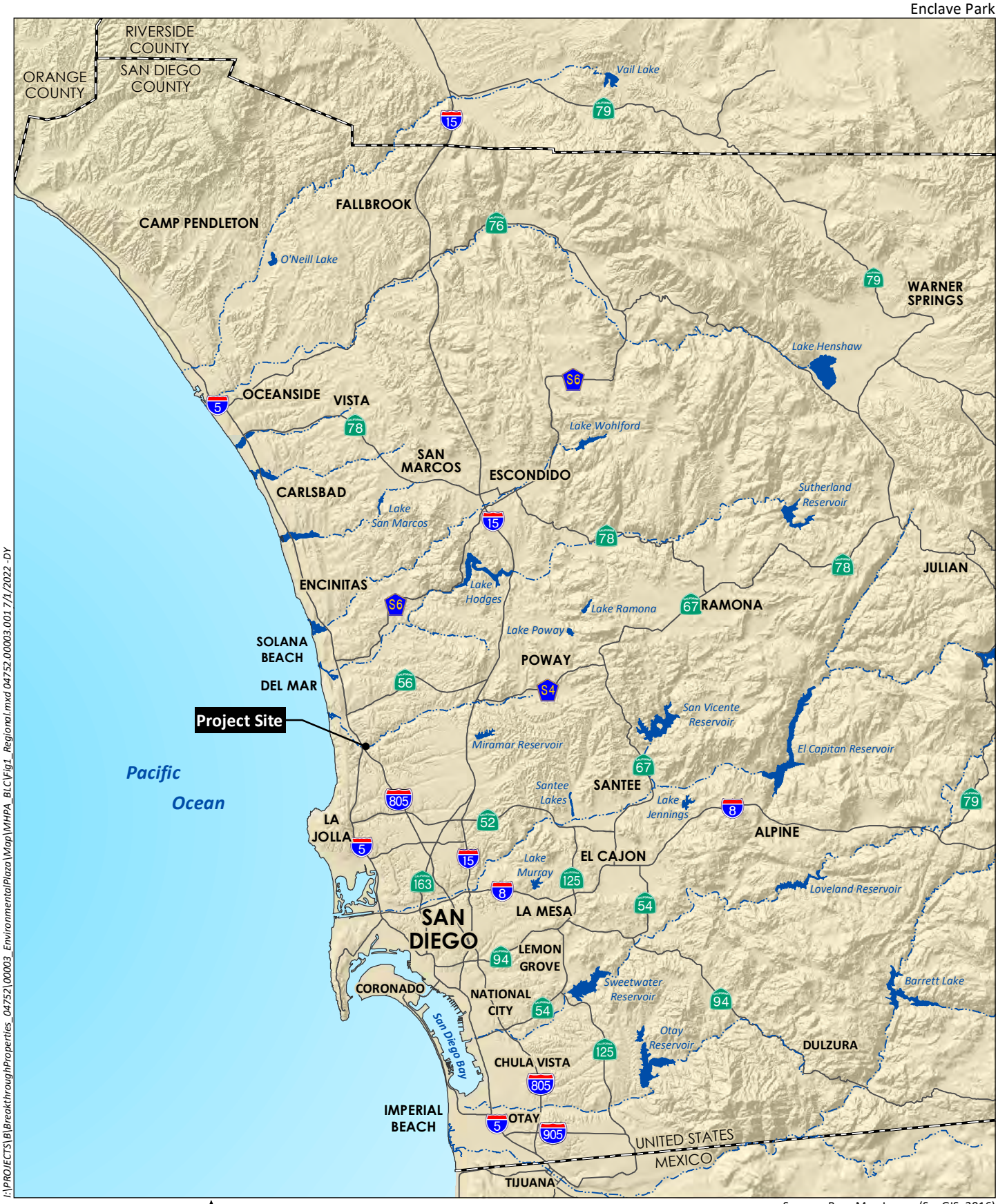
- Barriers to incursions, such as fences, would be utilized along the northern boundary of the project to deter and redirect public access away from the MHPA. Access, trails, and pathways into the MHPA do not exist and are not being proposed. The proposed project is a research facility; therefore, domestic animal incursion and predation are not anticipated within MHPA.

- All equipment shall be clean and free of debris and mud prior to entering the project site to reduce the potential for the introduction of invasive plant species. Furthermore, no invasive plant species would be included in the project landscaping.

- The proposed project is not subject to brush management, as habitable premises are not located within 100 feet of a structure and contain native or naturalized vegetation.

- All manufactured slopes associated with the project development are included in the project footprint. The project also includes the removal of asphalt within City-owned lands. No grading or slope manufacturing is proposed or anticipated as a result of the off-site asphalt removal; therefore, the asphalt removal would be consistent with the Land Use Adjacency Guidelines and general management directives.

- The limits of work, sensitive species, and sensitive vegetation communities will be clearly identified and demarcated with flagging, staking, and/or construction fencing, or a combination thereof. No new manufactured slopes would be constructed within the MHPA.



I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\MHPA_BLC\Fig1_Regional.mxd 04752.00003.001 7/1/2022 -DY

0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1

Enclave Park

I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\MHPA_BLC\Fig2_USGS.mxd 04752.00003.001 7/1/2022 -DY

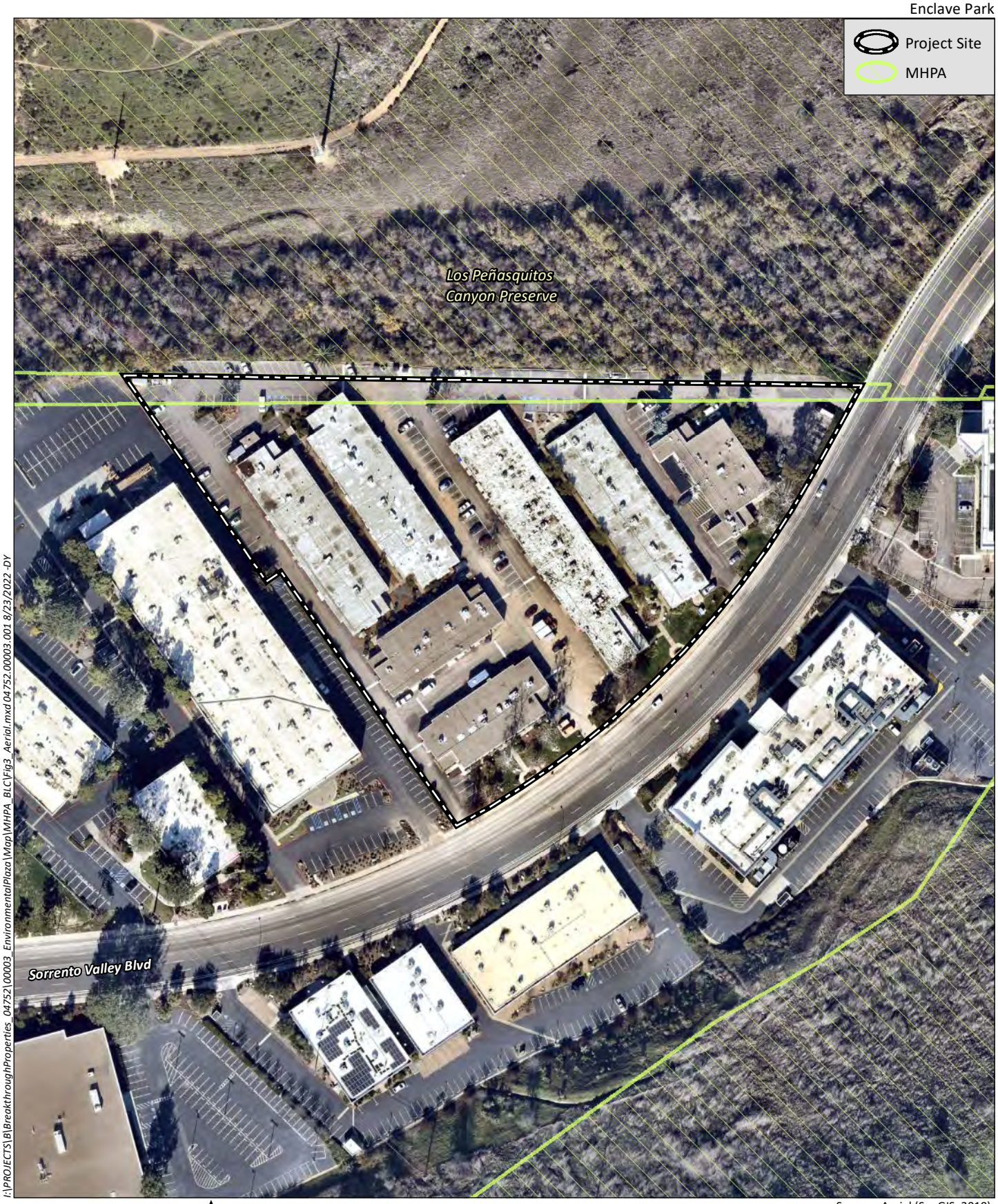
0 2,000 Feet

Source: DEL MAR 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

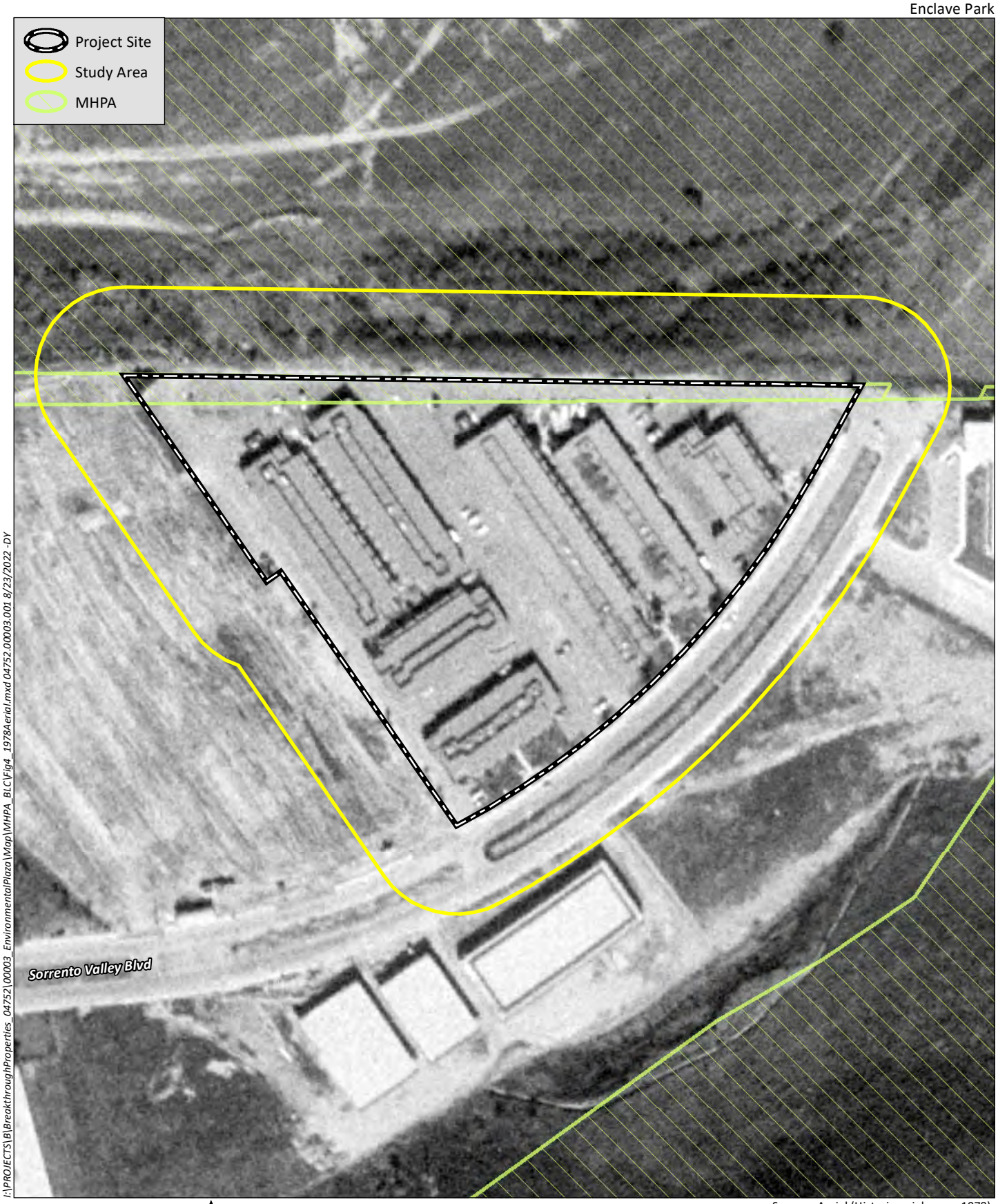


Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Aerial Photograph

Figure 3



I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\MHPA_BLC\Fig4_1978Aerial.mxd 04752.00003.001 8/23/2022 -DY

0 150 Feet

Source: Aerial (Historicaerials.com, 1978).

HELIX Environmental Planning

Previous Site Development Map (1978 Aerial)

Figure 4

HELIX Environmental Planning

Vegetation Communities and Sensitive Resources

Figure 5

Enclave Park

0 150 Feet

Source: Aerial (SanGIS, 2019).

I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\MHPA_BLC\Fig6_Impacts.mxd 04752.00004.001 7/11/2023 -DY

HELIX Environmental Planning

Vegetation and Sensitive Resources/Impacts

Figure 6

Enclave Park

I:\PROJECTS\B\BreakthroughProperties_04752\00003_EnvironmentalPlaza\Map\MHPA_BLC\Fig7_Veg_BoundaryCorrection.mxd 04752.00004.001 7/21/2023 -DY

0 100 Feet

N

Source: Aerial (SanGIS, 2019).

HELIX Environmental Planning

Vegetation Communities and Sensitive Resources Post-Boundary Line Correction

Figure 7