One Alexandria North Project

Biological Technical Report

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ACRONYMS AND ABBREVIATIONS

APN	Accessor's Parcel Number
BCLA	Biological Core and Linkage Area
BCME	Biological Construction Mitigation/Monitoring Exhibit
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
CRPR	California Rare Plant Rank
CRZ	critical root zone
CSVR	Consultant Site Visit Record
CWA	Clean Water Act
ESHA	environmentally sensitive habitat area
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
GPS	Global Positioning Unit
HCP	Habitat Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
I-	Interstate
ISA	International Society of Arboriculture
LCP	Local Coastal Program
LUAG	Land Use Adjacency Guidelines
MBTA	Migratory Bird Treaty Act
MHPA	Multiple Habitat Planning Area
MM	mitigation measure
MMC	Mitigation Monitoring Coordination
MSCP	Multiple Species Conservation Plan

ACRONYMS AND ABBREVIATIONS (cont.)

NPPA	Native Plant Protection Act
NWI	National Wetland Inventory
Porter-Cologne	Porter-Cologne Water Quality Control Act
project	One Alexandria North Project
project proponent	Alexandria Real Estate Equities
RWQCB	Regional Water Quality Control Board
SWRCB	State Waters Resources Control Board
TPSR	Torrey Pines State Reserve
TPZ	Tree Protection Zone
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 Alexandria Real Estate Equities' (project proponent) proposed One Alexandria North Project (project; PTS-0691942). 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 unavoidable significant impacts to sensitive biological resources.

1.2 PROJECT LOCATION

The approximately 11.5-acre One Alexandria North 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 an unsectioned portion of Township 14 South, Range 4 West of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located east of the Pacific Ocean and south, west of Interstate (I-) 5, south of Del Mar, and north of La Jolla (Figure 1). The site is specifically located at 11255 and 11355 N Torrey Pines Rd, La Jolla, CA 92037 (Accessor's Parcel Numbers [APNs] 310-110-13-00 and 310-110-14-00), west of Torrey Pines State Reserve (TPSR; Figure 3, *Aerial Vicinity*). The site is located within the City's Multiple Species Conservation Program (MSCP) Subarea Plan and Coastal Zone (Figure 4, *Regional Context*). Sections of the eastern portion of the project site abut or encompasses portions of the Multiple-Habitat Planning Area (MHPA; Figure 4). 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 National University – La Jolla, California Academic Headquarters into a two-building research and development campus with supporting amenities and a parking structure (Figure 5, *Site Plan*). Current property improvements include two commercial buildings with two stories each, a stand-alone amenity building, tennis courts, a pool, and a water quality basin and associated outfall. The two existing buildings at 11255 N. Torrey Pines Road and 11355 N. Torrey Pines Road and surrounding improvements will be demolished prior to development. The total project floor area will be 256,500 square feet. The project permits would include a Coastal Development Permit (CDP), a Site Development Permit, a Neighborhood Development Permit, and a Tentative Parcel Map.

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 2021), SanBIOS (County of San Diego 2021), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2021). 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.

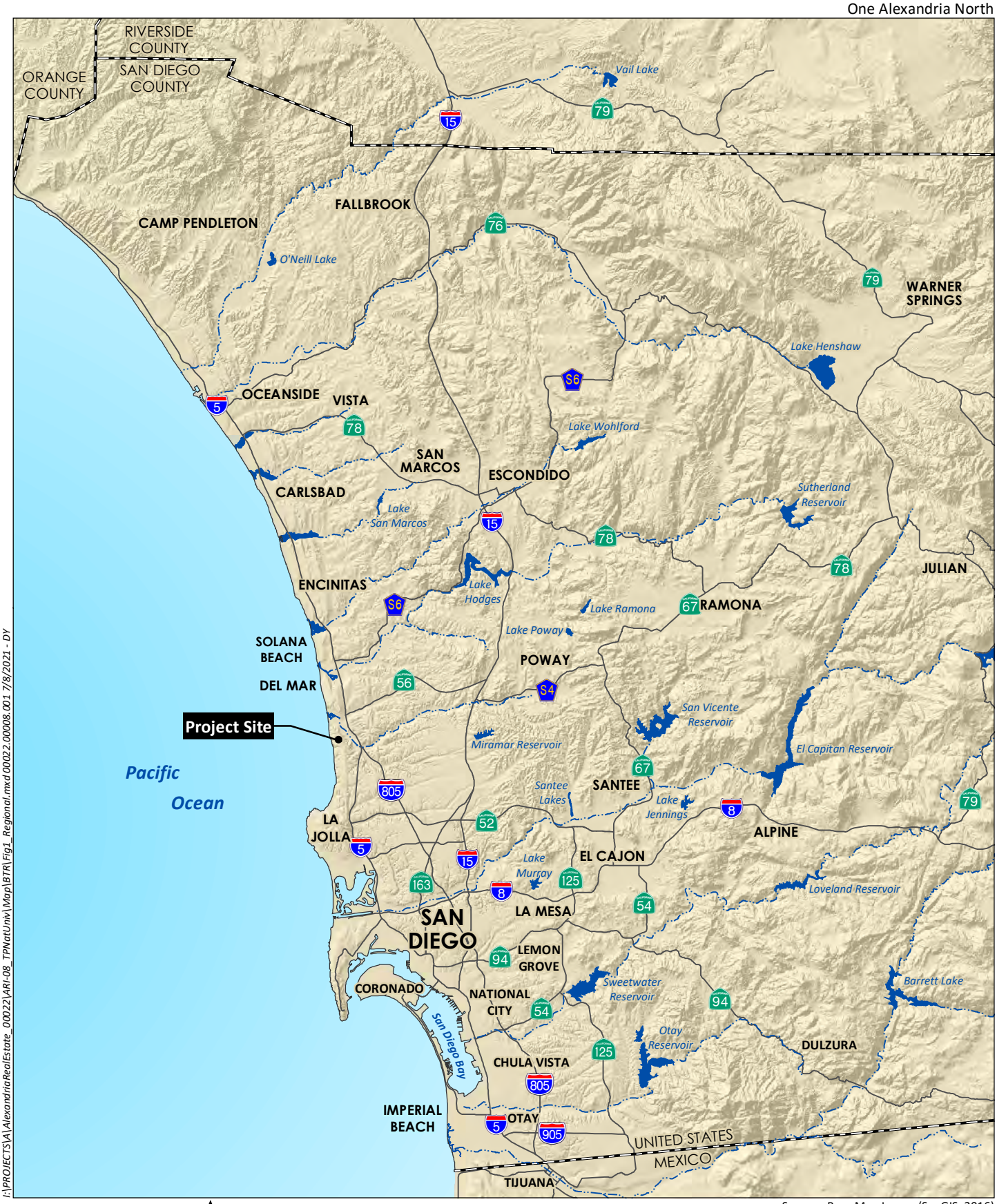
2.2 GENERAL BIOLOGICAL SURVEY

An initial general biological survey of the project study area (i.e., the project site and an additional 100 feet adjacent to the site) was conducted by HELIX biologist Katie Bellon on January 4, 2021 (Table 1, *Survey Information*). Vegetation was mapped on a 1"=150' 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. Bellon 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 4, 2021	Katie Bellon	General Biological Survey, Vegetation Mapping, Habitat Assessment, Jurisdictional Assessment
January 4-6, 2021	Alexander Walsh	Arborist Survey
April 12, 2021	Angelia Bottiani	Spring Rare Plant Survey
June 3, 2021	Angelia Bottiani	Summer Rare Plant Survey
September 20, 2021	Katie Bellon	Focused Jurisdictional Assessment

Plant and animal species observed or otherwise detected were recorded in field notebooks. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped. Photographs of the site are included in Appendix A, *Representative Site Photographs*.



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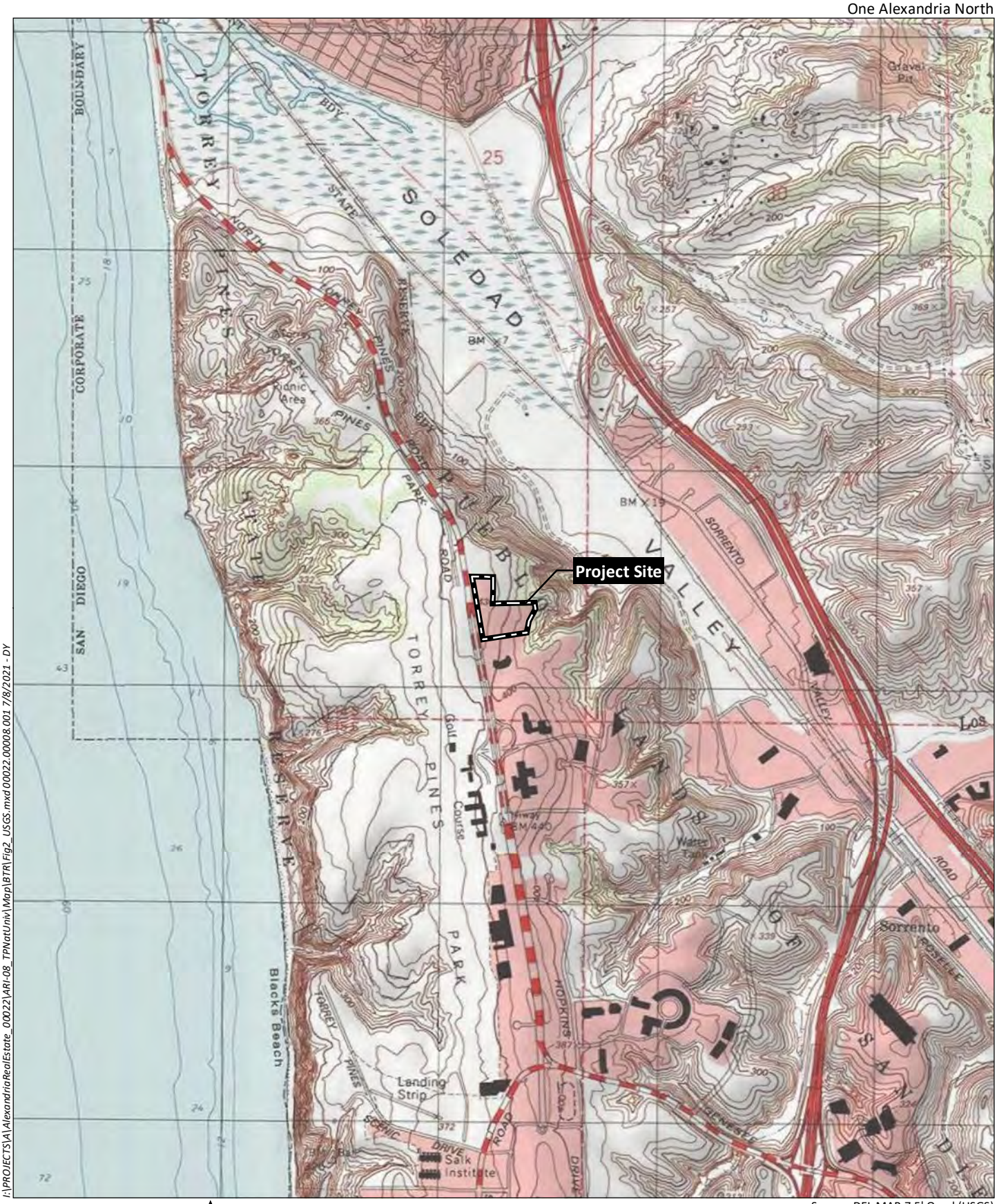
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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Source: DEL MAR 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

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Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 3

Source: Aerial (Maxar, 2021)

HELIX Environmental Planning

Regional Context

Figure 4

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Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Site Plan

Figure 5

2.3 FOCUSED SPECIES SURVEYS

2.3.1 Rare Plant Surveys

HELIX biologist Angelia Bottiani conducted the surveys for special status plant species on the project site on April 12 and June 3, 2021 (Table 1). Special status plant species include species that are: listed as threatened or endangered by the USFWS or the CDFW; those with a California Rare Plant Rank (CRPR) 1 through 4 as designated by the CNPS; and those that are listed as narrow endemic under the City Biological Guidelines (City 2018) and covered by the City's MSCP Subarea Plan (City 1997). The surveys were conducted on foot and included 100 percent visual coverage of the project site. Special status plant species encountered were mapped using a hand-held Global Positioning System (GPS) unit and/or on an aerial photograph. Special status plant species were also opportunistically searched for during other surveys, and their numbers and locations were recorded when they were encountered.

2.3.2 Torrey Pine Arborist Survey

HELIX International Society of Arboriculture (ISA) Certified Arborist, Alexander Walsh (WE-12997A) completed the Torrey pine (*Pinus torreyana* ssp. *torreyana*) tree survey of the Torrey Pine survey area (i.e., the project site and an additional 50 feet adjacent to the site, within the 100-foot survey area) between January 4 and January 6, 2021 (Appendix G, *Torrey Pine Arborist Report;* Figure 6, *Previous Site Development Map [1980 Aerial]*).

Each tree was located with sub-meter accuracy using a GPS 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.

The Torrey pines surveyed within, directly abutting, and adjacent to the project footprint were categorized as naturally-occurring Torrey pines or ornamental Torrey pines. The origin of each tree was determined by overlaying the current tree survey data on historic aerial imagery that dates back to 1978. The 1978 aerial photograph shows the site as undeveloped, while the 1980 aerial photograph illustrates that the majority of the project site was graded and devoid of vegetation and trees (Figure 6). However, Torrey pines near the northern and eastern project boundaries remained intact after site development in the early 1980s should be considered naturally-occurring, and those present within the 1980 impact limits should be considered ornamental landscaping.

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 to the general biological survey on January 4, 2021 (Table 1). Prior to conducting fieldwork, aerial photographs (1"=150' scale), topographic maps (1"=150' scale), and NWI

maps were reviewed to assist in determining the presence or absence of potential jurisdictional areas within the project site. The purpose of the 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 project site, as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special status and have high potential to occur in the project site, however, are still addressed in this report.

2.6 NOMENCLATURE

Nomenclature used in this report generally comes from the City's MSCP Subarea Plan (City 1997), Holland (1986) and Oberbauer (2008) for vegetation; Jepson eFlora (2020) for plants; Society for the Study of Amphibians and Reptiles (2020) for reptiles and amphibians; American Ornithological Society (2020) 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 2021), CDFW (2020a), and City (2018). Animal species status is from the CDFW (2020b) and City (2018).

3.0 REGIONAL AND REGULATORY FRAMEWORK

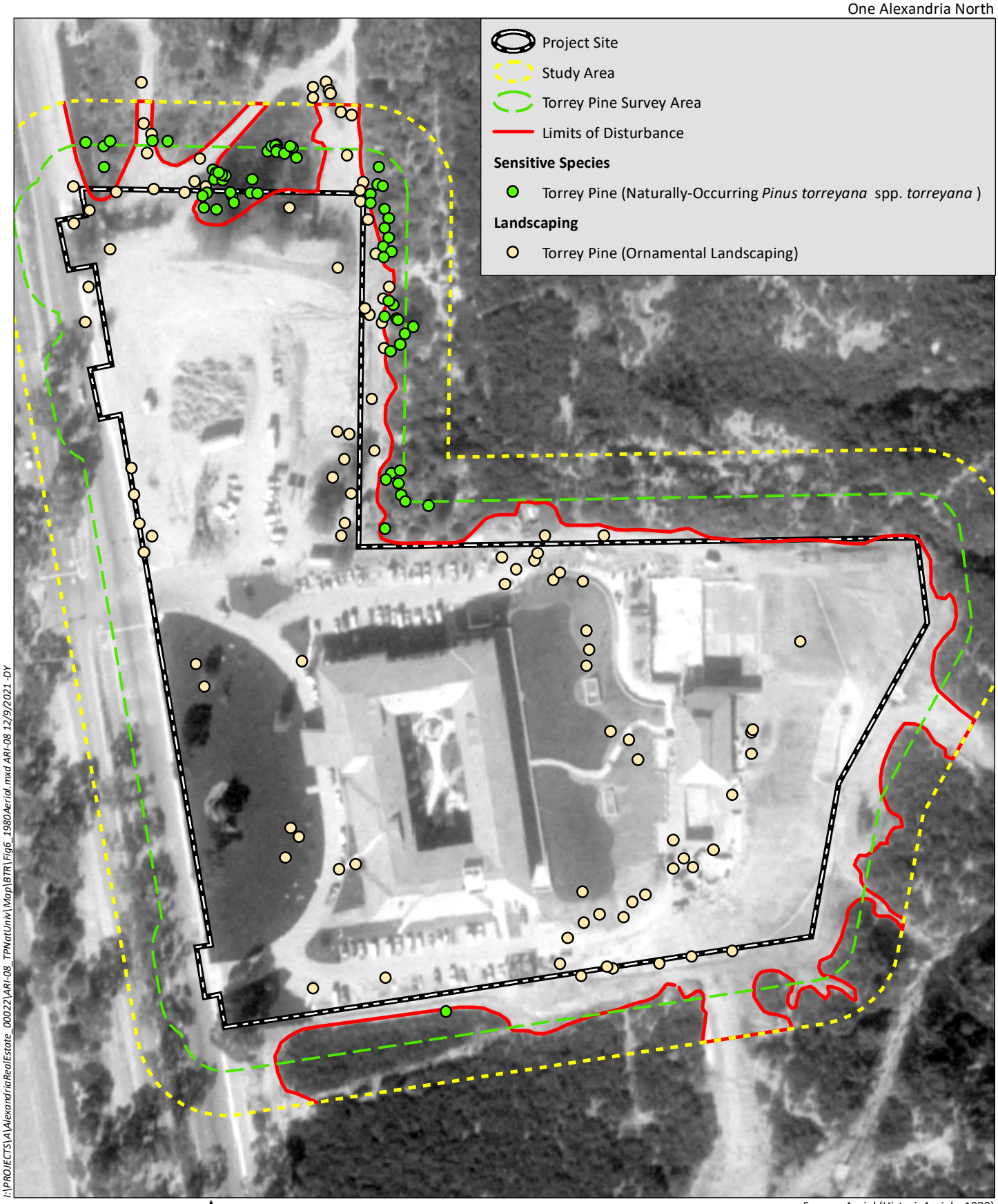
Biological resources within the project site are subject to regulatory administration by the federal government, the state of California, and the City.

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

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The



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0 150 Feet

Source: Aerial (HistoricAerials, 1980)

HELIX Environmental Planning

Previous Site Development Map (1980 Aerial)

Figure 6

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 Local Coastal Program Land Use Plan (Figure 4). Specifically, the project site occurs within the University-La Jolla community plan areas of the North City LCP.

The California Coastal Act provides a definition of "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, in order for an area to be designated as ESHA, the species or habitat must be either rare or 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. Specific to ESHA, the University-La Jolla LCP Addendum (City 1981) notes the fragility of the Torrey Pines State Reserve and

adjacent canyons and provides general references to protecting against habitat degradation and protecting against adverse impacts to the unique ecological and geologic nature of the park.

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: (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 followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated rare under the 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 (SWRCB) and RWQCB regulate the discharge of waste into waters of the state via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne), as described in the California Water Code. The California Water Code is the state's version of the federal CWA. Waste, according to the California Water Code, includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

State waters that are not federal waters may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in 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. Southern maritime chaparral (including disturbed) is the only sensitive vegetation community/habitat type mapped within the project site.

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, 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 has been 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 Zone (Figure 4) and within the boundaries of the North City Local Coastal Program Land Use Plan (City 2005), which further details supplemental coastal development policies. The project site does not occur within a floodplain area. Potentially 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 project site is generally located within the Central Coast ecological region of the City of San Diego (San Diego Natural History Museum 2014). 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 site is situated in the community of Torrey Pines in a mixed-use area. Surrounding land uses include North Torrey Pines Road directly abutting the western boundary of the site, commercial development, recreational development such as Torrey Pines Golf Course, and open space areas, including the Torrey Pines State Nature Reserve (Figure 3). I-5 is located east of the site (Figure 1).

4.2 DISTURBANCE

The majority of the project footprint is confined to existing developed areas of the National University – La Jolla, California Academic Headquarters west of North Torrey Pines Road. Historical aerials of the site indicated a paved reservoir was built on the western section of the project site sometime prior to 1953 (HistoricalAerials.com, 2021). Commercial development of the site originally occurred sometime between 1978 and 1980, and the site was further developed in the mid-1980s.

4.3 TOPOGRAPHY AND SOILS

The project site generally slopes from west to east. Along the eastern project boundary slopes increase within undeveloped areas. Two soil types were mapped within the project site (USDA 2020; Figure 7, *Soils*): Carlsbad gravelly loamy sand, 5 to 9 percent slopes, and Carlsbad gravelly loamy sand, 9 to 15 percent slopes. Elevation within the project site ranges from approximately 360 feet to 430 feet above mean sea level.

4.4 VEGETATION COMMUNITIES

A total of five vegetation communities/land cover types were mapped within the project site (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 within the project site are presented in Table 2, *Existing Vegetation Communities/Land Cover Types Within The Project Site* by Tier.

Table 2
EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES WITHIN THE PROJECT SITE[1]

Vegetation Community/Land Cover Type[1]	Habitat Tier	Existing (acres)[2]		
		Outside MHPA	Within MHPA	Total
Southern Maritime Chaparral (37C00)	I	<0.1	0.1	0.1
Disturbed Southern Maritime Chaparral (37C00)	I	0.7	0.2	0.9
Torrey Pine Forest (83140)	I	--	--	--
Non-Native Vegetation – Italian Stone Pine	IV	0.1	--	0.1
Developed (12000)	IV	10.3	<0.1	10.4
	Total	***11.2***	***0.3***	***11.5***

[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. Acreages shown in this table represent existing vegetation communities inside and outside of MHPA prior to the MHPA boundary line correction further discussed below.

Southern Maritime Chaparral

Southern maritime chaparral is restricted to the weathered sands within the coastal fog belt in San Diego County from La Jolla to Carlsbad. This low, fairly open, chaparral is dominated by wart-stemmed ceanothus (*Ceanothus verrucosus*), toyon (*Heteromeles arbutifolia*), and chamise (*Adenostoma fasciculatum*). Additional species include evergreen buckthorn (*Rhamnus ilicifolia*), mission manzanita

Source: Aerial (SanGIS, 2019)

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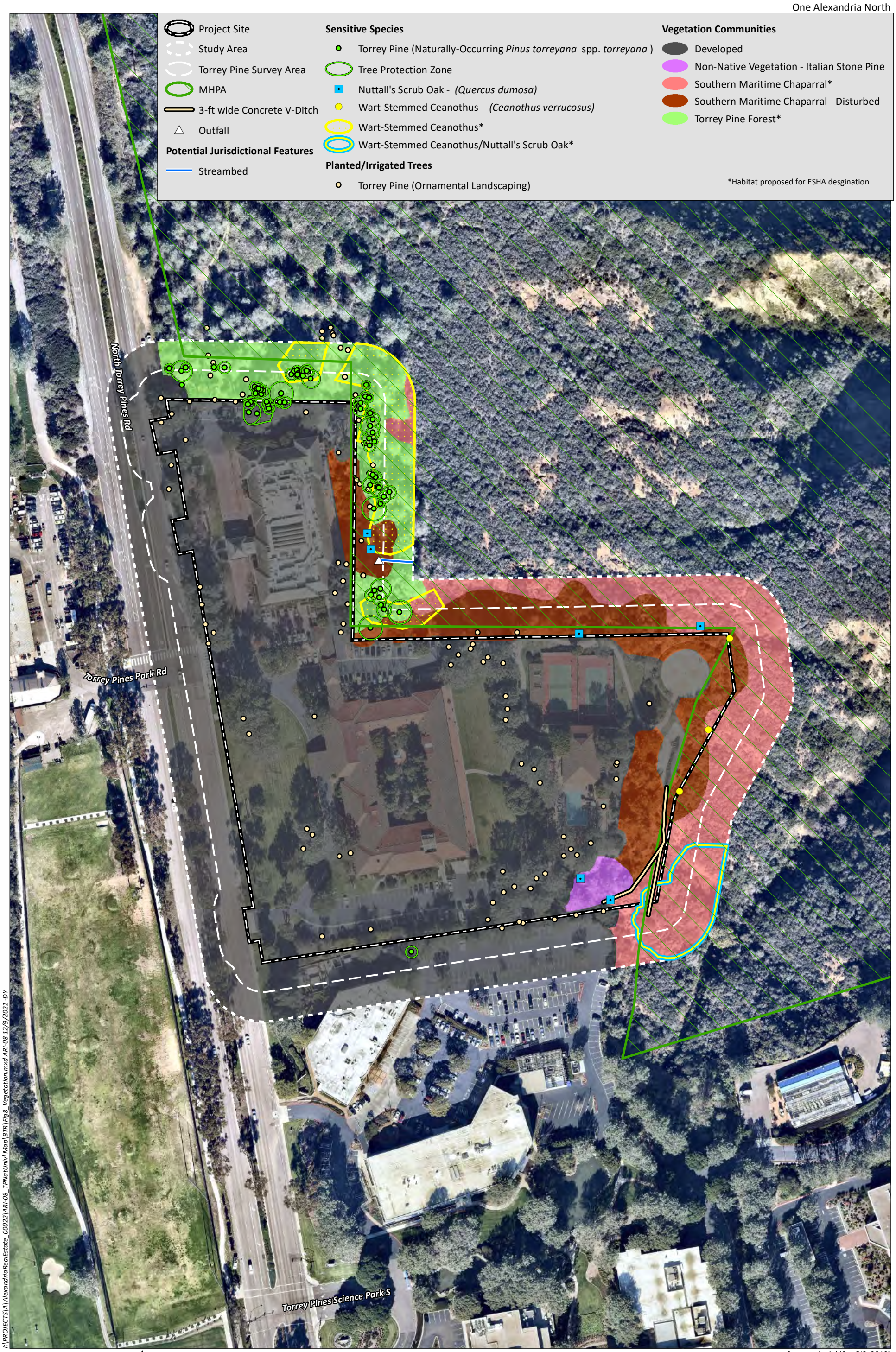
Soils

Figure 7



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Vegetation Communities and Sensitive Resources

Figure 8

(*Xylococcus bicolor*), Nuttall's scrub oak (*Quercus dumosa*), lemonade berry (*Rhus integrifolia*), sawtoothed goldenbush (*Hazardia squarrosa*), and black sage (*Salvia mellifera*). Disturbed southern maritime chaparral contains many of the same species with a higher proportion of non-native species and signs of human disturbance.

This community occurs along the eastern boundary of the study area (Figure 8). A total of 0.1 acre of southern maritime chaparral was mapped within the project site, which includes 0.1 acre within the MHPA. A total of 0.9 acre of disturbed southern maritime chaparral was mapped within the project site, including 0.2 acre within the MHPA.

Torrey Pine Forest

Torrey pine is the most restricted pine species in California. This species occurs in only two localities: near Del Mar, where it is scattered for approximately 10 miles along the eroded coastal bluffs or marine terraces, and a small coastal area on Santa Rosa Island. Maritime climate with low precipitation, frequent fog, and sandstone derived soils are the important abiotic environmental factors that characterize this community (Vogl 1977). In this open to moderately dense forest, individuals may reach a height of 65 feet in sheltered localities but are much shorter in stature in exposed situations due to wind-pruning (Holland 1986). The associated species include lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), wart-stemmed ceanothus, toyon (*Heteromeles arbutifolia*), sea dahlia (*Coreopsis maritima*), coast spice bush (*Cneoridium dumosum*), chamise, mission manzanita, California sagebrush (*Artemisia californica*), flat-topped buckwheat (*Eriogonum fasciculatum* ssp*. fasciculatum*), black sage (*Salvia mellifera*), and white sage (*Salvia apiana*).

Torrey pines planted following the site development in 1980 and maintained as ornamental landscaping are not classified as Torrey Pine Forest.

This community occurs along the northern and eastern portions of the study area (Figure 8). No Torrey Pine Forest was mapped within the project site; however, 1.5 acres were mapped within the study area, which includes 1.0 acre within the MHPA.

Non-Native Vegetation – Italian Stone Pine

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 Italian stone pine (*Pinus pinea*).

This community occurs in the southeastern portion of the project site (Figure 8). All 0.1-acre of non-native vegetation (Italian stone pine) is located outside 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 project site totaling 10.4 acres, including less than 0.1 acre, of which occurs within the MHPA. Developed land includes the existing National University campus development, its associated landscaping and parking lots, and the shoulder of North Torrey Pines Road (Figure 8).

4.5 FLORA

A total of 58 plant species were documented during biological surveys for the project, of which 36 (61 percent) were native species and 25 (39 percent) non-native species (Appendix B, *Plant Species Observed*).

4.6 FAUNA

A total of 14 animal species were observed or detected during biological surveys for the project, including 13 bird and one amphibian species (Appendix C, *Animal Species Observed or Detected*).

5.0 SENSITIVE BIOLOGICAL RESOURCES

5.1 SPECIAL STATUS PLANT SPECIES

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the City (e.g., MSCP narrow endemic species), and may also be included in the CNPS Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those 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.

5.1.1 Special Status Plant Species Observed

Three special status plant species were observed in the project site during the general biological and rare plant surveys: Nuttall's scrub, wart-stemmed ceanothus, and Torrey pines.

None of these species are federally or state listed. Wart-stemmed ceanothus and Torrey pines are covered under the City's MSCP Subarea Plan (City 1997). All three special status species observed have a CRPR rank of 2B.2 or higher. A list of all plant species with the potential to occur is included in Appendix D.

Nuttall's scrub oak (*Quercus dumosa*)

Listing: --/--; CRPR 1B.1
Distribution: San Diego, Orange, and Santa Barbara counties; Baja California, Mexico.
Habitat: Chaparral with a relatively open canopy cover is the preferred habitat in flat terrain (also found in coastal scrub). On north-facing slopes, may grow in dense monotypic stands. Sandy or clay loam soils.
Presence within the Project Site: A total of two individuals were documented within the project site. One within the ~~individual was documented in~~ southern maritime chaparral within the southeast portion of the site, and ~~a second individual was mapped~~one within the non-native vegetation in ~~that occurs within~~ the southeast portion of the site (Figure 8). The individual within the non-native vegetation habitat is an area with a high degree of ornamental landscaping and irrigation. An additional 11 individuals were documented to the east of the project site within the 100-foot additional study area (Figure 8).

Wart-stemmed ceanothus (*Ceanothus verrucosus*)

Listing: --/--; CRPR 2B.2; MSCP Covered
Distribution: Primarily San Diego County and Orange County. Uncommon in Riverside, San Bernardino, and Marin Counties.
Habitat(s): Rocky slopes within chaparral, particularly southern maritime chaparral.
Presence within the Project Site: A total of two individuals were documented in the southern maritime chaparral that occurs in the southeast portion of the project site (Figure 8). An additional 72 individuals were documented adjacent to the project site within the 100-foot additional study area (Figure 8).

Torrey pine (*Pinus torreyana* ssp. *torreyana*) – Naturally-Occurring

Listing: --/--; CRPR 1B.2; MSCP Covered
Distribution: Occurs in only two locations: along the coast near Del Mar (*Pinus torreyana* ssp. *torreyana*) and on Santa Rosa Island (*P. t*. ssp. *insularis*).
Habitat: Torrey pine woodlands and southern maritime chaparral.
Presence within the Project Site: A total of 193 Torrey pines were observed within the study area, including 95 ornamental and 98 naturally-occurring Torrey pines (Appendix G, *Torrey Pine Arborist Survey Report*).

Torrey pines were determined to be ornamental trees if they occurred within the 1980 limits of disturbance, were planted, and occurred in an irrigated and landscape setting within the developed area of the property (Figures 5 and 6). Ornamental Torrey pines were observed throughout the study area. Torrey pines are considered naturally-occurring trees if they occur outside of the 1980 limits of disturbance. All naturally-occurring Torrey pines were observed in the northern and northeastern portions of the study area. A total of eight naturally-occurring individuals were present throughout the northern portion of the project site (Figure 8). A total of 90 additional naturally-occurring Torrey pine trees occur within the additional 100-foot study area outside and adjacent to the project site.

All naturally-occurring Torrey pines are located outside of the project boundary; however, eight naturally-occurring Torrey pines are present within a raised planter bed just south of the northern project boundary. These trees occur above the grade of the developed area to the south and are contained by a large retaining wall. The project has been designed to avoid impacts to naturally-occurring Torrey pines within the project site and vicinity.

5.1.2 Special Status Plant Species with High Potential to Occur

In addition to the Torrey pines, wart-stemmed ceanothus, and Nuttall's scrub oak, a review of the CNDDB report identified nine special status plant species with high potential to occur in the project vicinity, i.e., within the 100-foot survey buffer (Figure 8). These include the following species: Lewis' evening-primrose (*Camissoniopsis lewisii*), long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), San Diego sand aster (*Corethrogyne filaginifolia* var. *incana*), Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*), short-leaved dudleya (*Dudleya brevifolia*), golden Chaetopappa (*Pentachaeta aurea* ssp. *aurea*), south Coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), Cooper's rein orchid (*Piperia cooperi*), and mountain sidalcea (*Sidalcea neomexicana*); however, none of these species were observed during surveys of the site and survey area. The conservation status, habitat, ecology and life history, and potential to occur for each special status species are detailed in Appendix D (Appendix D, S*pecial Status Plant Species Observed or With Potential Occur*).

Dense chaparral that lacks openings in the canopy exists along the eastern and southern borders of the project site and study area (Figure 6). The northern and northeastern portions of the study area are comprised of an open understory where Torrey pines dominate the canopy. While these undeveloped portions of the project site and study area contain undisturbed, sandy chaparral habitats, the eight special status plant species listed above are herbaceous perennials or annuals that require openings within the canopy to persist.

5.2 SPECIAL STATUS ANIMAL SPECIES

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

5.2.1 Special Status Animal Species Observed or Otherwise Detected

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

5.2.2 Special Status Animal Species with High Potential to Occur

Special status animal species with the potential to occur within the project site are included in Appendix E, *Special Status 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. Three special status animal species that were not observed on the project site but were determined to have high potential to occur include Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi)*, San Diego tiger whiptail (*Aspidoscelis tigris stejnegeri*), and Cooper's hawk (*Accipiter cooperii*).

Belding's orange-throated whiptail and San Diego tiger whiptail are known to occur within coastal sage scrub, chaparral, and riparian areas. As mentioned above, the project site and impact areas are almost entirely developed; however, suitable chaparral habitat occurs along the eastern project site boundary and in the southern portion of the site.

Cooper's hawks inhabit forests, riparian areas, and more recently, suburban and urban areas nesting within dense woodlands and forests and isolated trees in open areas. Suitable nesting and foraging habitat for this species occur throughout the project site and study area. 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. Appendix F, *Explanation of Status Codes for Plant and Animal Species*, includes explanations of sensitivity codes.

5.3 JURISDICTIONAL WATERS AND WETLANDS

No jurisdictional waters or wetlands occur within the project site. A storm drain outfall with a small, approximately one foot wide, ephemeral drainage from the outlet is present, approximately 50 feet east of the project boundary (Figure 8). The ephemeral drainage is likely to be considered waters of the U.S. by the USACE, waters of the state by RWQCB, and unvegetated streambed by CDFW. Several arroyo willow trees were observed at the eastern edge of the study area in association with the ephemeral

drainage but are located entirely within the understory of the Torrey Pine Forest that occurs at the top of an upland slope. The willows have established in the area as a result of the urban runoff from the storm drain outfall that occurs at the top of the slope. Without the presence of the storm drain outfall and directed flow of urban runoff in this area, willows would not have been able to establish on an upland slope. Because the willows occur as a result of human activities in a historically non-wetland area, they would be considered artificially created and do not meet the definition of a City wetland.

The several willow trees also would not be characterized as CCC wetlands for the following reasons: (1) their location at the top of an upland slope is only being supported by the presence of a storm drain outfall; (2) the water table is well below the surface in this area and would not support the growth and establishment of the willow trees; (3) this area would not remain saturated during normal rainfall years to support willows, in the absence of the storm drain outfall.

5.4 HABITAT CONNECTIVITY AND WILDLIFE CORRIDORS

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

A portion of a wildlife corridor and habitat linkage (Biological Core and Linkage Area [BCLA]) area bisect the northeastern half of the proposed project site (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, and Carmel Mountain areas to the east, with TPSR, Los Peñasquitos Lagoon, and coastal bluff habitat to the west. Much of the BCLA overlaps developed lands, including the proposed project site. The eastern edges of the existing site contain native habitat that would support wildlife movement, but the majority of the site is developed, which limits its 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 near the eastern project boundary will encroach into the MHPA (Figure 9, *Vegetation and Sensitive Resources/Impacts*). Impacts within the MHPA are required to expand the capacity of the existing water quality basin and prevent the discharge of toxins, chemicals, and other pollutants into 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

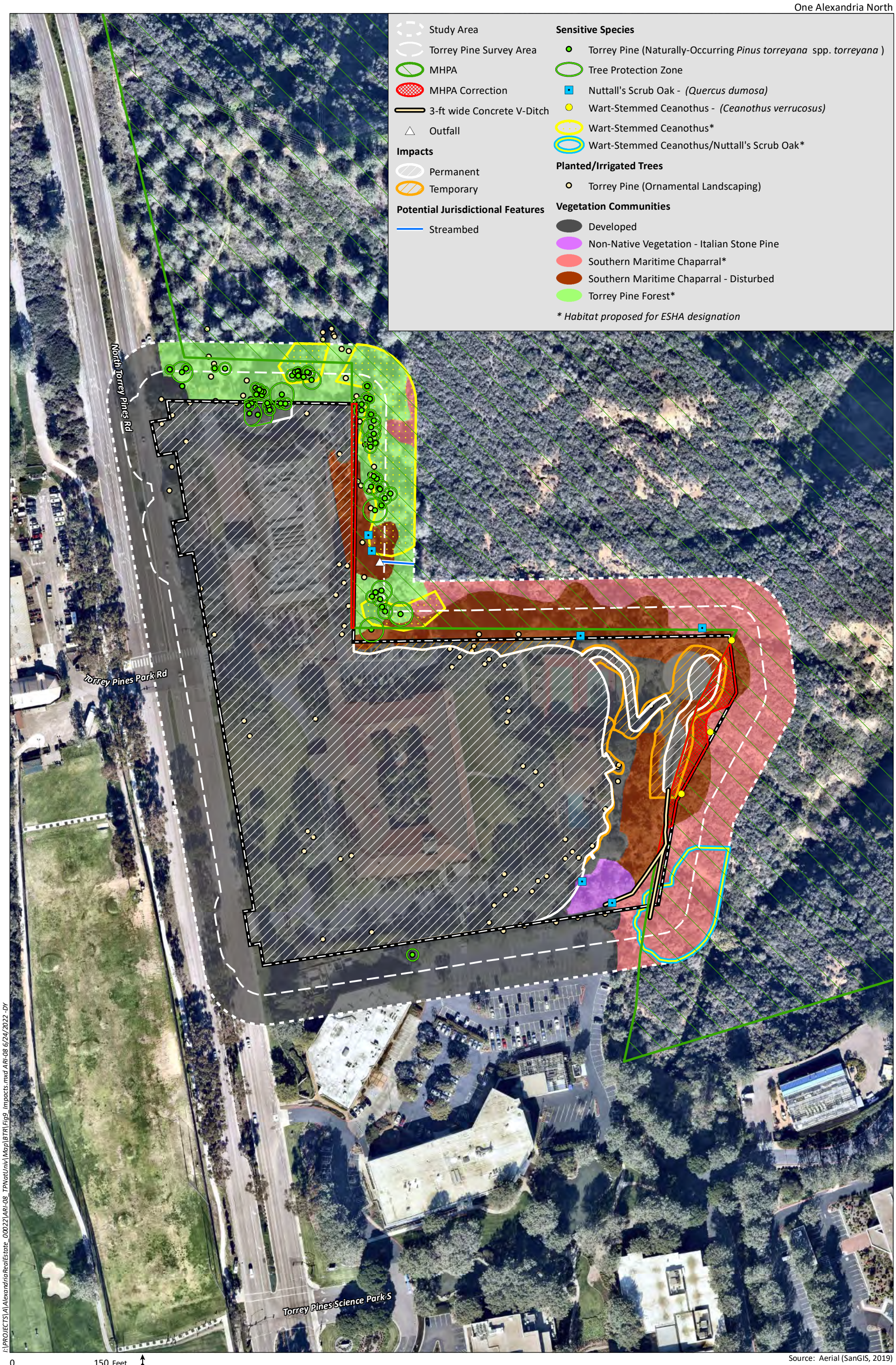
The eastern project boundary overlaps slightly with the current placement of the MHPA. The City MSCP and MHPA were initially developed and adopted in 1997 to delineate core biological resource areas and corridors targeted for conservation (City 1997). While the project boundary supports disturbed southern maritime chaparral habitat, these areas are clearly within the project boundary and were entirely cleared and graded in 1980 during the initial property development (CDP F7919, C-16506, and CUP 83-0600), approximately 17 years prior to the adoption and implementation of the MHPA (Figure 6). 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	
Southern Maritime Chaparral (37C00)	I	<0.1	0.1	<0.1	0.1	0.1
Disturbed Southern Maritime Chaparral (37C00)	I	0.7	0.2	0.9	--	0.9
Torrey Pine Forest (83140)	I	--	--	--	--	--
Non-Native Vegetation – Italian Stone Pine	IV	0.1	--	0.1	--	0.1
Developed (12000)	IV	10.3	<0.1	10.4	--	10.4
	Total	***11.2***	***0.3***	***11.4***	***0.1***	***11.5***

[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.

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



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Source: Aerial (SanGIS, 2019)

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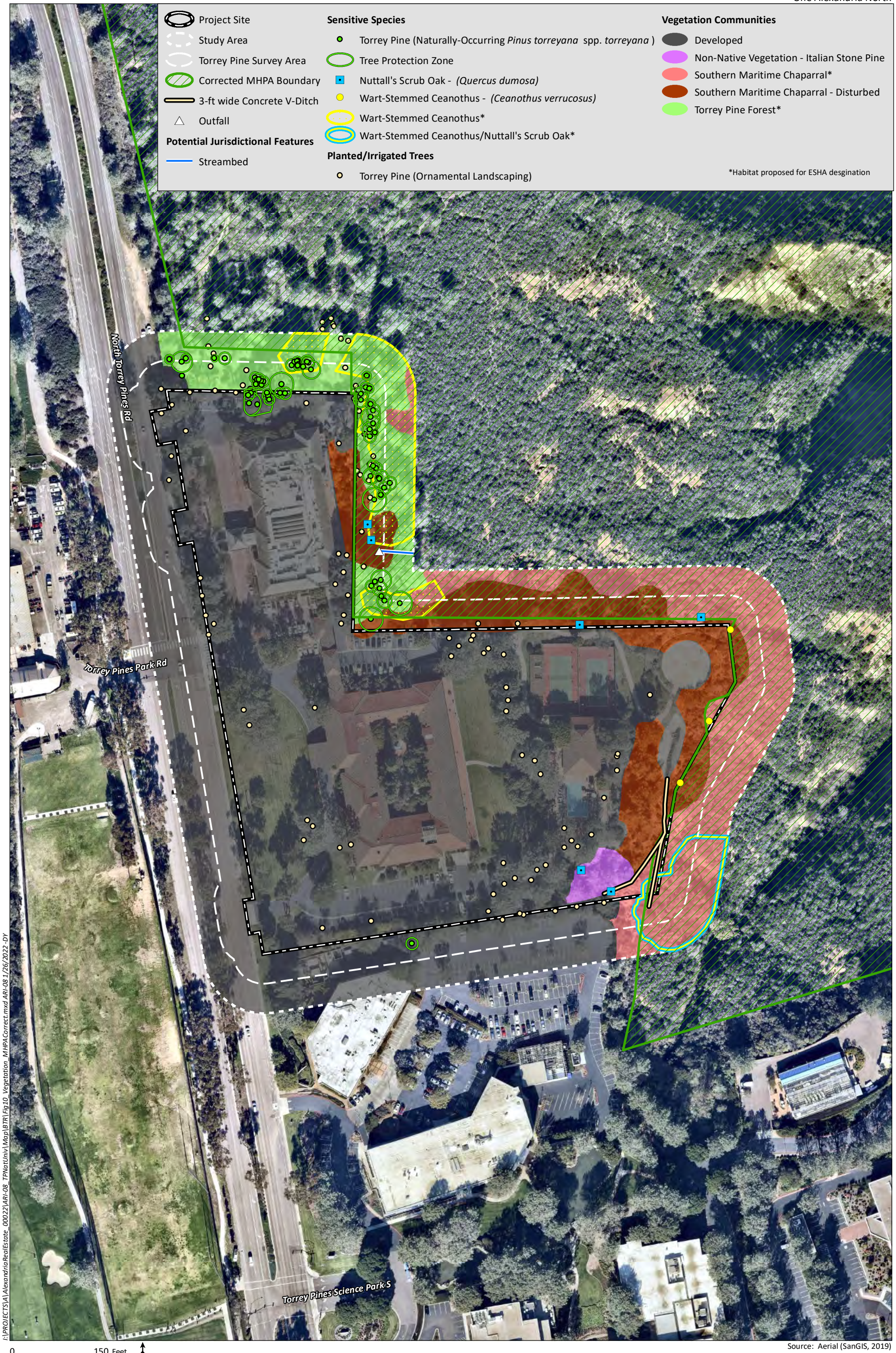
Vegetation and Sensitive Resources/Impacts

Figure 9



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Source: Aerial (SanGIS, 2019)

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Vegetation Communities and Sensitive Resources Post-Boundary Line Correction

Figure 10

6.2 LAND USE ADJACENCY GUIDELINES – SECTION 1.4.3 OF THE MSCP

As mentioned in the section above, a portion of the project site is located within the MHPA and is, therefore, subject to Land Use Adjacency Guidelines designed to minimize 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, noise, lighting, 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 proposed project includes the repair and expansion of an existing water quality basin along the eastern portion of the project. The water quality basin will capture water quality runoff from the site. In addition, the project would replace a portion of the existing, above ground concrete v-ditch outfall with a buried pipe, which would outfall into the remaining concrete v-ditch. 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 drainages 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. Implementation of project requirements identified in Section 8.3 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.

Barrier to incursions, such as fences, will be utilized along the eastern boundary of the project to deter and redirect public access away from the MHPA. The proposed project is a commercial development; therefore, domestic animal incursion and predation are not anticipated within MHPA. Fencing placed along the interface with the MHPA will protect against wildlife entanglement and harm.

6.2.6 Invasive Species

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

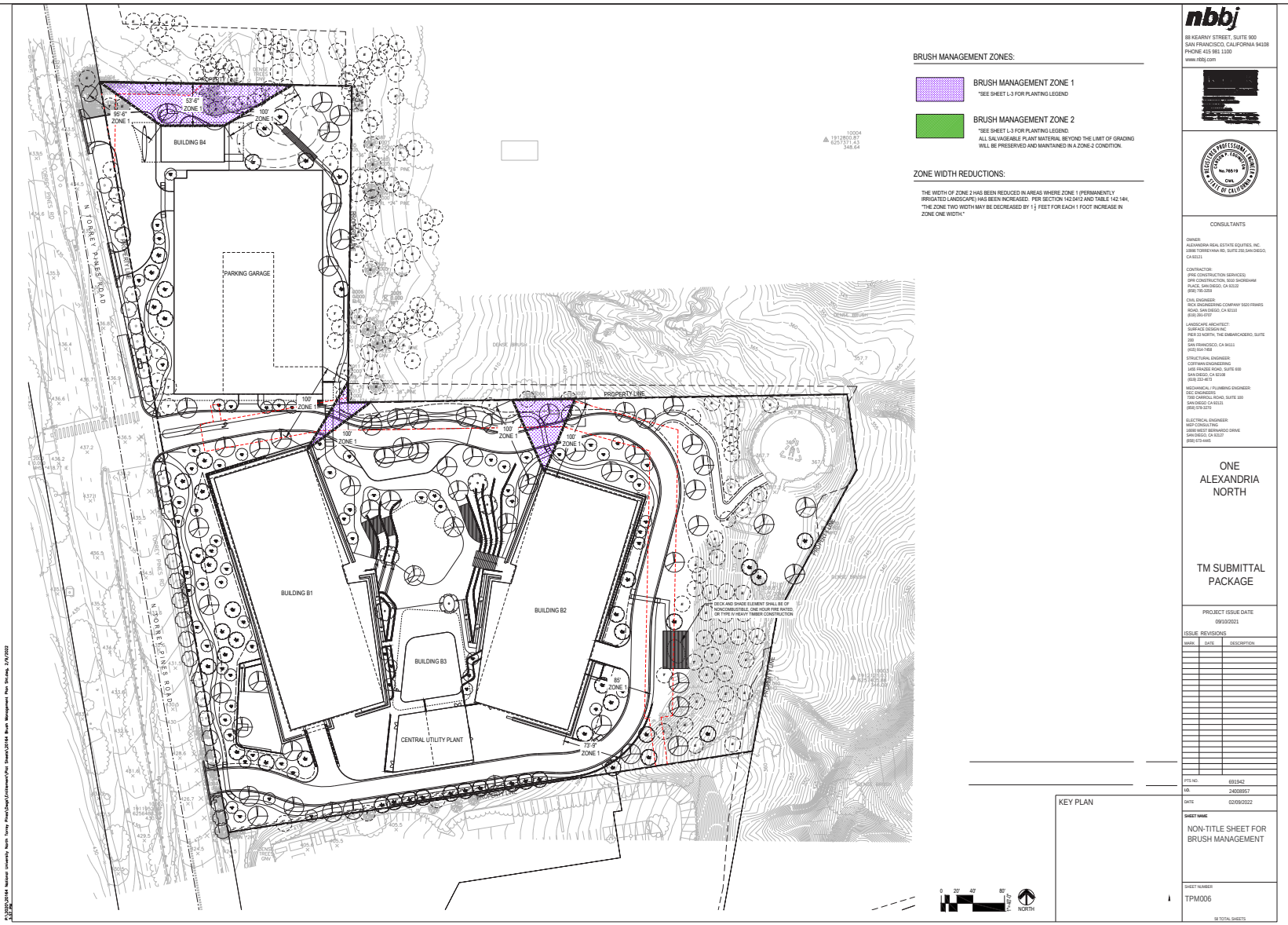
All equipment shall be clean and free of debris and mud prior to entering the project site to reduce the potential for the introduction of invasive plant species. Furthermore, no invasive plant species will be included in the project landscaping.

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). Brush management zones are illustrated on Figure 11, *Brush Management*.

The standard width for Zone 1 is 35 feet, and Zone 2 is 65 feet; however, discussions with the City have determined that Zone 2 is not required as the property is currently in a Zone 1 condition. At the narrowest, the northern portion of the project will implement a 44-foot wide Zone 1, with a minimum 10-foot space from the proposed structures and the adjacent Torrey pine canopies. Alternative compliance measures, such as tempered widows, additional sprinklers, fire walls, and increased fire-resistance rating of walls, will be implemented in locations where adequate brush management zones are not achievable as permitted in the City Brush Management Regulations (San Diego Municipal Code §142.0412) (Figure 11). The parking structure in the northern half of the project is not subject to brush management, as the structure is not habitable; however, the habitable structure at the north end of the structure will comply with brush management regulations.



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Source: NBBJ 2021

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Brush Mangament

Figure 11

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.

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 project will comply with these general management directives as outlined below:

- Mitigation, when required as part of project approvals, shall be performed in accordance with the City's Environmentally Sensitive Lands Ordinance and Biology Guidelines.

Project impacts to sensitive vegetation communities will be mitigated in accordance with the ratios provided in Table 3 of the City's Biology Guidelines (City 2018).

6.4 CONDITIONS OF COVERAGE FOR SENSITIVE SPECIES

Two MSCP-covered plant species were observed within the project site: wart-stemmed ceanothus and Torrey pine. Two MSCP narrow endemic species, short-leaved dudleya, and one MSCP-covered plant species and Del Mar Mesa sand aster, have a high potential to occur in the project vicinity. No MSCP-covered animal species were observed within the project site; however, two MSCP-covered species were determined to have a high potential to occur: Belding's orange-throated whiptail and Cooper's hawk. The MSCP includes conditions for coverage for these species, which are discussed below.

Wart-stemmed Ceanothus

Wart-stemmed ceanothus was determined to be conserved under the MSCP because 67 percent of the major populations would be conserved, and special management actions within preserve areas were anticipated to increase the populations (City 1997). The MSCP's conditions for coverage for wart-stemmed ceanothus include the incorporation of the species in restoration and revegetation efforts within appropriate habitat types. Additionally, area-specific management directives for the protected populations within preserve areas must include specific measures to increase populations, address the autecology and natural history of the species, and reduce the risk of catastrophic fire.

The proposed project would impact one wart-stemmed ceanothus and would comply with the conditions for coverage for this species through replacement planting of at least two individuals within the MHPA on-site or within the TPSR, in conformance with project requirements identified in Section 8.3.

Torrey Pine

Torrey pine was determined to be adequately conserved under the MSCP because the single naturally-occurring populations within Torrey Pines State Reserve were conserved and appropriately managed (City 1997). There are no conditions for coverage for Torrey pine.

All of the naturally-occurring Torrey pine trees growing within and immediately adjacent to the project site will be avoided during project construction. This will be accomplished through the implementation of the following measures to ensure avoidance of naturally-occurring Torrey pine.

- The TPZ for all naturally-occurring Torrey pine trees will be included on all construction documents and grading plans. The dripline of each naturally-occurring Torrey pine tree on-site and immediately adjacent to the site will be flagged/fenced for avoidance to establish a TPZ. No equipment parking, staging, or ground disturbance shall occur within the TPZ.

- Each avoided naturally-occurring Torrey pine tree on and immediately adjacent to the site will be monitored by a certified arborist for a period of two years following construction to ensure that the Torrey pine trees remain healthy. If the certified arborist determines that any naturally-occurring Torrey pine trees do not survive as a result of construction activities, those trees would be replaced at a 3:1 ratio.

- The replacement trees would be planted within the MHPA either on-site or adjacent to the site, and would be monitored for a period of five years to confirm successful establishment, with the corresponding success criteria being 100 percent survival, less than 15 percent weed cover, and no irrigation for the final two years.

Short-Leaved Dudleya

Short-leaved dudleya is determined to be adequately conserved under the MSCP because 100 percent of the major populations would be conserved (City 1997). The MSCP's conditions for coverage for short-leaved dudleya include area-specific management directives must include specific measures to protect against detrimental edge effects to this species, species-specific monitoring, and maintenance of surrounding habitat for pollinators. A site-specific monitoring plan and management plans/directives are required for the populations on Del Mar Mesa, Carmel Mountain, and Crestview Canyon, which occur outside of the project site.

The proposed project would comply with the conditions for coverage for this species through the implementation of standard City requirements for construction in the vicinity of biological resources. These requirements, identified in Section 8.3, would be included as conditions of project approval and include a pre-construction survey for special status plant species within 20 feet of all anticipated project impacts. In addition, orange construction fencing or equivalent will be placed along the limits of disturbance adjacent to sensitive biological habitats, including the flagging of special status plant species. No impacts to suitable habitat are proposed; therefore, direct impacts to short-leaved dudleya are not anticipated. The species has a moderate potential to occur adjacent to the project site; however, this species was not observed during surveys within the study area. Barriers to incursion are proposed along the northern and eastern boundaries of the project site, which would further reduce the potential for indirect impacts to short-leaved dudleya that may occur adjacent to the project site.

Del Mar Mesa Sand Aster

Del Mar Mesa sand aster was determined to be conserved under the MSCP because 48 percent of the major populations, 57 percent of known localities, and 67 percent of potential habitat would be conserved (City 1997). The MSCP's conditions for coverage for Del Mar Mesa sand aster include area-specific management directives that must include specific measures to protect against detrimental edge effects to this species and measures to reduce the risk of catastrophic fire.

The proposed project would comply with the conditions for coverage for this species through the implementation of standard City requirements for construction in the vicinity of biological resources. These requirements, identified in Section 8.3, would be included as conditions of project approval and include a pre-construction survey for special status plant species within 20 feet of all anticipated project impacts. In addition, orange construction fencing or equivalent will be placed along the limits of disturbance adjacent to sensitive biological habitats, including the flagging of special status plant species. No impacts to suitable habitat are proposed; therefore, direct impacts to Del Mar Mesa sand aster are not anticipated. The species has a high potential to occur adjacent to the project site; however, this species was not observed during surveys within the study area. Barriers to incursion are proposed along the northern and eastern boundaries of the project site, which would further reduce the potential for indirect impacts to Del Mar Mesa sand aster that may occur adjacent to the project site.

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 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 required by the MSCP, 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 surveys would be conducted no more than three days prior to the start of construction between February 1 through September 1, and if nesting Cooper's hawk are detected, the 300-foot buffer would be established.

Belding's Orange-Throated Whiptail

The Belding's orange-throated whiptail was determined to be conserved under the MSCP because 59 percent of the potential habitat and 62 percent of the known point occurrences would be conserved, and habitat linkages between large blocks of protected lands would also be conserved in a functional manner (City 1997). The MSCP's conditions for coverage include measures to address edge effects.

Conditions of coverage for the Belding's orange-throated whiptail would be satisfied through the implementation of standard City requirements for construction in the vicinity of biological resources. These requirements identified in Section 8.3 would be included as conditions of project approval and include placement of orange construction fencing, or equivalent, along the limits of disturbance adjacent to sensitive biological habitats to reduce edge effects on this species.

6.5 VERNAL POOL HABITAT CONSERVATION PLAN CONSISTENCY

In October 2009, the USFWS and 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 gravelly sandy loam and unsuitable 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.

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 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 and indirect 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 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:

- 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 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 southern maritime chaparral, 0.3 acre of disturbed southern maritime chaparral, less than 0.1 acre of non-native vegetation, and 10.0 acres of developed area (Figure 9; Table 4, *Impacts to Vegetation Communities*). All impacts to southern maritime chaparral (including disturbed) will require mitigation. No impacts will occur within the MHPA.

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		
Sensitive Upland Habitat					
Southern Maritime Chaparral	I	<0.1	0.1	<0.1	0.1
Disturbed Southern Maritime Chaparral (37C00)	I	0.9	--	0.3	0.6
Sensitive Upland Habitat Total		**0.9**	**0.1**	**0.3**	**0.7**
Non-sensitive Upland Habitat					
Non-Native Vegetation – Italian Stone Pine	IV	0.1	--	<0.1	<0.1
Developed (12000)[2]	VI	10.4	--	10.0	0.4
Non-Sensitive Upland Habitat Total		**10.5**	**--**	**10.0**	**0.5**
Total		***11.4***	***0.1***	***10.3***	***1.2***

[1] All impacts will occur outside of the MHPA once the Boundary Line Correction has been accepted. Acreages rounded to the nearest 0.1-acre; total reflects rounding.

Impacts to southern maritime chaparral are considered significant and require mitigation as required by mitigation measure (MM) **MM-BIO-1**.

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; however, portions of the proposed project footprint would impact sensitive uplands habitats where special status plant species have been documented. Project impacts on special status plant species are described below.

7.3.1 Special Status Plant Species

Three special status plant species were observed in the project site during project surveys: wart-stemmed ceanothus, Nuttall's scrub oak, and Torrey pine. These species are not federally listed, state listed, or City narrow endemic plant species. Nuttall's scrub oak has a CRPR of 1B.1. Wart-stemmed ceanothus and Torrey pine are both covered under the MSCP and have a CRPR of 2B.2 CRPR 1B.2, respectively. Generally, impacts to plant species with a CRPR of 1 or 2 are considered potentially significant. Impacts to wart-stemmed ceanothus and Torrey pines are described in further detail below.

The project has been designed to avoid direct impacts to naturally-occurring Torrey pine trees, and no removals of naturally-occurring Torrey pine trees are expected. Potential impacts to naturally-occurring Torrey pine trees could occur if construction activities impact the critical root zones (CRZs) of these trees, which are defined as the ground area beneath the tree canopy. Potential impacts could occur through compaction of the CRZ; damage to critical roots through pruning, trenching, or excessive grade changes; and/or through damage to tree trunks and branches. Tree protection and general measures to avoid and minimize impacts to naturally-occurring Torrey pines would be implemented as a condition of approval.

Tree protection zones (TPZs) for each naturally-occurring Torrey pine tree on, and immediately adjacent to, the site would be established. A TPZ will help ensure that a tree is protected during construction, has enough space for root and branch growth, and will receive adequate supplies of soil nutrients, air, and water.

The proposed project would result in impacts to one wart-stemmed ceanothus individual outside of the MHPA (Figure 9). Wart-stemmed ceanothus within the project site are part of a larger population that occurs within the surrounding area and do not represent a geographically isolated or significant population. These species are commonly found north and east of the site within the Torrey Pines State Nature Reserve. Project impacts to individual wart-stemmed ceanothus would not jeopardize the continued viability of the species within the region, as the species will continue to persist within the project site and the surrounding preserved habitat; however, impacts to wart-stemmed ceanothus are still considered significant and require mitigation.

Implementation of project requirements described in Section 8.3 during construction activities, which include pre-construction surveys, flagging of individuals, and biological monitoring, would provide additional protections for the species. Additionally, project requirements will ensure the impacted wart-stemmed ceanothus is replaced at a minimum 2:1 ratio.

7.3.2 Special Status Animal Species

No special status animal species were detected within the project site during project surveys; however, the project would result in impacts to sensitive uplands habitats where special status animal species have the potential to occur. Three animal species were determined to have a high potential to occur: Belding's orange whiptail, San Diego tiger whiptail, and Cooper's hawk. None of these species are federally or state listed species, or City narrow endemic species. Belding's orange-throated whiptail and Cooper's hawk are CDFW Watch List species and MSCP covered species. San Diego tiger whiptail is a CDFW Species of Special Concern. Implementation of mitigation measures described in Section 8 during construction activities will help to prevent potential impacts to the above-mentioned species.

The project could potentially impact Belding's orange-throated and San Diego tiger whiptail individuals through the operation of heavy equipment within and adjacent to suitable upland habitats with the potential to support these species. Potential impacts to Belding's orange whiptail and San Diego tiger whiptail are considered less than significant as suitable habitat for these species would continue to be preserved within the open space parcel. Furthermore, a sufficient amount of habitat for these species has already been conserved within the surrounding area (i.e., MHPA and Torrey Pines State Nature Reserve).

7.4 IMPACTS TO JURISDICTIONAL RESOURCES

The proposed project would replace an existing academic facility with a commercial development, and no jurisdictional resources occur within the project site. No City or Coastal wetlands occur on-site or within 100 feet of the project site. Therefore, the project would not impact jurisdictional resources and would have any impacts to wetland buffers.

7.5 WILDLIFE MOVEMENT AND NURSERY SITES

Although the majority of the site is developed, the northeastern portion of the project site is located within an MSCP Core Linkage Area that was broadly defined in 1997 as part of the MSCP (Figure 4). Wildlife habitat within the corridor/linkage is found along the northern and eastern portions of the project site and directly adjacent to existing habitat. The proposed project will impact 0.3 acre of native habitat along the eastern portion of the site, largely in association with the improvements to a water quality basin and associated outfall replacement and improvement. 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 an 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 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 the City's MHPA Land Use Adjacency Guidelines designed to edge effects 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 in the eastern portion of the project area; however, an MHPA boundary line correction justification is provided in Appendix H. 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 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 adjacent to Torrey Pine Forest and southern maritime chaparral (including disturbed), which are two of the communities categorized as ESHA, as described in Section 3.2.3. Three sensitive species, naturally-occurring Torrey pine, wart-stemmed ceanothus, and Nuttall's scrub oak,

occur within these communities. Torrey Pine Forest and southern maritime chaparral are both considered rare habitats, and both communities are easily disturbed/degraded by human activities.

The disturbed phase of southern maritime chaparral contains a greater amount of non-native species, and these areas do not support sensitive plant or wildlife species. This community has already been degraded and would not be considered to be easily degraded beyond its existing state. As a result of the greater preponderance of non-native species, lack of sensitive species, and the disturbed and degraded nature of this community, the disturbed phase of southern maritime chaparral is not considered to meet the definition of ESHA.

As described in Table 4, the project would result in temporary impacts to less than 0.1 acre, approximately 500 square feet, of proposed ESHA habitat, in the form of undisturbed southern maritime chaparral. As stated in the City's Biology Guidelines (City 2018), impacts to less than 0.1 acre of sensitive upland habitats would be less than significant and do not require mitigation. Regardless, temporary impacts would be restored and revegetated. These necessary impacts are the result of the outfall associated with the water quality basin described in Section 6.2 above (Figure 9). These impacts would constitute less than 0.5 percent of potential ESHA within the study area, and the impacts are necessary to allow for the required water quality basin on the site.

The project will not conflict with the North City LCP because the temporary impacts to ESHA will be revegetated following construction. The project will provide protection to the habitats within the Torrey Pines State Reserve and would not conflict with any of the LCP Specific Language in the University-La Jolla LCP Addendum related to ESHA (City 1981).

7.9 INVASIVE 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 plant species, and no invasive plant species will be included in project landscaping. The project would not result in the introduction or spread of invasive plant species within the conserved area.

7.10 CUMULATIVE IMPACTS

Adverse cumulative impacts are not expected from the implementation of the proposed project. Projects which 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 MEASURES

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 SENSITIVE UPLAND HABITATS

Mitigation for direct impacts to 0.3 acre of Tier I southern maritime chaparral (including disturbed) shall

occur at a minimum 2:1 ratio. Mitigation ratios are in accordance with the City's Biology Guidelines (City 2018) and assume all mitigation will occur outside of the MHPA (Table 5, *Mitigation Requirements for Impacts to Sensitive Communities*). Implementation of the habitat mitigation requirements will reduce the impacts to below a level of significance. Impacts to developed lands do not require mitigation.

Table 5
MITIGATION REQUIREMENTS FOR IMPACTS TO SENSITIVE COMMUNITIES

Vegetation Community	Habitat Tier	Impacts[1]	Mitigation Ratio[2]	Total Mitigation Requirement[1]
Southern Maritime Chaparral (37C00, including disturbed)	I	0.3	2:1	**0.6**
	TOTAL	**0.3**	**--**	**0.6**

[1] All impacts will occur outside of the MHPA once the Boundary Line Correction has been accepted. Acreages rounded to the nearest 0.1-acre; total reflects rounding.

[2] Assumes all mitigation will occur outside of the MHPA at the Callan Road Mitigation Site (APN 340-010-45). Mitigation outside of the MHPA for would increase to a 2:1 ratio for impacts to southern maritime chaparral outside of MHPA.

The Callan Road mitigation (APN 340-010-45) site is located outside of the MHPA and immediately north of Callan Road and west of Torreyana Road (Figure 12, *Callan Road Mitigation Site*).

The Callan Road mitigation site supports Tier I southern maritime chaparral and Tier II Diegan coastal sage scrub, as well as eucalyptus woodland, disturbed habitat, and developed land (Figure 12; Table 6, *Callan Road Mitigation Site Existing Vegetation Communities/Land Cover Types*). The mitigation site also supports special status plant and animal species. Two special status plant species were observed within the mitigation site: 23 wart-stemmed ceanothus and six Nuttall's scrub oak shrubs. One special status animal species, San Diego tiger whiptail, was observed within the mitigation site, and Diegan coastal sage scrub within the mitigation has the potential to support the federally listed coastal California gnatcatcher (Figure 12).

As a condition of permit approval, a covenant of easement will be recorded against the title of the property to preserve the Callan Road mitigation site in perpetuity. The project proponent will act as the resource manager to ensure the property is managed and monitored in a manner consistent with Section 1.5 of the Preserve Management of the City's MSCP Subarea Plan and area-specific management directives.

Table 6
CALLAN ROAD MITIGATION SITE EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES

Vegetation Community/Land Cover Type[1]	MSCP Tier[2]	Available Acres[3]	Required Mitigation (acres)	Preserved in Excess (acres)[4, 5]
Southern Maritime Chaparral (37C00)	I	1.2	0.6	0.6
Diegan Coastal Sage Scrub (32500)	II	0.4	-	0.4
Eucalyptus Woodland (79100)	IV	0.2	-	0.2
Disturbed Habitat (11300)	IV	0.2	-	0.2
Developed (12000)	IV	0.8	-	0.8
	TOTAL	**3.8**	**0.6**	**2.2**

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

[2] Tiers refer to the City's MSCP Subarea Plan habitat classification system.

[3] Acreages rounded to the nearest 0.1 acre for uplands; total reflects rounding.

Project Site
Callan Road Mitigation Site
City of San Diego MHPA

Vegetation

Diegan Coastal Sage Scrub
Southern Maritime Chaparral
Eucalyptus Woodland
Disturbed Habitat
Urban/Developed

Special Status Species Observations

San Diego tiger whiptail (*Aspidoscelis tigris stejnegeri*)
Wart-stemmed Ceanothus (*Ceanothus verrucosus*)
Nuttall's Scrub Oak (*Quercus dumosa*)

Callan Rd
North Torrey Pines Pl
North Torrey Pines Rd
Torreyana Rd
Road To The Cure

0 200 Feet

N

Source: Aerial (SanGIS, 2017)

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HELIX Environmental Planning

Callan Road Mitigation Site

Figure 12

Mitigation for impacts to the 0.3-acre southern maritime chaparral habitat would occur at a 2:1 ratio through the off-site preservation of 1.6 acres of existing southern maritime chaparral habitat at the Callan Road mitigation site (APN 340-010-45). Of the 1.6 acres of southern maritime chaparral, 1.2 acres remain available for use. With the implementation of the mitigation, impacts to southern maritime chaparral would be less than significant. An additional 0.6 acre of southern maritime chaparral and 0.4 acre of Diegan coastal sage scrub would be preserved in excess of the project's mitigation obligation and would remain unassigned and available for future mitigation opportunities, subject to City review and approval on a project-by-project basis.

8.2 MITIGATION FOR IMPACTS TO SPECIAL STATUS SPECIES

8.2.1 Mitigation for Impacts to Special Status Plant Species

The project would result in direct impacts to one wart-stemmed ceanothus individual. Project impacts to one wart-stemmed ceanothus would not jeopardize the continued viability of the species within the region, as wart-stemmed ceanothus would continue to persist both within the project site and within the surrounding preserved habitat. Furthermore, the project proposes off-site preservation of the 3.2-acre Callan Road mitigation site to offset project impacts to sensitive vegetation communities, discussed in detail in Section 8.1.

Mitigation for project impacts to a single wart-stemmed ceanothus would be accomplished through the replacement of the species at a 2:1 ratio within undeveloped portions of the property. In addition, 23 wart-stemmed ceanothus would be preserved within the 3.2-acre off-site Callan Road mitigation site.

8.3 STANDARD BIOLOGICAL RESOURCES PROTECTION DURING CONSTRUCTION

The following avoidance and minimization project requirements shall be implemented and included as conditions of project approval to ensure compliance with the City's Biology Guidelines (City 2018) and MSCP Subarea Plan (City 1997), and to prevent inadvertent impacts to sensitive biological resources adjacent to the project footprint.

Prior to the issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the Environmental Designee shall verify that the following project requirements are shown on the construction plans:

I. Prior to Construction

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

B. **Pre-construction Meeting -** The Qualified Biologist shall attend the pre-construction meeting, discuss the project's biological monitoring program, and arrange to perform

any follow-up mitigation measures and reporting, including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

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

D. **Biological Construction Mitigation/Monitoring Exhibit -** The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents in C above. In addition, it will include: restoration/revegetation plans, wart-stemmed ceanothus salvage, TPZ avoidance areas, avian or other wildlife surveys/survey schedules, the timing of surveys, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. **Special Status Plant Avoidance** - Prior to the removal of vegetation, a Qualified Biologist shall conduct a pre-construction survey for special status plant species within a 20-foot buffer of all anticipated project impacts to identify the location and number of any individuals present. Construction activities shall avoid impacts to special status plant species found within the impact area to the extent feasible. If impacts to newly identified sensitive status plant species cannot be completely avoided, then efforts shall be made to trim any individual shrubs and limit root disturbance, which will allow for individuals to resprout from the base. If construction activities can avoid root disturbance, no additional mitigation would be required.

F. **Resource Delineation -** Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats, the tree protection zone, and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species) during construction. Appropriate steps/care should be taken to minimize the attraction of nest predators to the site.

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

II. During Construction

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

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

III. Post Construction Measures

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

9.0 LIST OF PREPARERS

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

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Appendix A

Representative Site Photos

View of existing development within project site (looking east).

View of naturally occurring Torrey Pines (Pinus torreyana) north of the project site (looking northeast).

Torrey pine forest and disturbed southern maritime chaparral east of the project site (looking south).

Ornamental Torrey Pines (Pinus torreyana) within existing development in the project site (looking north).

Appendix B

Plant Species Observed

Appendix B
Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Aizoaceae	*Carpobrotus edulis**	iceplant	TPF, SMC
Anacardiaceae	*Malosma laurina*	laurel sumac	TPF, SMC
	Rhus integrifolia	lemonade berry	TPF, SMaC, SWS, SMC
	*Schinus terebinthifolius**	narrow leaved bedstraw	SMC
Asteraceae	*Artemisia californica*	California sagebrush	TPF, SMC
	Baccharis pilularis	coyote brush	TPF, SMC
	*Centaurea melitensis**	tocalote	TPF
	Eriophyllum confertiflorum var. confertiflorum	golden yarrow	TPF
	Hazardia squarrosa	saw toothed goldenbush	SMaC, SMC
	*Hypochaeris glabra**	smooth cat's ear	TPF
	Isocoma menziesii	white flowered goldenbush	TPF
	Pseudognaphalium californicum	ladies' tobacco	TPF
	*Sonchus oleraceus**	sow thistle	TPF
	Uropappus lindleyi	silver puffs	TPF
Bignoniaceae	*Tecoma capensis**	cape honeysuckle	TPF
Boraginaceae	*Eucrypta sp.*	eucrypta	SMC
	Pectocarya sp.	pectocarya	TPF
Cucurbitaceae	*Marah macrocarpa*	chilicothe	TPF
Cistaceae	*Helianthemum scoparium*	broom rose	TPF, SMaC, SMC
Ericaceae	*Xylococcus bicolor*	mission manzanita	SMaC, SMC
Euphorbiaceae	*Euphorbia peplus**	petty spurge	SMaC
Fabaceae	*Acmispon glaber*	deerweed	TPF, SMC
	*Medicago polymorpha**	California burclover	SMC
	*Melilotus indicus**	annual yellow sweetclover	SMaC
Fagaceae	*Quercus dumosa+*	Nuttall's scrub oak	SMaC, SMC
Geraniaceae	*Erodium botrys**	big heron bill	TPF
Lamiaceae	*Salvia mellifera*	black sage	TPF, SMaC, SMC
Malvaceae	*Malacothamnus densiflorus*	many-flowered bush mallow	SMaC
Myrsinaceae	*Lysimachia arvensis**	scarlet pimpernel	SMaC
Phrymaceae	*Diplacus puniceus*	sticky monkeyflower	TPF
Pinaceae	*Pinus torreyana ssp. torreyana+*	Torrey pine	TPF
Plantaginaceae	*Plantago ovata*	desert plantain	TPF
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat	TPF
Rhamnaceae	*Ceanothus verrucosus+*	wart-stemmed ceanothus	SMaC, SMC
	Frangula californica	California coffeeberry	TPF
	Rhamnus ilicifolia	evergreen buckthorn	SMaC
Rosaceae	*Adenostoma fasciculatum*	chamise	SMaC
	Heteromeles arbutifolia	toyon	TPF, SMaC, SMC
Rubiaceae	*Galium angustifolium*	narrow leaved bedstraw	SMaC, SMC
Rutaceae	*Cneoridium dumosum*	bushrue	SMaC
Salicaceae	*Salix lasiolepis*	coyote brush	SWS
Solanaceae	*Solanum parishii*	Parish's nightshade	TPF
Scrophulariaceae	*Myoporum laetum**	ngaio tree	TPF
	Scrophularia californica	California bee plant	SMaC
Agavaceae	*Yucca schidigera*	Mohave yucca	TPF
Arecaceae	*Washingtonia robusta**	Mexican fan palm	SMaC, SMC
Asphodelaceae	*Asphodelus fistulosus**	onionweed	SMaC

Appendix B (cont.)
Plant Species Observed

Family	Scientific Name*,†	Common Name	Habitat[1]
Cyperaceae	*Cyperus involucratus**	umbrella plant	SWS
Juncaceae	*Juncus mexicanus*	Mexican rush	TPF
Poaceae	*Avena barbata**	slim oat	TPF
	*Brachypodium distachyon**	purple false brome	SMaC
	*Bromus madritensis ssp. madritensis**	foxtail chess	TPF, SMC
	*Cortaderia selloana**	pampas grass	SMaC, SMC
	*Cynodon dactylon**	Bermuda grass	SMC
	*Festuca myuros**	rattail sixweeks grass	TPF
	*Melinis repens**	natal grass	SMC
	*Schismus barbatus**	old han schismus	TPF
	Stipa lepida	foothill needle grass	SMaC
	Stipa pulchra	purple needle grass	TPF
Themidaceae	*Dichelostemma capitatum*	blue dicks	TPF

† Special Status Species

* Non-native Species

[1] SMaC = Southern Maritime Chaparral; SMC=Southern Mixed Chaparral; TPF=Torrey Pines Forrest; SWS=Southern Willow Scrub

Appendix C

Animal Species Observed or Otherwise Detected

Appendix C
Animal Species Observed or Otherwise Detected

Taxon		Scientific Name	Common Name
Order	**Family**		
VERTEBRATES			
Birds			
Accipitriformes	Accipitridae	*Accipiter striatus*	Sharp-shinned Hawk
Apodiformes	Trochilidae	*Calypte anna*	Anna's Hummingbird
	Trochilidae	*Selasphorus sasin*	Allen's Hummingbird
Gruiformes	Rallidae	*Rallus obsoletus yumanensis*	Yuma Ridgway's Rail
Passeriformes	Corvidae	*Aphelocoma californica*	California Scrub-Jay (formerly Western Scrub-Jay, coastal)
	Corvidae	*Corvus brachyrhynchos*	American Crow
	Fringillidae	*Haemorhous mexicanus*	House Finch
	Fringillidae	*Spinus psaltria*	Lesser Goldfinch
	Passerellidae	*Melospiza melodia*	Song Sparrow
	Passerellidae	*Melozone crissalis*	California Towhee
	Sylviidae	*Chamaea fasciata*	Wrentit
	Troglodytidae	*Thryomanes bewickii*	Bewick's Wren
	Tyrannidae	*Sayornis nigricans*	Black Phoebe
Amphibians			
Anura	Hylidae	*Pseudacris regilla*	Pacific treefrog

Appendix D

Sensitive Plant Species with Potential to Occur

Appendix D
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Abronia maritima	sticky sand verbena	--/--, CNPS Rank 4.2	Perennial herb. Occurs in coastal areas of central and southern California; nearly extirpated in southern California. Grows in prostrate mats on well-developed beach dunes away from the heavy foot traffic of humans, which has severely degraded habitat on most southern California beaches. Flowering period: February to November. Elevation: below 330 feet (100 meters).	**Not Likely to Occur.** Although this species has been reported within five miles of the project site, the project site lacks suitable dune habitat to support this species. The project site is on the upper end of the known elevation range for this species.
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 five miles of the project site, the project site 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 Expected.** Suitable coastal habitat is present within the project site; however, the project site and study area consist of gravelly, loamy sand. This species has been reported within TPSP (CNDDB 2021). The project site 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 five miles of the project site, the project site lacks suitable clay soils needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Low Potential to Occur .** Suitable coastal bluff habitat is present within the project site and this species has been reported within 1 mile of the project site; however, this is conspicuous perennial species and was not observed during project surveys.
Ambrosia monogyra	singlewhorl burrobrush	--/--, CNPS Rank 2B.2	Perennial shrub. Found on sandy soils within washes and dry riverbeds within chaparral communities. Flowering period: September to November. Elevation: below 1,640 feet (500 meters).	**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 Project Site and the site lacks suitable wash and dry riverbed habitat.
Ambrosia pumila	San Diego ambrosia	FE/--, CNPS Rank 1B.1, MSCP Covered, MSCP NE	Perennial herb. Occurs on sandy loam or clay, sometimes alkaline, soils. Found in native grassland, valley bottoms, dry drainages, stream floodplain terraces, and vernal pool margins. Also occurs on slopes, disturbed places, and in coastal sage scrub or chaparral. Flowering period: April to July. Elevation: 164 to 1,969 feet (50 to 600 meters).	**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 Project Site and the site lacks suitable habitats.
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).	**Low Potential to Occur.** Although this species has been reported within TPSP, the site lacks suitable sage scrub habitat.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

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.	**Low Potential to Occur.** Suitable coastal chaparral habitat is present within the project site and this species has been reported directly south of the project site; however, 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).	**Moderate Potential to Occur.** Suitable sandy, mesic habitat is present within the project site and this species has been reported within the immediate vicinity of the project site. This conspicuous perennial species was not observed during project surveys.
Asplenium vespertinum	western spleenwort	--/--, CNPS Rank 4.2	Perennial rhizomatous herb. Occurs in chaparral, cismontane woodland, and coastal scrub along rocky bluffs. Flowering period: February to June. Elevation: 590 to 3280 feet (180 to 1,000 meters).	**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 Project Site and the site is west of the known range of this species.
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 Expected.** Although this species has been reported within five miles of the project site, the project site lacks suitable micro-habitats, such as moist sandy depressions, needed to support this species. The project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Atriplex coulteri	Coulter's saltbush	--/--, CNPS Rank 1B.2	Perennial herb. Occurs on alkaline or clay soils within coastal dunes, coastal bluffs, coastal sage scrub, and grasslands. Flowering period: March to October. Elevation: below 1,510 feet (460 meters).	**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 Project Site and the site is lacks clay soils.
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).	**Low Potential to Occur.** Although this species has been reported within TPSP, the project site 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).	**Low Potential to Occur.** Suitable maritime chaparral and Torrey pine forest habitat is present within the project site and this species has been reported 1 mile east of the project site; however, this is a conspicuous perennial species that 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).	**Low Potential to Occur.** Although this species has been reported within TPSP, the project site lacks suitable micro-habitats, such as open hills within chaparral. The project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks grassland habitat near mima mound topography needed to support this species.
Brodiaea filifolia	thread leaved brodiaea	FT/SE, CNPS Rank 1B.1, MSCP Covered	Perennial bulbiferous herb. Often associated with vernal pools and known from habitats including valley grassland, foothill woodland, coastal sage scrub, freshwater wetlands, and wetland-riparian. Flowering period: March to June. Elevation: 82 to 2821 feet (25 to 860 meters).	**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 Project Site and the site lacks suitable habitat.
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks mesic habitat typically needed to support this species.
Calandrinia breweri	Brewer's calandrinia	--/--, CNPS Rank 4.2	Annual herb. Occurs within chaparral or coastal scrub on sandy or loamy soil, disturbed sites, and after burns. Flowering Period: January to June. Elevation: 32 to 4,000 feet (10 to 1,220 meters).	**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 Project Site and the site lacks suitable chaparral or coastal scrub habitat.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Camissoniopsis lewisii	Lewis' evening-primrose	--/--, CNPS Rank 3	Annual herb. Occurs on sandy or clay soils within grasslands, coastal scrub, cismontane woodland, and coastal bluffs and dunes. Flowering period: March to June. Elevation: below 984 feet (300 meters).	**High Potential to Occur. Not Observed.** Suitable sandy bluff habitat is present within the project site and this species has been within TPSP. This species was not observed during project surveys.
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 Expected.** Although this species has been reported within five miles of the project site, the project site lacks habitat typically needed to support this species. The project site is located outside of the known elevation range for this species
Ceanothus otayensis	Otay mountain ceanothus	--/--, CNPS Rank 1B.2	Perennial shrub. Found in chaparral dominated by chamise and ceanothus species on metavolcanics or gabbroic soils. Mild soil disturbances may enable this plant to pioneer on road cuts and in burn areas. Only known from Otay Mountain in San Diego County. Flowering Period: January to April. Elevation: 1,960 to 3,600 feet (600 to 1,100 meters).	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the Project Site and the site lacks suitable metavolcanic soils. The site is also northwest of the known range of this species. The project site is located outside of the known 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).	**Species Present.** A total of 74 individuals were present throughout the eastern portion of the survey area.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Centromadia parryi ssp. *australis*	Southern tarplant	--/--, CNPS Rank 1B.1	Annual herb. Found at the margins of salt marshes, vernally mesic areas within grasslands, and vernal pools. Found in the coastal regional from Santa Barbara County south to San Diego County. Flowering Period: May to November. Elevation: below 1500 feet (480 meters).	**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 Project Site and the site lacks mesic habitat.
Centromadia pungens ssp. *laevis*	smooth tarplant	--/--, CNPS Rank 1B.1	Annual herb. Occurs on alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. Flowering Period: April to September. Elevation: below 2,100 feet (640 meters).	**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 Project Site and the site lacks alkali soils needed to support this species.
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.	**Low Potential to Occur.** While suitable coastal bluffs habitat is present within the project site and this species has been reported within TPSP, the project site is outside of the known elevation range for this species. The project site is located outside of the known elevation range for this species
Chamaebatia australis	Southern mountain misery	--/--, CNPS Rank 4.2	Perennial shrub. Occurs in chaparral on gabbroic or metavolcanics soils. Blooms November to May. Elevation: 980 to 3,350 feet (300 to 1,020 meters).	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the Project Site and the site lacks metavolcanic soils needed to support this species. The project site is located outside of the known elevation range for this species

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE, CNPS Rank 1B.2	Annual herb. Found in coastal salt marshes and swamps, particularly on slightly raised hummocks, and on coastal dunes. Flowering Period: May to October. Elevation: below 98 feet (X meters).	**Not Expected.** Although this species has been reported within five miles of the project site, the site lacks suitable salt marsh or dune habitat typically needed to support this species. The project site is located outside of the known elevation range for this species
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).	**Moderate Potential to Occur. Not Observed.** Suitable sandy chaparral habitat is present within the project site and this species has been reported within La Jolla. This species was not observed during project surveys.
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).	**High Potential to Occur. Not Observed.** Suitable sandy chaparral habitat is present within the project site and this species has been reported within TPSP. This species was not observed during project surveys.
Cistanthe maritima	seaside calandrinia	--/--, CNPS Rank 4.2	Annual herb. Occurs on sandy bluffs near the beach and sandy openings in coastal sage scrub and grasslands. Flowering period: February to June. Elevation: below 984 feet (300 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable sandy coastal sage scrub or grassland habitat typically needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Clarkia delicata	delicate clarkia	--/--, CNPS Rank 1B.2	Annual herb. Occurs in shaded areas or the periphery of oak woodlands and cismontane chaparral, often on gabbroic soils. Flowering period: April to May. Elevation: below 3,281 feet (1,000 meters).	**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 Project Site and the site lacks gabbroic soils strongly associated with this species.
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).	**Low Potential to Occur.** Suitable coastal chaparral habitat is present within the project site and this species has been reported 1 mile of the project site; however, this conspicuous perennial species was not observed during project surveys.
Convolvulus simulans	small flowered morning glory	--/--, CNPS Rank 4.2	Annual herb. Occurs on clay soils and serpentinite seeps in openings within chaparral, coastal scrub, and native grassland. Flowering period: April to June. Elevation: 98 to 2,871 feet (30 to 875 meters).	**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 Project Site and the site lacks clay soils or serpentine seeps strongly associated with this species.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	--/--, CNPS Rank 1B.1	Perennial herb. Occurs within grasslands, coastal bluff scrub, coastal scrub, and chaparral. Flowering period: June to September. Elevation: 15 to 2,362 feet (5 to 720 meters).	**High Potential to Occur. Not Observed.** Suitable coastal chaparral habitat is present within the project site and this species has been recorded approximately 0.5-mile south of the site. This species was not observed during project surveys.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**High Potential to Occur. Not Observed.** Suitable chaparral habitat is present within the project site and this species has been recorded north of the project site in TPSP. This species was not observed during project surveys.
Cryptantha wigginsii	Wiggins' cryptantha	--/--, CNPS Rank 1B.2	Annual herb found in clay soils within coastal scrub habitat. Flowering February – June.	**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 Project Site and the site lacks clay soils strongly associated with this species.
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).	**Low Potential to Occur.** Suitable coastal chaparral habitat is present within the project site and this species has been recorded approximately 0.5-mile south of the site; however, this is a conspicuous succulent and would have been observed if present. This species was not observed during project surveys.
Dichondra occidentalis	western dichondra	--/--, CNPS Rank 4.2	Perennial herb. Found among rocks and shrubs within grasslands, coastal sage scrub, chaparral, and oak woodlands. Often proliferates on recently burned slopes. Flowering period: March to June. Elevation: below 1,706 feet (520 meters).	**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 Project Site and the site has not burned recently.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Diplacus aridus	low bush monkeyflower	--/--, CNPS Rank 4.3	Perennial shrub. Occurs on rocky chaparral and within Sonoran desert scrub. Flowering period: April to July. Elevation: 2,460 and 3,940 feet (750 to 1,200 meters).	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) of the Project Site and the site is outside of the verified range of this species. The project site is located outside of the known elevation range for this species.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	--/--, CNPS Rank 1B.1	Perennial herb succulent. Grows on open, rocky slopes, often on serpentine or clay dominated soils in coastal sage scrub and valley grassland communities. Flowering period: April to June. Elevation: below 1,476 feet (450 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks suitable edaphic conditions typically needed to support this species.
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).	**High Potential to Occur.** Suitable sandstone bluff habitat is present in the northern portion of the study area is known to occur in the northeastern half of the study area. However, this species was not observed during project surveys.
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks suitable clays soils typically needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

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.	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks steep north facing slopes where this species is typically observed.
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks mesic conditions typically needed to support this species.
Eriodictyon sessilifolium	sessile-leaved yerba santa	--/--, CNPS Rank 2B.1	Perennial herb. Occurs on slopes and ravines in disturbed areas, grassland, and chaparral. Elevation range 82-2,887 ft. Flowering period Jul.	**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 Project Site and the site is outside of the verified range of this species.
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site 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 Expected**. Suitable bluff habitat is present within the project site and this species has been reported within TPSP; however, the project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Erythranthe diffusa	Palomar monkeyflower	--/--, CNPS Rank 4.3	Annual herb. Occurs in lower montane coniferous forest and chaparral understory. It has been found in xeric openings in the chamise chaparral and beneath conifers near very mesic meadows. Flowering period Apr-Jun.	**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 Project Site and the site is outside of the know range and elevation of this species.
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).	**Low Potential to Occur.** Although this species has been reported within TPSP, the site lacks rocky soils typically needed to support this species.
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).	**Low Potential to Occur**. Suitable bluff habitat is present within the project site and this species has been reported within TPSP; however, this is a conspicuous succulent and would have been observed if present. This species was not observed during project surveys.
Geothallus tuberosus	Campbell's liverwort	--/--, CNPS Rank 1B.1	Ephemeral liverwort. Occurs on mesic soil, in coastal scrub and vernal pools. Elevation range 9-600 meters.	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks vernal pools needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	--/--, CNPS Rank 3.1	Annual herb. Occurs in mesic and disturbed areas within chaparral. Flowers April to June. Flowering period: April to June. Elevation: 1,475 and 2,300 feet (450 to 700 meters).	**Not Likely to Occur.** Although this species has been reported within five miles of the project site, the project site lacks mesic disturbed areas needed to support this species. In addition, the project site is located outside of the known elevation range for this species.
Grindelia hallii	San Diego gumplant	--/--, CNPS Rank 1B.2	Perennial herb. Typically occurs with sunny openings of chaparral and lower montane coniferous forests. Also found in meadows and seeps, and grasslands. Prefers very wet locales in early spring, although such places usually dry quickly as spring turns to summer. Flowering Period: May to October. Elevation: 605 to 5,725 feet (184 to 1745 meters).	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) of the Project Site and the site lacks mesic areas needed to support this species. The project site is located outside of the known elevation range for this species.
Harpagonella palmeri	Palmer's grapplinghook	--/--, CNPS Rank 4.2	Annual herb. Found in clay soils in annual grasslands and coastal sage scrub. Flowering Period: March to May. Elevation: 65 to 3,100 feet (20 to 955 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the project site lacks clay soils needed to support this species.
Hazardia orcuttii	Orcutt's hazardia	--/ST, CNPS Rank 1B.1	Perennial evergreen shrub found in clay soils in maritime chaparral and coastal scrub habitats. Flowering August - October. Elevation: below 330 feet (below 100 meters).	**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 Project Site and the site lacks clay soils needed to support this species. The project site is located at the northern end of the known elevation rage for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Moderate Potential to Occur.** Suitable bluff habitat is present within the project site and this species has been reported within TPSP. This conspicuous species was not observed during project surveys.
Holocarpha virgata ssp. *elongata*	graceful tarplant	--/--, CNPS Rank 4.2	Annual herb. Occurs in grasslands, coastal scrub, chaparral, and cismontane woodland. Flowering period: May to November. Elevation: 195 to 3,600 feet (60 to 1,100 meters).	**Moderate Potential to Occur**. Suitable chaparral habitat is present within the project site, but this species has not been observed within the immediate vicinity. This conspicuous species was not observed during project surveys.
Hordeum intercedens	vernal barley	--/--, CNPS Rank 3.2	Annual herb. Occurs in vernal pools, alkaline flats, and dry, saline streambeds. Also found in saline flats and depressions within grasslands. Flowering period: March to June. Elevation: below 3.280 feet (1,000 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.
Horkelia truncata	Ramona horkelia	--/--, CNPS Rank 1B.3	Perennial herb. Occurs on clay and gabbroic soils within chaparral and woodlands. Flowering period: May to June. Elevation: 1,310 to 4,265 feet (400 to 1,300 meters).	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable edaphic conditions. The project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Hulsea californica	San Diego sunflower	--/--, CNPS Rank 1B.3	Perennial herb. Occurs in montane coniferous forest and lightly disturbed chaparral. Occurs in large numbers following fires and is otherwise found in small colonies or singly in mildly disturbed locales. Elevation range 3,280-6,562 ft. Flowering period Apr-Jun.	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable edaphic conditions. The project site is located outside of the known elevation range for this species.
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.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site is approximately 50 miles west of the known range of this species.
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: 32 to 1,640 feet (10 to 500 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable wetland conditions needed to support this species.
Juglans californica	Southern California black walnut	--/--, CNPS Rank 4.2	Perennial tree. Occurs on alluvial soils of hillside and canyons associated with chaparral, coastal scrub, riparian woodlands, and cismontane woodlands. Found from the central coast south to San Diego County. Flowering Period: March to June. Elevation: 164 to 3000 feet (50 to 900 meters).	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site is west of the known range of this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable wetland conditions needed to support this species
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.
Lathyrus splendens	pride of California	--/--, CNPS Rank 4.3	Perennial herb. Found within chaparral. Flowering period: March to June. Elevation: 650 to 5,000 feet (200 to 1,525 meters).	**Not Likely to Occur**. Suitable chaparral habitat is present within the project site and this species has been observed within La Jolla; however, the project site is located outside of the known elevation range for this species.
Lepechinia cardiophylla	heart leaved pitcher sage	--/--, CNPS Rank 1B.2	Perennial shrub. Occurs in closed-cone coniferous forest, chaparral, and cismontane woodland. Elevation 600-1,200 meters. Flowering period Apr – Jul.	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site is west of the known range of this species. The project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site 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).	**Moderate Potential to Occur. Not Observed**. Suitable bluff habitat is present within the project site and this species has been reported within TPSP. This conspicuous species was not observed during project surveys.
Lycium californicum	California boxthorn	--/--, CNPS Rank 4.2	Perennial shrub. Occurs within coastal scrub and coastal bluff scrub. Flowering period: March through August (December). Elevation: below 492 feet (152 meters).	**Low Potential to Occur. Not Observed**. Suitable bluff habitat is present within the project site and this species has been reported within TPSP; however, this conspicuous species was not observed during project surveys.
Microseris douglasii ssp. *platycarpha*	small flowered microseris	--/--, CNPS Rank 4.2	Annual herb. Found on clay soils within coastal sage scrub, woodlands, and grasslands. Often near vernal pools or serpentine outcrops. Flower period: March to May. Elevation: 49 to 3,510 feet (15 to 1,070 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable clay soils typically needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Monardella hypoleuca ssp. *lanata*	felt leaved monardella	--/--, CNPS Rank 1B.2, MSCP Covered	Perennial rhizomatous herb. Occurs on rocky, granitic slopes or hilltops within chaparral and woodlands. Flowering period: June to August. Elevation: 1,000 to 5,170 feet (300 to 1,575 meters).	**Not Expected.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable rocky habitat. The project site is located outside of the known elevation range for this species.
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.** Although this species has been reported within five miles of the project site, the site lacks suitable dry wash habitat with no canopy typically needed to support this species.
Myosurus minimus ssp. *apus*	little mouse tail	--/--, CNPS Rank 3.1	Annual herb. Occurs in alkaline vernal pools within native grassland. Flowering period: March to June. Elevation: 65 to 2,100 feet (20 to 640 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat 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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Navarretia prostrata	prostrate navarretia	--/--, CNPS Rank 1B.1	Annual herb. Occurs in mesic soil within vernal pools in coastal scrub, meadows, seeps, valleys, and foothill grasslands. Grows at mid-levels within the deeper pools to the basin bottoms of the shallower pools. Flowering period: April to July. Elevation: 9 to 3,970 feet (3 to 1,210 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.
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)	**Low Potential to Occur**. Suitable bluff habitat is present within the project site and this species has been reported within TPSP; however, the project site is located on the upper limits of the known elevation range for this species.
Ophioglossum californicum	California adder's tongue	--/--, CNPS Rank 4.2	Perennial rhizomatous herb. Occurs within mesic areas of chaparral and grassland habitats, and along the margins of vernal pools. Flowering period: January to June. Elevation: 196 to 1,722 feet (60 to 525 meters):	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable mesic habitat needed to support this species.
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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
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).	**Moderate Potential to Occur.** Suitable bluff habitat is present within the project site and this species has been reported within TPSP. This species was not observed during project surveys.
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).	**High Potential to Occur. Not Observed**. Suitable chaparral habitat is present within the project site and this species has been reported west of the project site. This species was not observed during project surveys.
Phacelia ramosissima var. *austrolitoralis*	South Coast branching phacelia	--/--, CNPS Rank 3.2	Perennial herb. Occurs on sandy, sometimes rocky, soils of coastal dunes, coastal scrub, chaparral, and coastal salt marshes. Found throughout the southern coastal regions from San Luis Obispo County south to San Diego County. Flowering Period: March to August. Elevation: 16 to 985 feet (5 and 300 meters).	**High Potential to Occur. Not Observed**. Suitable sandy chaparral habitat is present within the project site and this species has been reported within TPSP. This species was not observed during project surveys.
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).	**Low Potential to Occur.** Although this species has been reported within TPSP, the site lacks suitable sandy coastal scrub or dune habitat needed to support this species.
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).	**Species Present**. A total of 213 individuals were found within the study area.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Piperia cooperi	Coopers rein orchid	--/--, CNPS Rank 4.2	Perennial herb. Generally found on dry sites within grasslands, chaparral, and cismontane woodland. Flowering period: March to June. Elevation: 50 to 5,200 feet (15 to 1,585 meters).	**High Potential to Occur. Not Observed**. Suitable dry chaparral habitat is present within the project site and this species has been reported within TPSP. This species 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).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable vernal pool habitat needed to support this species.
Pogogyne nudiuscula	Otay mesa mint	FE/SE, CNPS Rank 1B.1, MSCP Covered, MSCP NE	Annual herb. Grows in coastal mesa vernal pools within chaparral, coastal sage scrub, and wetland communities. Flowering period: March to June. Elevation: 328 to 820 feet (100 to 250 meters).	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable vernal pool habitat.
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).	**Species Present.** A total of 13 individuals were found within the southern maritime and mixed chaparral habitats within the central and eastern portions of the survey area
Quercus engelmannii	Engelmann oak	--/--, CNPS Rank 4.2	Perennial tree. Occurs on slopes and foothills within grasslands, chaparral, oak woodland, and riparian woodlands. Flowering period: March to June. Elevation: 160 to 4,300 feet (50 to 1,300 meters).	**Not Likely to Occur**. Suitable chaparral habitat is present within the project site and this species has been reported within 1-mile of the project site; however, this conspicuous tree species was not observed during project surveys.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Salvia munzii	Munz's sage	--/--, CNPS Rank 2B.2	Perennial evergreen shrub. Occurs within chaparral and coastal scrub. Flowering period: February to April. Elevation: 370 and 3,500 feet (115 to 1,065 meters).	**Not Likely to Occur**. Suitable chaparral habitat is present within the project site but this species has not been observed within the immediate project vicinity. This is a conspicuous species that would have been observed if present.
Selaginella cinerascens	ashy spike moss	--/--, CNPS Rank 4.1	Fern. Grows in sunny spots or under shrubs within coastal sage scrub and chaparral. Often associated with "red clay" soils. Elevation: below 1,804 feet (550 meters).	**Moderate Potential to Occur.** Suitable chaparral habitat is present within the project site and this species has been reported within 1-mile of the project site. This conspicuous moss was not observed during project surveys.
Senecio aphanactis	California groundsel	--/--, CNPS Rank 2B.2	Annual herb. Occurs on alkali flats and dry, open, rocky areas within grasslands, coastal scrub, and cismontane woodland. Flowering period: February to May. Elevation: 33 to 1,804 feet (10 to 550 meters).	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable rocky soils typically needed to support this species.
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).	**High Potential to Occur. Not Observed**. Suitable chaparral habitat is present within the project site and this species has been reported within 1-mile of the site. This species was not observed during project surveys.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

Scientific Name	Common Name	Status	Habit, Ecology and Life History	Potential to Occur
Stemodia durantifolia	white woolly stemodia	--/--, CNPS Rank 2B.1	Perennial herb. Grows on wet sand or rocks and drying streambeds within riparian habitats. Flowering period: year-round. Elevation: below 1,312 feet (400 meters).	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable streambed habitat.
Stipa diegoensis	San Diego county needle grass	--/--, CNPS Rank 4.2	Perennial herb. Found in rocky, mesic soils near streams or along the coast within coastal scrub and chaparral. Flowering period: February to June. Elevation: 30 to 2,600 feet (10 and 800 meters).	**Not Likely to Occur.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks mesic scrub habitat.
Suaeda esteroa	estuary seablite	--/--, CNPS Rank 1B.2	Perennial herb. Found in coastal salt marshes and swamps. Flowering period: May to October. Elevation: below 16 feet (5 meters).	**Not Expected.** Although this species has been reported within five miles of the project site, the site lacks suitable coastal wetland habitat typically needed to support this species. The project site is located outside of the known elevation range for this species.
Suaeda taxifolia	seablite	--/--, CNPS Rank 4.2	Shrub. Occurs in the margins of coastal salt marshes, coastal dunes, and coastal bluff scrub. Flowering period: all year. Elevation: below 49 feet (15 meters).	**Not Expected.** Although this species has been reported within five miles of the project site, the site lacks suitable coastal wetland habitat typically needed to support this species. The project site is located outside of the known elevation range for this species.

Appendix D (cont.)
Sensitive Plant Species with Potential to Occur

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.** There are no present or historical records of the species occurring on or in the immediate vicinity, (within 3 miles) and the site lacks suitable open chaparral habitat.
Viguiera laciniata	San Diego county viguiera	--/--, CNPS Rank 4.3	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.	**Low Potential to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable coastal sage scrub habitat typically needed to support this species.
Xanthisma junceum	rush like bristleweed	--/--, CNPS Rank 4.3	Perennial herb. Grows on dry hillsides within coastal sage scrub and chaparral. Flowering period: May to January. Elevation: 785 to 3,280 feet (240 to 1,000 meters).	**Not Likely to Occur.** Although this species has been reported within five miles of the project site, the site lacks suitable dry chaparral habitat typically needed to support this species. The project site is located outside of the known elevation range for this species.

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

[2] CNPS = California Native Plant Society Rare Plant Rank: 1A–presumed extirpated in California and either rare or extinct elsewhere; 1B–rare, threatened, or endangered in California and elsewhere; 2A–presumed extirpated in California, but more common elsewhere; 2B–rare, threatened, or endangered in California, but more common elsewhere; 3–more information needed; 4–watch list for species of limited distribution. Extension codes: .1–seriously endangered; .2–moderately endangered; .3–not very endangered.

[3] County of San Diego Sensitive Plant Lists: A–rare, threatened, or endangered in California and elsewhere; B–rare, threatened, or endangered in California but more common elsewhere; C–may be quite rare but need more information; D–limited distribution and may be uncommon, but not presently endangered.

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 Project Site 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 Project Site 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 Project Site, 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 Project Site (within 3 miles).
Species Present–The species was observed on the Project Site at the time of the survey or during a previous biological survey

Appendix E

Sensitive Animal Species Observed or with Potential to Occur

Appendix E
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Invertebrates			
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE/-- MSCP Covered VPHCP Covered	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.** The project area lacks suitable vernal pool habitat required by this species.
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**. Suitable chaparral habitat occurs within the project site and this species has been historically reported within five miles of the project site; however, there are no recent observations of the species in the vicinity of the project likely due its disturbed nature and landscape position, which is isolated from core populations. The project site occurs outside the recommended quino survey area (USFWS 2014).
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.	**Not Expected**. This species has been historically reported within five miles; however, the project site lacks topography that would support temporary pools required by this species for breeding.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
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.	**None.** Although this species has been historically reported within five miles of the project site, the project site lacks suitable habitat to support this species.
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.** Although this species has been reported within TPSP, the site lacks suitable loose sandy soils.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Reptiles (cont.)			
California glossy snake (*Arizona elegans occidentalis*)	--/SSC	Occurs along the coastal regions from San Francisco south to San Diego County; though it is absent along the central coast of California. Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas and areas with soils loose enough for easy burrowing.	**Low Potential to Occur.** Suitable habitat occurs within the project site; however, there are no recent reported occurrences of the species within the project vicinity. The most recent recorded observation is from the La Jolla area in 1946.
Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*)	--/WL MSCP Covered	Found within the southwestern portion of California in southern San Bernardino, western Riverside, Orange, and San Diego Counties on the western slopes of the Peninsular ranges below 3,500 feet. Suitable habitat includes coastal sage scrub, chaparral, juniper woodland, oak woodland, and grasslands along with alluvial fan scrub and riparian areas. Occurrence of the species correlated with the presence perennial plants (such as California buckwheat, California sagebrush, black sage, or chaparral) to provide a food base for its major food source, termites.	**High Potential to Occur.** Suitable chaparral habitat occurs within the project site and there are multiple reported observations of the species within the project vicinity.
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.	**High Potential to Occur.** The project site consists of suitable chaparral habitat to support this species and the species has been recently observed within the project vicinity.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Reptiles (cont.)			
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.	**Low Potential to Occur.** Though chaparral habitat occurs within the project site, rocky areas are absent. Historical records of this species occur within five miles of the project site; 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*).	**Low Potential to Occur.** Suitable chaparral habitat occurs within the project site, though loose soils are absent and the open space within the project site is isolated from larger contiguous open space areas. Historical records of this species occur within five miles of the project site; 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.** Suitable chaparral habitat occurs within the project site, though rocky areas are absent and the site is isolated from larger contiguous open space areas. Historical records of this species occur within five miles of the project site; however, the most recent of these occurred in 2002.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Reptiles (cont.)			
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	--/SSC	Occurs in the coastal regions of California from the northern Carrizo Plains in San Luis Obispo County south to San Diego County at elevations below 7,000 feet. Inhabits semi-arid shrubby areas such as chaparral and desert scrub. Also found along washes, sandy flats, canyons, and rocky areas. Takes refuge and overwinters in burrows and woodrat nests.	**Low Potential to Occur.** Although suitable chaparral habitat occurs within the project site, the site lacks suitable washes, sandy flats, canyons, and rocky areas. Historical records of this species occur within five miles of the project site.
Two-striped garter snake (*Thamnophis hammondii*)	--/SSC	Found in California from Monterey County south along the coast to San Diego County and into northern Baja California at elevations below 7,000 feet. Commonly inhabits perennial and intermittent streams with rocky beds bordered by riparian habitats dominated by willows and other dense vegetation. The species has also been found in stock ponds and other artificially created aquatic habitats if bordered by dense vegetation and potential prey, such as amphibians and fish, are present.	**None.** Although an ephemeral drainage is present on site this aquatic feature lacks a rocky stream bed and is not perennial or intermittent. There are several historic observations recorded within five miles of the project site; 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.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
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.	**Not Expected**. Although chaparral occurs within the project site, the site is generally flat and lacking suitable sloped areas to support the species. Furthermore, the chaparral found on-site is very dense. There are historic records of this species within five miles of the project site; however, the most recent observation 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 project site 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.	**Low Potential to Occur**. Potentially suitable chaparral habitat occurs within the project site, but it is generally dense and has not burned recently making it less suitable. The most recent observation within five miles of the project site was recorded in 2000.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
Coastal Cactus Wren (*Campylorhynchus brunneicapillus sandiegensis*)	BCC/SSC (San Diego and Orange Counties) 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.** The project site lacks suitable cacti required by this species. One historical record of this species occurs within five miles of the project site.
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 project site lacks suitable habitat to support this species. This species has been recorded within five miles of the project site 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.	**Not Expected**. Although this species has been reported within five miles of the project site, the project site lacks suitable substantial wetlands, marshes, meadows, grassland, riparian woodland, desert scrub, or pastures to support this species.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
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 five miles of the project site, the project site lacks suitable grasslands, wetlands, oak woodlands, open woodlands, or agricultural areas to support this species.
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 five miles of the project site, the project site lacks suitable cliff faces typically required by this species; though the species could nest on suitable man-made structures that are found within the project site or potentially forage in the area.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
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.	**None.** Although this species has been historically reported within five miles of the project site, 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 five miles of the project site, the project site and immediate vicinity lacks suitable rivers, lakes, or reservoirs required by this species for nesting and/or foraging.
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 five miles of the project site, the project site lacks suitable salt marsh habitat to support this species.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/SSC MSCP Covered	Year-round resident of California occurring from Ventura County south to San Diego County, and east to the western portions of San Bernardino and Riverside Counties. Typically occur in arid, open sage scrub habitats on gently slopes hillsides to relatively flat areas at elevations below 3,000 feet. The composition of sage scrub in which gnatcatchers are found varies; however, California sagebrush is at least present as dominant or co-dominant species. The species is mostly absent from areas dominated by black sage, white sage, or lemonadeberry, though the species may occur more regularly in inland regions dominated by black sage.	**None.** Suitable coastal sage scrub habitat is absent from the project site.
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.	**None.** Although this species has been reported within five miles of the study area, the study area lacks suitable salt marsh, lagoon, or freshwater marsh habitat to support this species.
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 five miles of the project site, the project site lacks suitable beaches or estuaries to support this species.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Birds (cont.)			
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE MSCP Covered	Breeds within California and northern Baja California, wintering in southern Baja California. In California, breeds along the coast and western edge of the Mojave Desert from Santa Barbara County south to San Diego County, and east to Inyo County, San Bernardino, and Riverside Counties. Breeding habitat consists of early to mid-successional riparian habitat, often where flowing water is present, but also found in dry watercourses within the desert. A structurally diverse canopy and dense shrub cover is required for nesting and foraging. Dominant species within breeding habitat includes cottonwood and willows with mule fat, oaks, and sycamore, and mesquite (*Prosopis glandulosa*) and arrowweed (*Pluchea sericea*) within desert habitats. The species can be tolerant of the presence of non-native species such as tamarisk.	**None**. Although this species has been reported within five miles of the project site, it is not expected to occur within the project site due to lack of suitable riparian habitat.
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.	**Not Expected.** Although suitable chaparral habitat is present within the project site, the site lacks suitable gravelly or rocky soils. Furthermore, there are only historic records of this species within five miles of the project site. The most recent observation was recorded in 2001.
Western mastiff bat (*Eumops perotis californicus*)	--/SSC	In California, the species occurs from Monterey County south to San Diego County from the coast eastward to the Colorado Desert. Found in open, semi-arid to arid habitats including coastal and desert scrub, grasslands, woodlands, and palm oases. Prefers to roost in high situations above the ground on vertical cliffs, rock quarries, outcrops of fractured boulders, and occasionally tall buildings.	**Low Potential to Occur.** Although this species has been recorded within five miles of the project site, the project site lacks suitable coastal or desert scrub, grassland, woodlands, or palm oases to support this species. The most recent observation of this species near the project site is from Los Peñasquitos Canyon Preserve in 2003.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals (cont.)			
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.	**Not Expected.** Although this species has been recorded within five miles of the project site, the project site is not located in foothills, mountains, or desert regions of San Diego County. The most recent record of this species is from 1955 on the University of California San Diego campus.
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.	**Not Expected.** Although this species has been recorded within five miles of the project site, preferred riparian habitat does not currently occur on site. 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.	**Not Expected**. Although this species has been recorded within five miles of the project site, the project site lacks suitable open, sparse vegetation to support this species. Furthermore, the project site is isolated from other contiguous patches of habitat. One historical report from 2002 recorded this species within the Carmel Mountain area.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals (cont.)			
San Diego Bryant's (formerly desert) woodrat (*Neotoma bryanti [formerly lepida] intermedia*)	--/SSC	Occurs along the coastal regions of California being found as far north as San Luis Obispo County, south to San Diego County, and in the western portions of San Bernardino and Riverside Counties. Inhabits a variety of shrub and desert habitats such as coastal sagebrush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland among others. Often associated with rock outcroppings, boulders, cacti patches, and areas with dense understories. Construct dens used for shelter, food storage, and nesting around rock outcroppings and cacti using various materials such as twigs, sticks, and other debris.	**Moderate Potential to Occur**. Suitable chaparral habitat occurs within the project site but rock outcroppings and cacti where dens are constructed are absent from the site. In addition, no woodrat middens were detected during project surveys. There are several reports of the species within Torrey Pines Reserve and Torrey Pines State Park.
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	--/SSC	Rare in California occurring from Los Angeles County eastwards to San Bernardino County, and southwards to San Diego County. Closely associated with their preferred roosting habitats consisting of vertical cliffs, quarries, and rocky outcrops. Sometimes roosts under tiled roofs and observed utilizing bat boxes. Habitat generalists foraging in grasslands, shrublands, riparian areas, oak woodlands, forests, meadows, and ponds favoring larger water bodies for drinking.	**Low Potential to Occur**. Potentially suitable foraging habitat occurs within the project site, but the site lacks large bodies of water nearby for drinking. Preferred roosting habitat is absent, although this species may roost in man-made structures found on-site. There is one report of this species recorded in Del Mar in 2007.
Pacific pocket mouse (*Perognathus longimembris pacificus*)	--/SSC	Occurs from the San Joaquin Valley south to San Diego County. Typically found in open habitats associated with gentle terrain including grasslands and coastal sage scrub. Also found in alluvial fans and desert scrub in desert regions. Prefers habitats with friable soils with scattered shrubs and mixed grasses.	**Not Expected.** Although this species has been recorded within five miles of the project site, the site lacks suitable open grassland or coastal sage scrub habitat to support this species. One report of this species was recorded in 1994 in Del Mar.

Appendix E (cont.)
Special Status Animal Species Observed or with Potential to Occur

Species	Status[1]	Habitat Associations	Potential to Occur[2]
Mammals (cont.)			
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.	**Not Expected.** Although this species has been reported within five miles of the project site, the project site support only a fragmented, isolated patch of suitable habitat. The most recent observation of this species within the project vicinity was recorded in 1953.

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

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

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

Appendix F

Explanation of Status Codes for Plant and Animal Species

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]).

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

USFWS Federal Proposed Endangered (FPE) Species

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

USFWS Federal Proposed Threatened (FPT) Species

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

USFWS Bald and Golden Eagle Protection Act (BGEPA)

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

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

California Department of Fish and Wildlife (CDFW)

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

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

OTHER CODES AND ABBREVIATIONS

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

Lists

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

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

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

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

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

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

List/Threat Code Extensions

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

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

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

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

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

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

City of San Diego

Multiple Species Conservation Program (MSCP) Covered

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

MSCP Narrow Endemic (NE)

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

Vernal Pool Habitat Conservation Plan (VPHCP) Covered

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

Appendix G

Torrey Pine Arborist Survey Report

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

July 14, 2021 Project 00022.00008.001

Mr. Michael D'Ambrosia
Alexandria Real Estate Equities
10996 Torreyana Road, Suite 250
San Diego, CA 92121

Subject: Tree Survey Report for the One Alexandria North Project (PTS-0691942)

Dear Mr. D'Ambrosia:

At the request of Alexandria Real Estate Equities and on behalf of the City of San Diego (City), HELIX Environmental Planning, Inc. (HELIX) has prepared this report to document the results of a tree survey for the One Alexandria North Project (project), which is proposed in the City of San Diego, San Diego County, California. The purpose of the survey was to inventory all of the Torrey pine (*Pinus torreyana*) trees with a trunk diameter of at least 4 inches at 54 inches above natural grade occurring within, directly abutting, and adjacent to the property to determine tree health, impact, and retention potential as it relates to the project.

This letter report summarizes the methods and results; the report includes a figure that depicts the location for the trees surveyed along with recommendations for avoidance and tree protection measures to abate and/or remove potential impacts to arboricultural resources.

PROJECT LOCATION AND DESCRIPTION

The approximately 11.4-acre One Alexandria North project site is located in the Torrey Pines community in the City of San Diego, San Diego County, California (Figure 1, *Regional Location*). It lies within an unsectioned portion of Township 14 South, Range 4 West of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located east of the Pacific Ocean, west of Interstate 5, south of Del Mar, and north of La Jolla (Figure 1). The site is specifically located at 11255 and 11355 North Torrey Pines Rd, La Jolla, CA 92037 (Accessor's Parcel Numbers [APNs] 310-110-13-00 and 310-110-14-00), west of Torrey Pines State Reserve (Figure 3, *Aerial Photograph*). The project consists of the redevelopment of the current National University - La Jolla, California Academic Headquarters into a two-building research and development campus, with supporting amenity uses and parking structure.

METHODS

HELIX International Society of Arboriculture (ISA) Certified Arborist, Alexander Walsh (WE-12997A) completed the tree survey between January 4 and January 6, 2021. All Torrey pines surveyed had a trunk diameter of at least 4 inches at 54 inches above natural grade and are occurring within, directly abutting, and adjacent to the project footprint. Each tree was located with sub-meter accuracy using a Global Positioning System unit.

The following data was collected for each tree:

- Average tree canopy spread;
- Tree height;
- Tree trunk diameter at 54" above natural grade; diameter at breast height (DBH); and
- Tree health and vigor.

RESULTS

During the arborist survey, 213 Torrey pines were mapped within, directly abutting, and adjacent to the project footprint (Figure 4, *Tree Locations*). Of the 213 Torrey pines that were surveyed within, directly abutting, and adjacent to the project footprint, 101 are categorized as ornamental trees, based on a review of historic aerial photographs (Historic Aerials 2021), that show that the majority of the site was graded between 1978 and 1980. As shown in Figure 5, *1980 Aerial*, the majority of the site was graded and devoid of vegetation, specifically trees. HELIX mapped the areas within Figure 5 that were devoid of vegetation and compared them to the location of the mapped trees in Figure 4.

The remaining 112 trees are considered naturally occurring Torrey pine trees as these trees occur outside of the limits of disturbance shown in Figure 5. Of the 112 remaining Torrey pine trees, 22 are determined to be irrigated due to their proximity to the project site, while the remaining 90 are not irrigated. These naturally-occurring Torrey pines, irrigated and not irrigated, occur along the northwestern portion of the project site. A map depicting the location of each tree and whether it is categorized as natural (including irrigated) or ornamental is included in Figure 4. A health rating was given to each tree. The four categories used include: Good, Fair, Poor, or Dead. All trees were determined to be in good health. None of the trees surveyed exhibited signs of stress, such as wilting or yellowing and browning of the needles. The results of the tree survey are included as Attachment A, *Tree Survey Results*. Representative site and tree photographs are included as Attachment B, *Representative Site Photos*.

IMPACTS AND RETENTION POTENTIAL

The 101 ornamental Torrey pines are not considered sensitive resources, and thus project-related impacts to these trees do not require mitigation. The 112 naturally occurring Torrey pines are considered sensitive resources; however, the majority occur outside of the property boundary in the northwestern portion of the study area. Figure 4 depicts a cluster of eight naturally occurring trees in the central northern portion of the project site that fall within the project boundary. These trees occur

above the grade of the adjacent developed area and are contained by a large retaining wall. The project has been specifically planned to avoid impacts to naturally-occurring (including irrigated) Torrey pines within the project site and vicinity; therefore, the project does not anticipate impacts to any of the naturally-occurring Torrey pine trees.

RECOMMENDATIONS FOR AVOIDANCE AND PROTECTION

It has been determined that the eight naturally occurring trees that occur on-site would be avoided during project construction. In order to protect trees within the vicinity of a construction site, it is recommended to avoid the critical root zone (CRZ) of each naturally occurring (including irrigated) Torrey pine. The CRZ is also known as the Tree Protection Zone (TPZ), which is typically defined as a circle on the ground corresponding to the dripline of the tree. In the TPZ, the soil will be protected from compaction, critical roots are not damaged by pruning, trenching, or excessive grade changes, and trunk and branches are not damaged by equipment or workers. A TPZ helps ensure that a tree is protected during construction, has enough space for root and branch growth, and will receive adequate supplies of soil nutrients, air, and water.

Although the dripline can be irregular and hard to define, an alternative method for determining the CRZ is to multiply the diameter (DBH) of the tree (in inches) by 12. A common practice for construction projects with trees designated for preservation is to place orange snow fencing approximately 6 to 10 feet out from the dripline, as an additional buffer since the CRZ can actually extend well beyond the canopy dripline, depending on tree size.

In addition, instead of raking up the fallen needles, allow them to lie where they fall on top of the ground surrounding the tree. This long-lasting, natural mulch helps to preserve moisture in the soil, hinders weeds, and is beneficial to the Torrey pine.

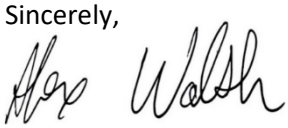
CONCLUSION

In conclusion, a tree survey was completed to document existing Torrey pine trees within, directly abutting, and adjacent to the project footprint for the One Alexandria North Project. The tree location, health, trunk diameter, and canopy spread were inventoried to help determine impact and retention potential as it relates to the project. All 213 Torrey pines surveyed were determined to be in good health, 112 trees were determined to be naturally occurring, while 101 trees were determined to be ornamental landscaped trees according to a review of historical aerial imagery, including a 1980 aerial photograph that showed that the majority of the site had been graded and was devoid of vegetation.

The project has been specifically designed to avoid impacts to all naturally occurring (including irrigated) Torrey pines. In order to protect the native trees during construction, it is recommended that orange snow fencing be installed around the TPZ, extending 6 to 10 feet beyond the dripline in a circle around the avoided naturally-occurring trees.

We appreciate the opportunity to provide you with this tree survey. Should you have any questions or require additional information, please do not hesitate to contact me at (619) 730-5780 or AlexanderW@helixepi.com, or Katie Bellon at (858) 395-7397 or KatieB@helixepi.com.

Sincerely,



Alexander Walsh
ISA Certified Arborist (WE-12997A)
Biologist

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Tree Locations
Figure 5: 1980 Aerial
Attachment A: Tree Survey Results
Attachment B: Representative Site Photos

REFERENCES

UC Berkeley College of Natural Sciences; Forest Pathology and Mycology Lab. *What is the Critical Root Zone around a tree?*

International Society of Arboriculture. International Society of Arboriculture, P.O. Box GG, Savoy, IL 61874-9902. (217) 355-9681. 1998. *Trees in Development.* (A professional's guide to preserving trees in development.)

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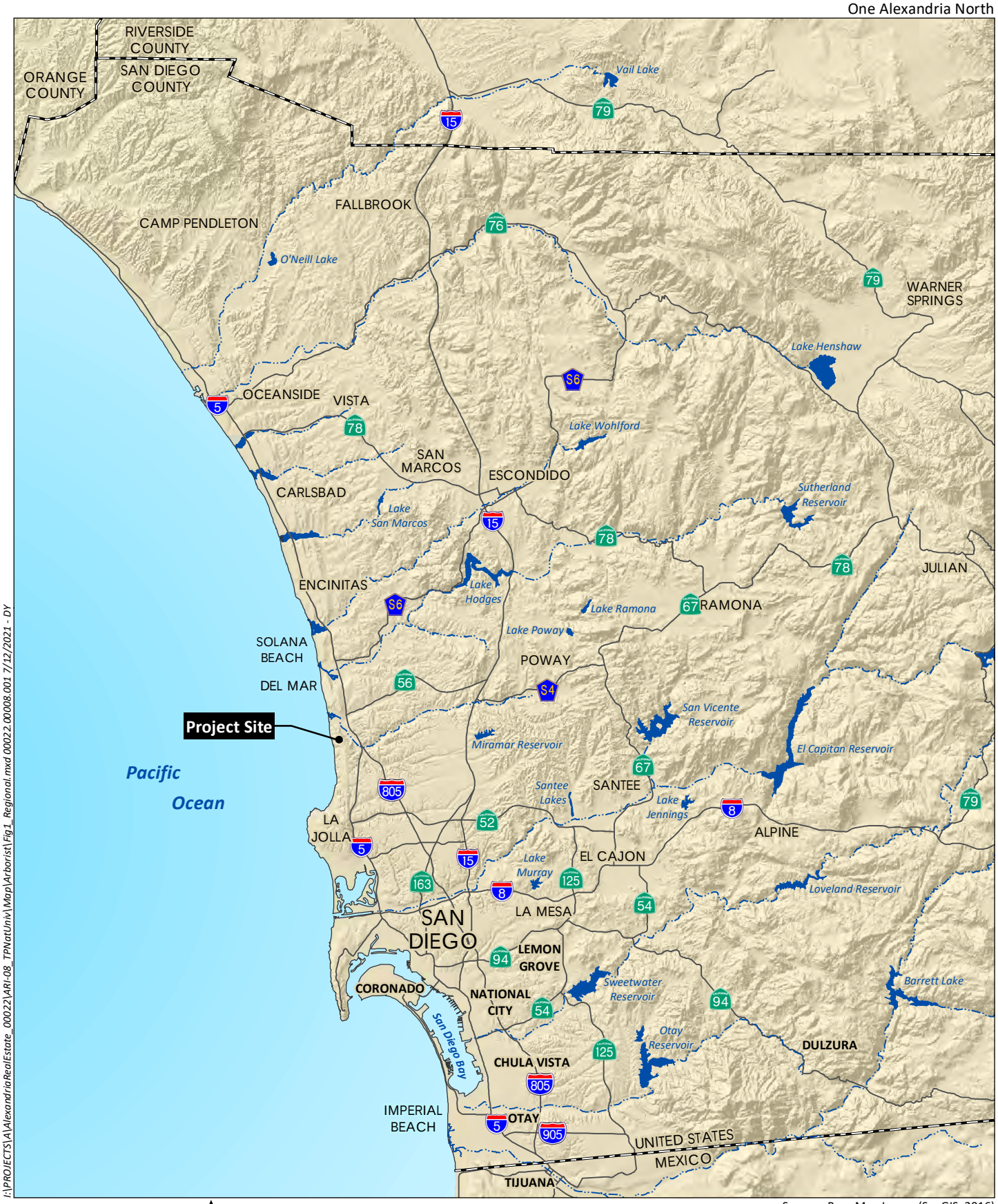


I:\PROJECTS\A\AlexandriaRealEstate_00022\ARI-08_TPNatUniv\Map\Arborist\Fig1_Regional.mxd 00022.00008.001 7/12/2021 - DY

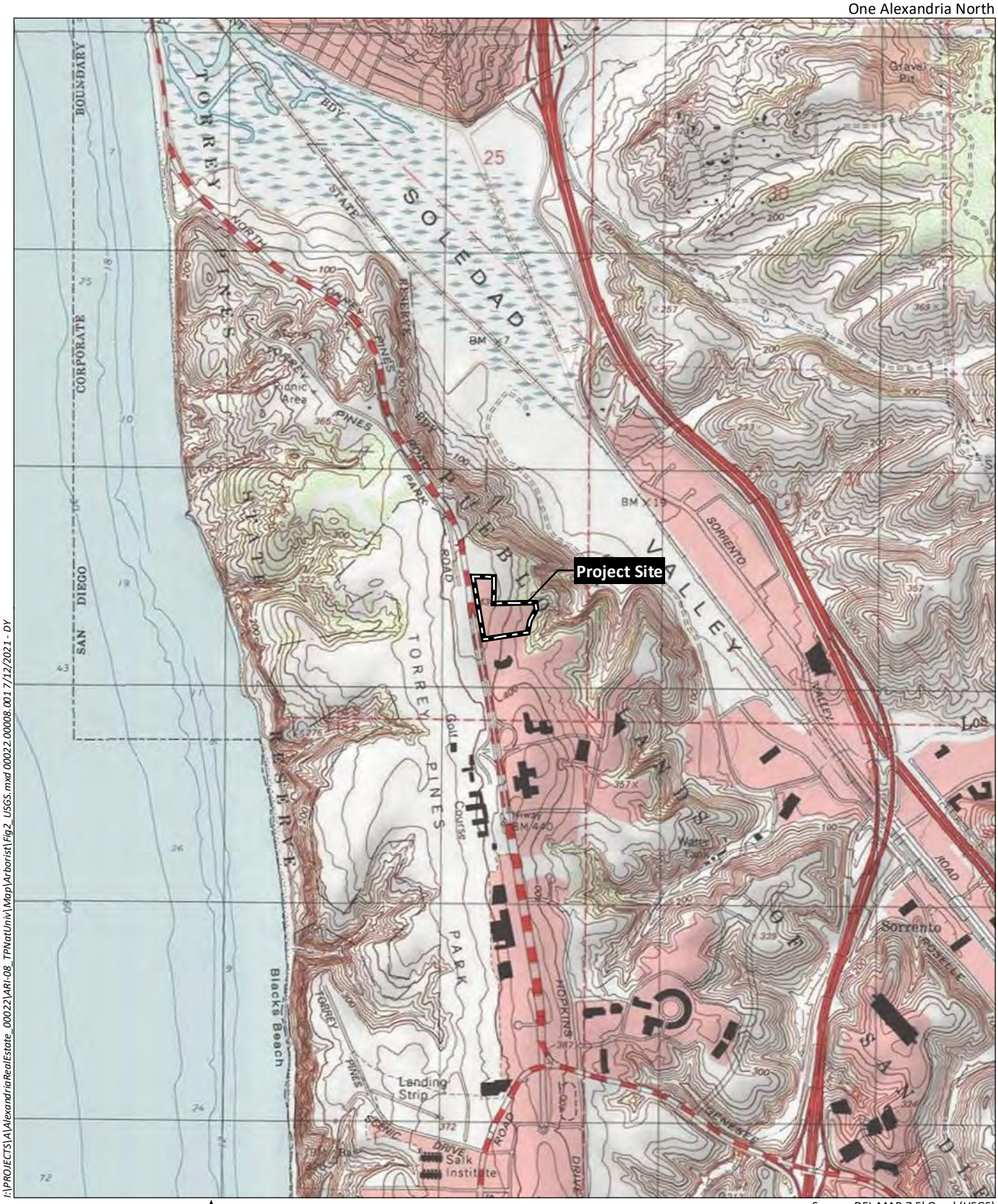
0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



Source: DEL MAR 7.5' Quad (USGS)

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HELIX Environmental Planning

USGS Topography

Figure 2

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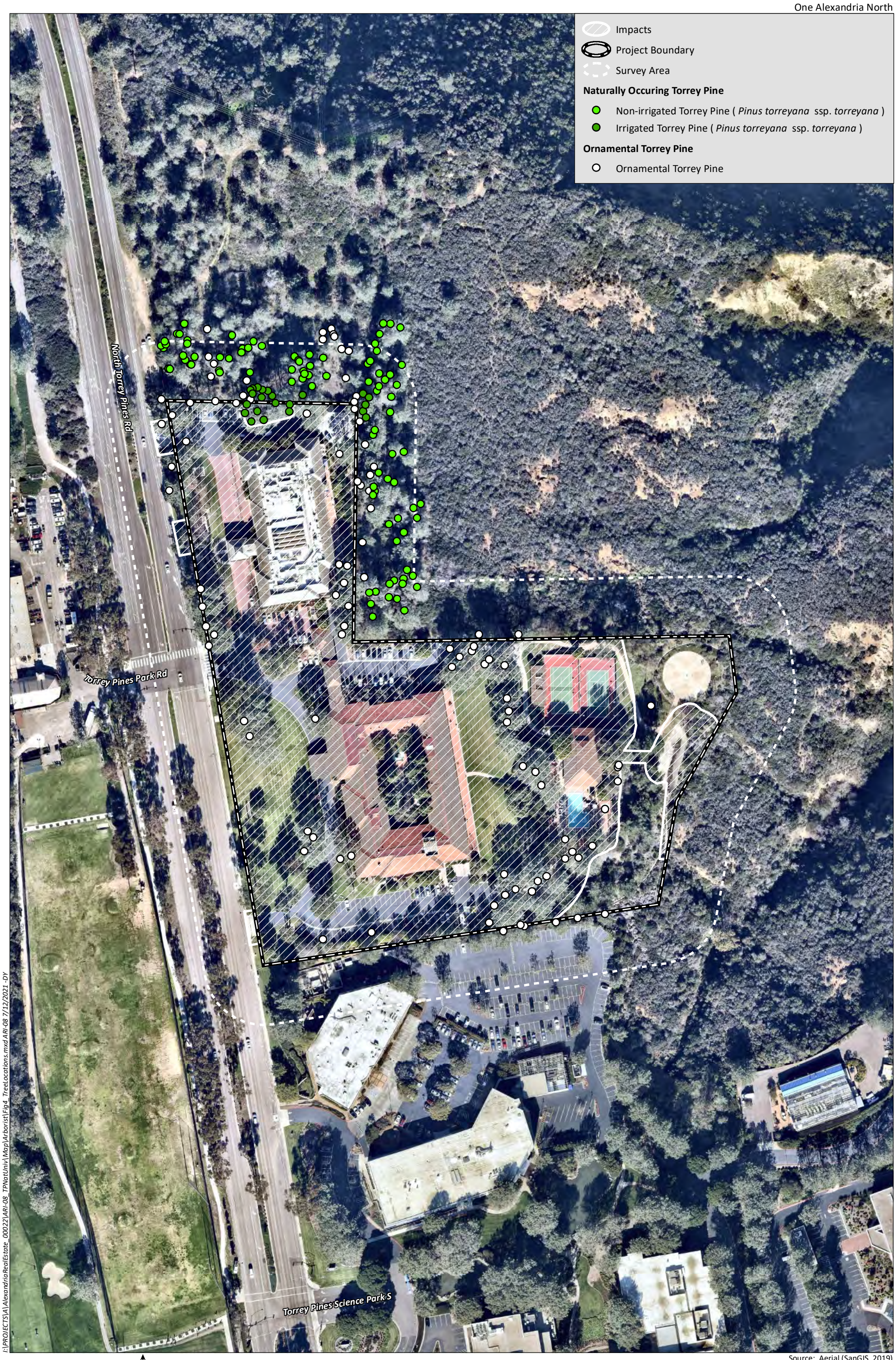
0 200 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 3



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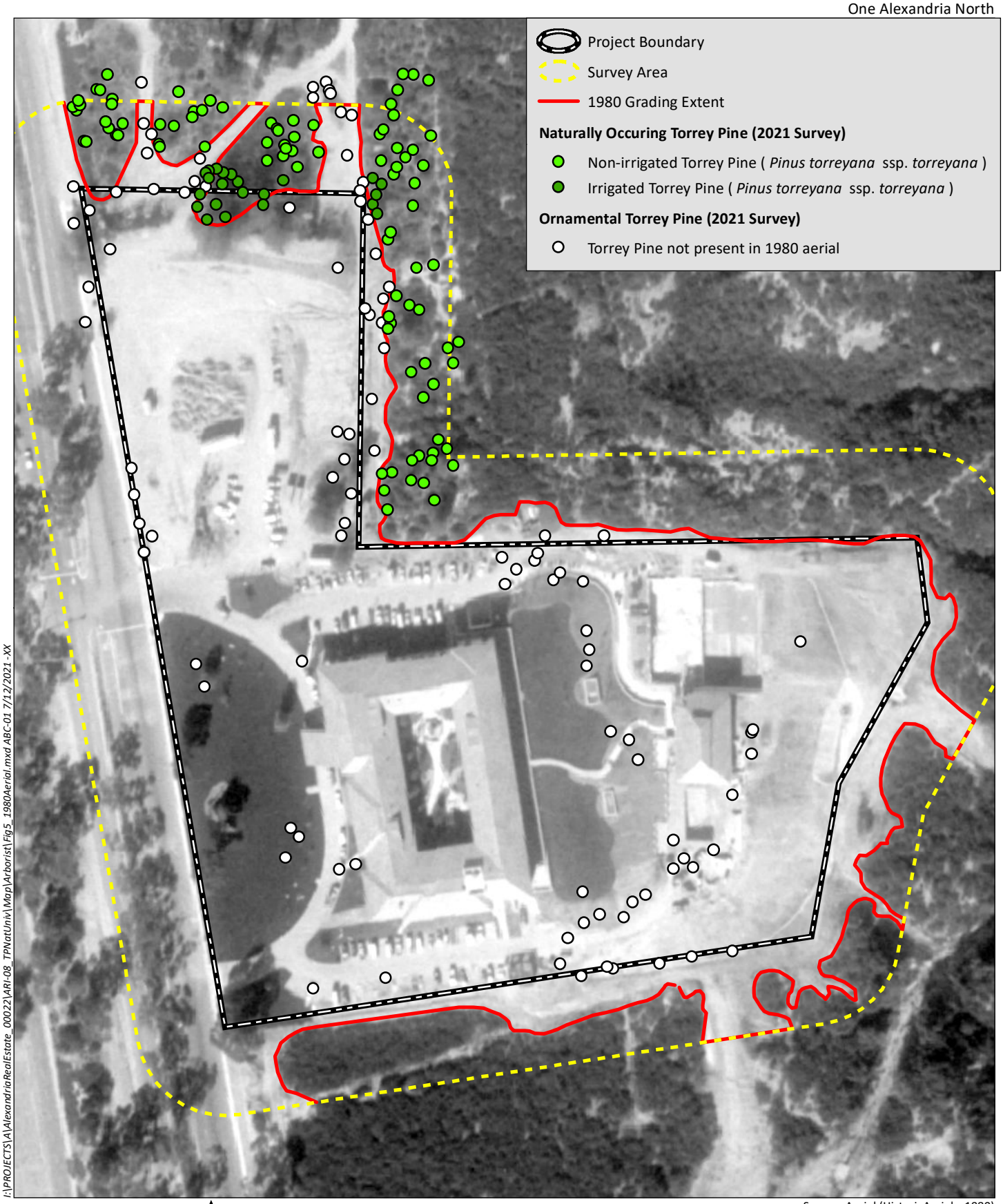
0 150 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Tree Locations

Figure 4



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0 150 Feet

Source: Aerial (HistoricAerials, 1980)

HELIX Environmental Planning

1980 Aerial

Figure 5

Appendix A
Tree Survey Results

Tree ID #	CommonName	SciName	DateObs	DBH (inches)	Height (ft)	Dripline (canopy width)	Health/Vigor (Good, Fair, Poor, Dead)
1	Torrey pine	*Pinus Torreyana*	1/4/21	24.5	60	20	good
2	Torrey pine	*Pinus Torreyana*	1/4/21	23	50	25	good
3	Torrey pine	*Pinus Torreyana*	1/4/21	24	50	30	good
4	Torrey pine	*Pinus Torreyana*	1/4/21	24.5	50	40	good
5	Torrey pine	*Pinus Torreyana*	1/4/21	31	50	40	good
6	Torrey pine	*Pinus Torreyana*	1/4/21	22.5	45	30	good
7	Torrey pine	*Pinus Torreyana*	1/4/21	11.5	25	20	good
8	Torrey pine	*Pinus Torreyana*	1/4/21	22	60	30	good
9	Torrey pine	*Pinus Torreyana*	1/4/21	11	45	20	good
10	Torrey pine	*Pinus Torreyana*	1/4/21	21	55	30	good
11	Torrey pine	*Pinus Torreyana*	1/4/21	13.5	50	25	good
12	Torrey pine	*Pinus Torreyana*	1/4/21	14.5	50	25	good
13	Torrey pine	*Pinus Torreyana*	1/4/21	28.5	45	50	good
14	Torrey pine	*Pinus Torreyana*	1/4/21	13	50	25	good
15	Torrey pine	*Pinus Torreyana*	1/4/21	11.5	55	20	good
16	Torrey pine	*Pinus Torreyana*	1/4/21	10.5	50	15	good
17	Torrey pine	*Pinus Torreyana*	1/4/21	7.5	45	10	good
18	Torrey pine	*Pinus Torreyana*	1/4/21	22	50	40	good
19	Torrey pine	*Pinus Torreyana*	1/4/21	21	55	30	good
20	Torrey pine	*Pinus Torreyana*	1/4/21	19	55	30	good
21	Torrey pine	*Pinus Torreyana*	1/4/21	13	50	20	good
22	Torrey pine	*Pinus Torreyana*	1/4/21	15	55	15	good
23	Torrey pine	*Pinus Torreyana*	1/4/21	18.5	45	30	good
24	Torrey pine	*Pinus Torreyana*	1/4/21	9.5	25	25	good
25	Torrey pine	*Pinus Torreyana*	1/4/21	20	50	35	good
26	Torrey pine	*Pinus Torreyana*	1/4/21	15.5	55	30	good
27	Torrey pine	*Pinus Torreyana*	1/4/21	13.5	45	25	good
28	Torrey pine	*Pinus Torreyana*	1/4/21	20	50	30	good
29	Torrey pine	*Pinus Torreyana*	1/4/21	5.5	20	10	good
30	Torrey pine	*Pinus Torreyana*	1/4/21	28.5	55	40	good
31	Torrey pine	*Pinus Torreyana*	1/4/21	16.5	40	30	good
32	Torrey pine	*Pinus Torreyana*	1/4/21	6	35	10	good
33	Torrey pine	*Pinus Torreyana*	1/4/21	28	50	30	good
34	Torrey pine	*Pinus Torreyana*	1/4/21	10.5	40	20	good
35	Torrey pine	*Pinus Torreyana*	1/4/21	25.5	60	30	good
36	Torrey pine	*Pinus Torreyana*	1/4/21	12.5	50	20	good
37	Torrey pine	*Pinus Torreyana*	1/4/21	15.5	50	20	good
38	Torrey pine	*Pinus Torreyana*	1/4/21	9.5	40	15	good
39	Torrey pine	*Pinus Torreyana*	1/4/21	6	30	15	good
40	Torrey pine	*Pinus Torreyana*	1/4/21	22	50	20	good
41	Torrey pine	*Pinus Torreyana*	1/4/21	17	48	22	good
42	Torrey pine	*Pinus Torreyana*	1/4/21	15.5	45	15	good
43	Torrey pine	*Pinus Torreyana*	1/4/21	7.5	30	15	good
44	Torrey pine	*Pinus Torreyana*	1/4/21	22	50	30	good
45	Torrey pine	*Pinus Torreyana*	1/4/21	14.5	40	30	good
46	Torrey pine	*Pinus Torreyana*	1/4/21	17.5	45	25	good
47	Torrey pine	*Pinus Torreyana*	1/4/21	20	50	25	good
48	Torrey pine	*Pinus Torreyana*	1/4/21	14	50	20	good
49	Torrey pine	*Pinus Torreyana*	1/4/21	12.5	45	20	good
50	Torrey pine	*Pinus Torreyana*	1/4/21	20.5	50	25	good
51	Torrey pine	*Pinus Torreyana*	1/4/21	11.5	45	12	good
52	Torrey pine	*Pinus Torreyana*	1/4/21	13	50	15	good
53	Torrey pine	*Pinus Torreyana*	1/4/21	23	50	30	good
54	Torrey pine	*Pinus Torreyana*	1/4/21	19	50	25	good
55	Torrey pine	*Pinus Torreyana*	1/4/21	14.5	50	20	good
56	Torrey pine	*Pinus Torreyana*	1/4/21	29.5	55	45	good
57	Torrey pine	*Pinus Torreyana*	1/4/21	15	50	15	good
58	Torrey pine	*Pinus Torreyana*	1/4/21	16	40	15	good
59	Torrey pine	*Pinus Torreyana*	1/4/21	18	45	25	good
60	Torrey pine	*Pinus Torreyana*	1/4/21	9	40	10	good
61	Torrey pine	*Pinus Torreyana*	1/4/21	16.5	40	30	good
62	Torrey pine	*Pinus Torreyana*	1/4/21	11	40	15	good
63	Torrey pine	*Pinus Torreyana*	1/4/21	10	50	20	good
64	Torrey pine	*Pinus Torreyana*	1/4/21	19.5	45	30	good
65	Torrey pine	*Pinus Torreyana*	1/4/21	10	40	15	good
66	Torrey pine	*Pinus Torreyana*	1/4/21	12	40	30	good
67	Torrey pine	*Pinus Torreyana*	1/4/21	13	15	20	good
68	Torrey pine	*Pinus Torreyana*	1/4/21	11	45	20	good
69	Torrey pine	*Pinus Torreyana*	1/4/21	11.5	45	20	good
70	Torrey pine	*Pinus Torreyana*	1/4/21	10	45	20	good
71	Torrey pine	*Pinus Torreyana*	1/4/21	15	45	12	good
72	Torrey pine	*Pinus Torreyana*	1/4/21	16	40	15	good
73	Torrey pine	*Pinus Torreyana*	1/4/21	17.5	40	20	good
74	Torrey pine	*Pinus Torreyana*	1/4/21	20	35	40	good
75	Torrey pine	*Pinus Torreyana*	1/4/21	14.5	40	25	good
76	Torrey pine	*Pinus Torreyana*	1/4/21	19	40	30	good
77	Torrey pine	*Pinus Torreyana*	1/4/21	13.5	37	15	good
78	Torrey pine	*Pinus Torreyana*	1/4/21	13	40	20	good
79	Torrey pine	*Pinus Torreyana*	1/4/21	6	20	15	good

Appendix A
Tree Survey Results

Tree ID #	CommonName	SciName	DateObs	DBH (inches)	Height (ft)	Dripline (canopy width)	Health/Vigor (Good, Fair, Poor, Dead)
80	Torrey pine	*Pinus Torreyana*	1/4/21	12	35	25	good
81	Torrey pine	*Pinus Torreyana*	1/4/21	7.5	30	15	good
82	Torrey pine	*Pinus Torreyana*	1/4/21	21	40	25	good
83	Torrey pine	*Pinus Torreyana*	1/4/21	12.5	40	20	good
84	Torrey pine	*Pinus Torreyana*	1/4/21	6	30	10	good
85	Torrey pine	*Pinus Torreyana*	1/4/21	6	25	10	good
86	Torrey pine	*Pinus Torreyana*	1/4/21	8.5	30	15	good
87	Torrey pine	*Pinus Torreyana*	1/4/21	7	35	15	good
88	Torrey pine	*Pinus Torreyana*	1/4/21	21	50	40	good
89	Torrey pine	*Pinus Torreyana*	1/4/21	4	15	10	good
90	Torrey pine	*Pinus Torreyana*	1/4/21	15	50	30	good
91	Torrey pine	*Pinus Torreyana*	1/5/21	9.5	50	20	good
92	Torrey pine	*Pinus Torreyana*	1/5/21	9	45	15	good
93	Torrey pine	*Pinus Torreyana*	1/5/21	6	30	10	good
94	Torrey pine	*Pinus Torreyana*	1/5/21	10	50	20	good
95	Torrey pine	*Pinus Torreyana*	1/5/21	14	50	15	good
96	Torrey pine	*Pinus Torreyana*	1/5/21	14	50	25	good
97	Torrey pine	*Pinus Torreyana*	1/5/21	9	45	10	good
98	Torrey pine	*Pinus Torreyana*	1/5/21	13.5	60	22	good
99	Torrey pine	*Pinus Torreyana*	1/5/21	11	55	20	good
100	Torrey pine	*Pinus Torreyana*	1/5/21	12.5	55	20	good
101	Torrey pine	*Pinus Torreyana*	1/5/21	9.5	55	18	good
102	Torrey pine	*Pinus Torreyana*	1/5/21	27.5	70	40	good
103	Torrey pine	*Pinus Torreyana*	1/5/21	23	55	30	good
104	Torrey pine	*Pinus Torreyana*	1/5/21	15	55	20	good
105	Torrey pine	*Pinus Torreyana*	1/5/21	20.5	60	20	good
106	Torrey pine	*Pinus Torreyana*	1/5/21	21.5	65	30	good
107	Torrey pine	*Pinus Torreyana*	1/5/21	20	60	20	good
108	Torrey pine	*Pinus Torreyana*	1/5/21	18	60	30	good
109	Torrey pine	*Pinus Torreyana*	1/5/21	18.5	60	25	good
110	Torrey pine	*Pinus Torreyana*	1/5/21	27	60	40	good
111	Torrey pine	*Pinus Torreyana*	1/5/21	26.5	60	40	good
112	Torrey pine	*Pinus Torreyana*	1/5/21	17	60	15	good
113	Torrey pine	*Pinus Torreyana*	1/5/21	15.5	60	20	good
114	Torrey pine	*Pinus Torreyana*	1/5/21	6	25	10	good
115	Torrey pine	*Pinus Torreyana*	1/5/21	10	40	20	good
116	Torrey pine	*Pinus Torreyana*	1/5/21	7	40	15	good
117	Torrey pine	*Pinus Torreyana*	1/5/21	11	45	15	good
118	Torrey pine	*Pinus Torreyana*	1/5/21	14	45	20	good
119	Torrey pine	*Pinus Torreyana*	1/5/21	10.5	45	15	good
120	Torrey pine	*Pinus Torreyana*	1/5/21	8.5	45	12	good
121	Torrey pine	*Pinus Torreyana*	1/5/21	8	35	20	good
122	Torrey pine	*Pinus Torreyana*	1/5/21	10	40	25	good
123	Torrey pine	*Pinus Torreyana*	1/5/21	10	30	15	good
124	Torrey pine	*Pinus Torreyana*	1/5/21	17	45	25	good
125	Torrey pine	*Pinus Torreyana*	1/5/21	22	50	30	good
126	Torrey pine	*Pinus Torreyana*	1/5/21	20.5	45	25	good
127	Torrey pine	*Pinus Torreyana*	1/5/21	23.5	50	30	good
128	Torrey pine	*Pinus Torreyana*	1/5/21	21.5	55	20	good
129	Torrey pine	*Pinus Torreyana*	1/5/21	33	60	40	good
130	Torrey pine	*Pinus Torreyana*	1/5/21	15.5	50	30	good
131	Torrey pine	*Pinus Torreyana*	1/5/21	17.5	55	25	good
132	Torrey pine	*Pinus Torreyana*	1/5/21	18	55	25	good
133	Torrey pine	*Pinus Torreyana*	1/5/21	12	40	18	good
134	Torrey pine	*Pinus Torreyana*	1/5/21	15	35	20	good
135	Torrey pine	*Pinus Torreyana*	1/5/21	9	40	25	good
136	Torrey pine	*Pinus Torreyana*	1/5/21	12	50	15	good
137	Torrey pine	*Pinus Torreyana*	1/5/21	6	40	10	good
138	Torrey pine	*Pinus Torreyana*	1/5/21	13	45	12	good
139	Torrey pine	*Pinus Torreyana*	1/5/21	11	40	16	good
140	Torrey pine	*Pinus Torreyana*	1/5/21	14	45	20	good
141	Torrey pine	*Pinus Torreyana*	1/5/21	8	45	10	good
142	Torrey pine	*Pinus Torreyana*	1/5/21	10	45	10	good
143	Torrey pine	*Pinus Torreyana*	1/5/21	14	45	15	good
144	Torrey pine	*Pinus Torreyana*	1/5/21	13	45	12	good
145	Torrey pine	*Pinus Torreyana*	1/5/21	13	45	14	good
146	Torrey pine	*Pinus Torreyana*	1/5/21	16	40	20	good
147	Torrey pine	*Pinus Torreyana*	1/5/21	17	45	22	good
148	Torrey pine	*Pinus Torreyana*	1/5/21	5.5	30	10	good
149	Torrey pine	*Pinus Torreyana*	1/5/21	14.5	45	24	good
150	Torrey pine	*Pinus Torreyana*	1/5/21	11	40	15	good
151	Torrey pine	*Pinus Torreyana*	1/5/21	12	40	20	good
152	Torrey pine	*Pinus Torreyana*	1/5/21	12.5	40	20	good
153	Torrey pine	*Pinus Torreyana*	1/5/21	15.5	40	25	good
154	Torrey pine	*Pinus Torreyana*	1/5/21	5.5	30	8	good
155	Torrey pine	*Pinus Torreyana*	1/5/21	18	40	25	good
156	Torrey pine	*Pinus Torreyana*	1/5/21	5.5	15	14	good
157	Torrey pine	*Pinus Torreyana*	1/5/21	7.5	25	15	good
158	Torrey pine	*Pinus Torreyana*	1/5/21	13	45	20	good

Appendix A
Tree Survey Results

Tree ID #	CommonName	SciName	DateObs	DBH (inches)	Height (ft)	Dripline (canopy width)	Health/Vigor (Good, Fair, Poor, Dead)
159	Torrey pine	*Pinus Torreyana*	1/5/21	13.5	40	15	good
160	Torrey pine	*Pinus Torreyana*	1/5/21	13	50	18	good
161	Torrey pine	*Pinus Torreyana*	1/5/21	38	50	35	good
162	Torrey pine	*Pinus Torreyana*	1/5/21	30	70	25	good
163	Torrey pine	*Pinus Torreyana*	1/5/21	44	65	40	good
164	Torrey pine	*Pinus Torreyana*	1/5/21	33.5	40	30	good
165	Torrey pine	*Pinus Torreyana*	1/5/21	23	50	20	good
166	Torrey pine	*Pinus Torreyana*	1/5/21	32	55	40	good
167	Torrey pine	*Pinus Torreyana*	1/5/21	33	65	30	good
168	Torrey pine	*Pinus Torreyana*	1/5/21	26.5	60	25	good
169	Torrey pine	*Pinus Torreyana*	1/5/21	33.5	50	40	good
170	Torrey pine	*Pinus Torreyana*	1/5/21	36.5	50	40	good
171	Torrey pine	*Pinus Torreyana*	1/5/21	17.5	25	20	good
172	Torrey pine	*Pinus Torreyana*	1/5/21	31	60	30	good
173	Torrey pine	*Pinus Torreyana*	1/5/21	26	60	25	good
174	Torrey pine	*Pinus Torreyana*	1/5/21	28.5	60	30	good
175	Torrey pine	*Pinus Torreyana*	1/5/21	16	45	15	good
176	Torrey pine	*Pinus Torreyana*	1/5/21	26.5	45	30	good
177	Torrey pine	*Pinus Torreyana*	1/5/21	24	40	25	good
178	Torrey pine	*Pinus Torreyana*	1/5/21	23.5	50	26	good
179	Torrey pine	*Pinus Torreyana*	1/5/21	33	50	40	good
180	Torrey pine	*Pinus Torreyana*	1/5/21	20	50	20	good
181	Torrey pine	*Pinus Torreyana*	1/5/21	29	55	30	good
182	Torrey pine	*Pinus Torreyana*	1/5/21	36	50	40	good
183	Torrey pine	*Pinus Torreyana*	1/5/21	29	50	35	good
184	Torrey pine	*Pinus Torreyana*	1/5/21	29.5	55	25	good
185	Torrey pine	*Pinus Torreyana*	1/5/21	21.5	45	30	good
186	Torrey pine	*Pinus Torreyana*	1/5/21	26	40	30	good
187	Torrey pine	*Pinus Torreyana*	1/5/21	6	20	15	good
188	Torrey pine	*Pinus Torreyana*	1/5/21	6	25	15	good
189	Torrey pine	*Pinus Torreyana*	1/6/21	8.5	30	18	good
190	Torrey pine	*Pinus Torreyana*	1/6/21	9	28	16	good
191	Torrey pine	*Pinus Torreyana*	1/6/21	6.5	25	20	good
192	Torrey pine	*Pinus Torreyana*	1/6/21	24.5	35	30	good
193	Torrey pine	*Pinus Torreyana*	1/6/21	16	45	25	good
194	Torrey pine	*Pinus Torreyana*	1/6/21	15.5	45	25	good
195	Torrey pine	*Pinus Torreyana*	1/6/21	28.5	50	30	good
196	Torrey pine	*Pinus Torreyana*	1/6/21	18.5	40	20	good
197	Torrey pine	*Pinus Torreyana*	1/6/21	32.5	50	40	good
198	Torrey pine	*Pinus Torreyana*	1/6/21	34.5	60	50	good
199	Torrey pine	*Pinus Torreyana*	1/6/21	45	60	45	good
200	Torrey pine	*Pinus Torreyana*	1/6/21	41.5	55	50	good
201	Torrey pine	*Pinus Torreyana*	1/6/21	23	45	25	good
202	Torrey pine	*Pinus Torreyana*	1/6/21	26	45	25	good
203	Torrey pine	*Pinus Torreyana*	1/6/21	22.5	45	30	good
204	Torrey pine	*Pinus Torreyana*	1/6/21	19.5	45	20	good
205	Torrey pine	*Pinus Torreyana*	1/6/21	29	50	40	good
206	Torrey pine	*Pinus Torreyana*	1/6/21	23	50	35	good
207	Torrey pine	*Pinus Torreyana*	1/6/21	21.5	50	25	good
208	Torrey pine	*Pinus Torreyana*	1/6/21	33	50	45	good
209	Torrey pine	*Pinus Torreyana*	1/6/21	32	50	35	good
210	Torrey pine	*Pinus Torreyana*	1/6/21	38	52	44	good
211	Torrey pine	*Pinus Torreyana*	1/6/21	20	55	36	good
212	Torrey pine	*Pinus Torreyana*	1/6/21	12	20	20	good
213	Torrey pine	*Pinus Torreyana*	1/6/21	16.5	30	22	good

Photograph 1: A mixture of native and landscaped Torrey pines along the northern boundary of the project. Facing north; 01/04/2021.

Photograph 2: A landscaped Torrey Pine growing along the boundary of the project site. Facing east; 01/06/2021.

Photograph 4: A cluster of native Torrey pines immediately outside the project boundary. Facing west; 01/05/2021.

Photograph 5: A landscaped Torrey pine along the southeastern portion of the project site. Facing north; 01/06/2021.

Appendix H

Multi-habitat Planning Area Boundary Line Correction Supporting Documentation

Appendix H
Multi-habitat Planning Area Boundary Line Correction
Supporting Documentation

October 8, 2021

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 11.4-acre One Alexandria North Project site is located in the community of Torrey Pines in the City of San Diego (City), San Diego County, California (Figure 1, *Regional Location*). It lies within an unsectioned portion of Township 14 South, Range 4 West of the Del Mar U.S. Geological Survey (USGS) 7.5-minute quadrangle map (Figure 2, *USGS Topography*). The site is generally located east of the Pacific Ocean and south, west of Interstate-5, south of Del Mar, and north of La Jolla (Figure 1). The site is specifically located at 11255 and 11355 N Torrey Pines Rd, La Jolla, CA 92037 (Accessor's Parcel Numbers [APNs] 310-110-13-00 and 310-110-14-00), west of Torrey Pines State Reserve (Figure 3, *Aerial Vicinity*). The site is located within the City's Multiple Species Conservation Program (MSCP) Subarea Plan and Coastal Zone. Sections of the eastern portion of the project site abut and encompass portions of the MHPA. U.S. Fish and Wildlife Service-designated critical habitat does not occur within or near the proposed project.

PROJECT DESCRIPTION

The project consists of the redevelopment of the current National University - La Jolla, California Academic Headquarters into a two-building research and development campus with supporting amenities and a parking structure. Current property improvements include two commercial buildings with two stories each, a stand-alone amenity building, tennis courts, a pool, a helipad, and a water quality basin. The two existing buildings at 11255 N. Torrey Pines Road and 11355 N. Torrey Pines Road and surrounding improvements will be demolished prior to development. The total project floor area will be 256,500 square feet. The project permits would include a Coastal Development Permit, a site Development Permit, a Neighborhood Development Permit, and a Tentative Parcel Map.

The renovation of the existing structure and the expansion and improvement of the existing storm water basin will occur within a combined 0.1 acre currently mapped as part of the City's MHPA. Each area proposed for MHPA boundary correction area is less than 0.1 acre. These areas are primarily made up of developed land and disturbed southern maritime chaparral habitat 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 in the early 1980's, as further discussed in the "Impacts" section of this report.

ENVIRONMENTAL SETTING

The site is situated in the community of Torrey Pines in a mixed-use area. Surrounding land uses include North Torrey Pines Road directly abutting the western boundary of the site, commercial development, recreational development such as Torrey Pines Golf Course, and open space areas, including the Torrey Pines State Nature Reserve to the north and east. Interstate-5 is located further east of the site.

The majority of the project site is confined to the existing developed areas of the National University - La Jolla, California Academic Headquarters west of North Torrey Pines Road. Historical aerials of the site

indicated a paved reservoir was built on the western section of the project site sometime prior to 1953 (HistoricalAerials.com, 2021). Development of the site originally occurred sometime between 1978 and 1980, and the site was further developed in the mid-1980s (Figure 4, *Previous Site Development Map [1980 Aerial]*).

Elevations on the proposed project range from approximately 360 feet to 430 feet above mean sea level. The topography is generally flat, sloping from west to east, with the terrain modified to serve the land use of the site. Two soil types were mapped within the study area (USDA 2020): Carlsbad gravelly loamy sand, 5 to 9 percent slopes, and Carlsbad gravelly loamy sand, 9 to 15 percent slopes.

EXISTING VEGETATION COMMUNITIES

The proposed project site supports three vegetation communities and land uses: southern maritime chaparral (including disturbed), non-native vegetation-Italian Stone Pine, and developed land (Figure 5, *Vegetation and Sensitive Resources*; Table 1, *Existing Vegetation Communities/Land Uses within the Proposed Project*). Additional vegetation communities observed within 100 feet of the project site include Torrey Pines Forest (Figure 5). The proposed project is primarily developed, with some habitat variation along the eastern edge of the property boundary.

Table 1
EXISTING VEGETATION COMMUNITIES/LAND USES
WITHIN THE PROPOSED PROJECT

Vegetation Community/Habitat	MSCP Tier[1]	Existing (acres)[2]		
		Within MHPA[3]	Outside MHPA	Total
Southern Maritime Chaparral (37C00)	I	0.1	0.1	**0.1**
Disturbed Southern Maritime Chaparral (37C00)	I	0.2	0.6	**0.9**
Non-Native Vegetation – Italian Stone Pine	IV	--	0.1	**0.1**
Developed (12000)	V	<0.1	10.2	**10.3**
	TOTAL	**0.3**	**11.1**	**11.4**

[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

The proposed project would result in direct impacts to less than 0.1 acre of southern maritime chaparral within MHPA and 0.3 acre of disturbed southern maritime chaparral, including 0.1 acre of impacts within MHPA. An additional 10.0 acres of developed area, including 0.1 acre of off-site improvements, and less than 0.1 acre non-native vegetation will also be impacted as a result of the proposed project (Figure 6, *Vegetation and Sensitive Resources/Impacts*; Table 2, *Impacts to Vegetation Communities*). All impacts to sensitive upland habitat will require mitigation. Mitigation for direct impacts to 0.3 acre of southern maritime chaparral (including disturbed) shall be mitigated at a 2:1 ratio at the Callan Road mitigation site (APN 340-010-45).

Appendix H (cont.)
Multi-habitat Planning Area Boundary Line Correction
Supporting Documentation

Table 2
IMPACTS TO VEGETATION COMMUNITIES

Vegetation Community/Habitat	MSCP Tier[1]	Impacts (acre)[2]		
		Within MHPA[3]	Outside MHPA	Total
Southern Maritime Chaparral (37C00)	I	<0.1	--	**<0.1**
Disturbed Southern Maritime Chaparral (37C00)	I	0.2	0.1	**0.3**
Non-Native Vegetation – Italian Stone Pine	IV	--	<0.1	**<0.1**
Developed (12000)	V	<0.1	10.0	**10.0**
	TOTAL	**0.2**	**10.1**	**10.3**

[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.

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 0.1 acres of land within the current limits of the MHPA, made up of less than 0.1 acre of southern maritime chaparral, 0.1 acres of disturbed southern maritime chaparral, and less than 0.1 acre of developed land (Figure 7, *MHPA Boundary Line Correction*).

While the project site supports a total of 0.1 acre of disturbed and undisturbed southern maritime chaparral habitat within the MHPA, these areas were entirely graded and cleared in 1980 during the initial property development, approximately 17 years prior to the adoption and implementation of the MSCP and MHPA (Figure 4). A review of aerial imagery from 1980 through 1993 indicates that these areas remained relatively devoid of vegetation until the installation of landscaping in 1990 and 1993. In addition, an existing concrete water quality basin and v-ditch were installed along the property boundary currently mapped as MHPA in 1980. These areas had continued to be a part of the existing National University campus prior to the adoption of the MSCP, consisting of two buildings, amenities, parking areas, water quality basin, and maintained areas. The One Alexandria North Project proposes renovations in these areas consisting of the replacement of an existing building with a parking structure and renovation and improvement of the existing water quality basin. In addition, the current concrete v-ditch outfall will be replaced with an underground pipe for approximately 118 feet before daylighting into the remaining concrete v-ditch. The area that will be temporarily impacted during pipe installation will be revegetated following the completion of construction.

Appendix H (cont.)
Multi-habitat Planning Area Boundary Line Correction
Supporting Documentation

Table 3
MHPA BOUNDARY LINE CORRECTION SUMMARY

Vegetation Community	MSCP Tier[1]	MHPA BLC[2]
Southern Maritime Chaparral (37C00)[3]	I	<0.1
Disturbed Southern Maritime Chaparral (37C00)	I	0.2
Developed (12000)	V	<0.1
	TOTAL	**0.2**

[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] A total of 522 square feet of southern maritime chaparral habitat is proposed for removal with this MHPA BLC.

Area 1

Area 1 is less than 0.1 acre along the eastern edge of the northeast portion of the site. As shown in the 1980 imagery, this area was fully cleared and impacted as part of the initial site development prior to the adoption of the MSCP. A portion of this area is currently developed as part of the National University campus, and the remainder of this area supports disturbed southern maritime chaparral that has regrown over the last 20 years; however, this area appears to have been subject to regular maintenance and trimming through 2016. Proposed renovations in this area consist of a portion of a water quality basin and landscaping that would exist to the east of the proposed parking lot.

Area 2

Area 2 totals 0.2 acre along the eastern edge of the southeast portion of the site. As shown in the 1980 imagery, this area was fully cleared and impacted as part of the initial site development prior to the adoption of the MSCP. This area currently supports a three-foot-wide concrete v-ditch as well as southern maritime chaparral (including the disturbed phase) that has regrown over the last 18 years. Proposed renovations in this area consist of improvements of an existing water quality basin, replacement of a portion of the existing concrete v-ditch with an underground pipe for approximately 118 feet, and connection to the existing concrete v-ditch. Only the necessary portion of the project site is proposed for removal from the MHPA. The southern maritime chaparral in the southeast portion of the project that supports two sensitive species (wart-stemmed ceanothus and Nuttall's scrub oak) is proposed to remain in the MHPA.

The proposed MHPA BLC would result in a net loss to the MHPA of 0.1 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 cleared and impacted in 1980, prior to the adoption of the MSCP in 1997.
- No wetlands or wetland buffer areas would be impacted by the project. No wetland habitat occurs within 100 feet of the property (Figure 5).

Appendix H (cont.)
Multi-habitat Planning Area Boundary Line Correction
Supporting Documentation

- Approximately 0.1 acre of sensitive species habitat (southern maritime chaparral) would be removed from the MHPA as a result of the BLC (Figure 7). Due to the small size, the proposed MHPA BLC is not anticipated to have a negative effect on habitat linkages, wildlife corridors, or the management efficiency of the preserve. 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 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 improvement of an existing water quality basin along the southeastern portion of the project to capture storm water runoff from the site. The project also includes the replacement and improvement of the associated outfall. A small portion of the existing concrete v-ditch will be replaced with an underground pipe for approximately 118 feet before daylighting into the remaining concrete v-ditch. 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 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 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, the lighting would be directed away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

    - Construction during the bird breeding season will be avoided; if construction must occur during the breeding season, a pre-construction survey for nesting birds will occur prior to the start of construction.

    - Barriers to incursions, such as fences, will be utilized along the eastern 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 commercial development; therefore, domestic animal incursion and predation are not anticipated within MHPA.

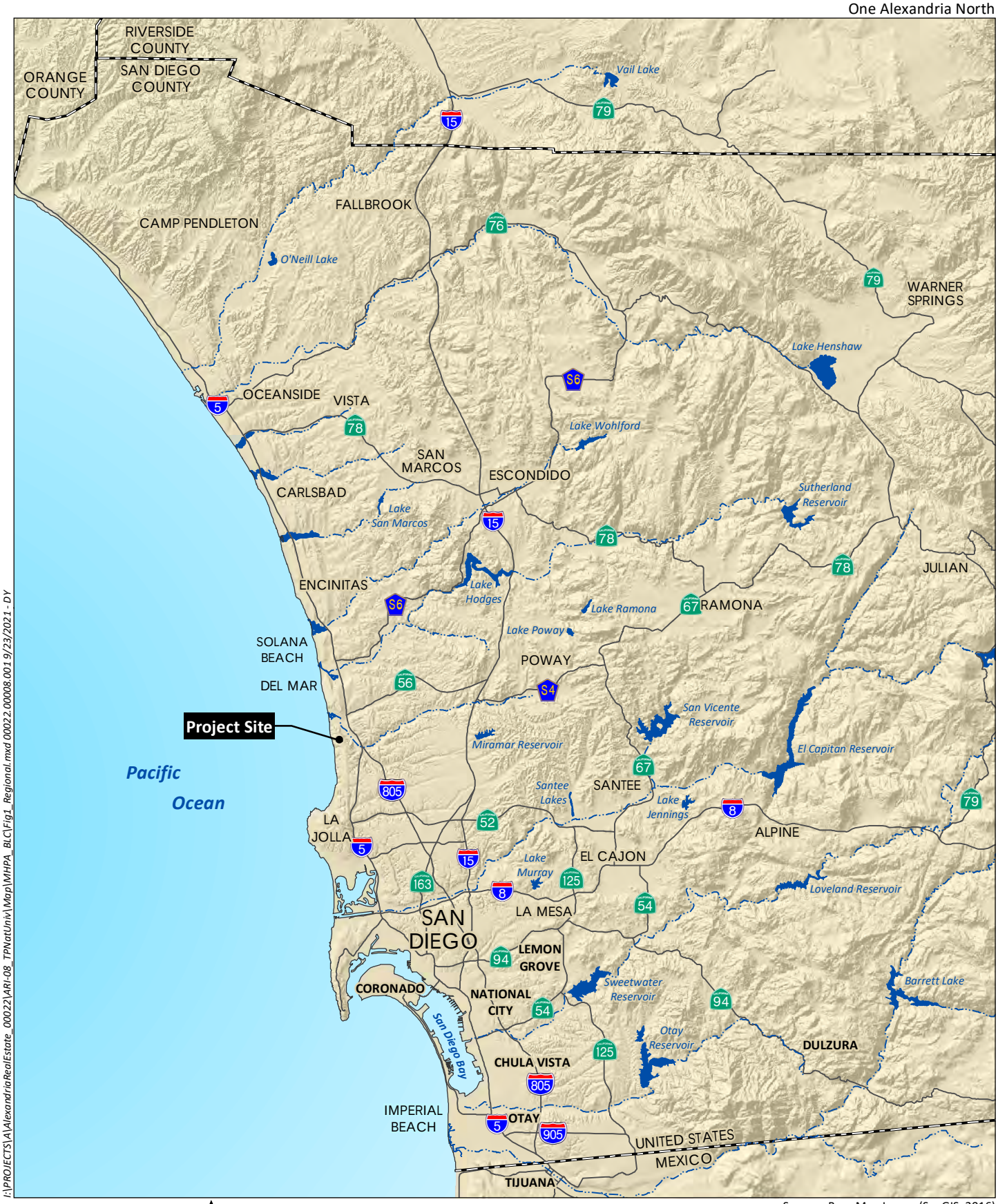
    - All equipment shall be clean and free of debris and mud prior to entering the project site to reduce the potential for the introduction of invasive plant species. Furthermore, no invasive plant species will be included in project landscaping.

Appendix H (cont.)
Multi-habitat Planning Area Boundary Line Correction
Supporting Documentation

- The proposed project is subject to brush management, as habitable premises are located within 100 feet of a structure and contain native or naturalized vegetation. To minimize brush management within the Torrey Pines State Reserve, the project will implement a defensible space along the southeastern project boundaries where the structure is located, within 100 feet of native or naturalized vegetation.

- All manufactured slopes associated with the project development are included in the project footprint.

- 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\A\AlexandriaRealEstate_00022\ARI-08_TPNatUniv\Map\MHPA_BLC\Fig1_Regional.mxd 00022.00008.001 9/23/2021 - DY

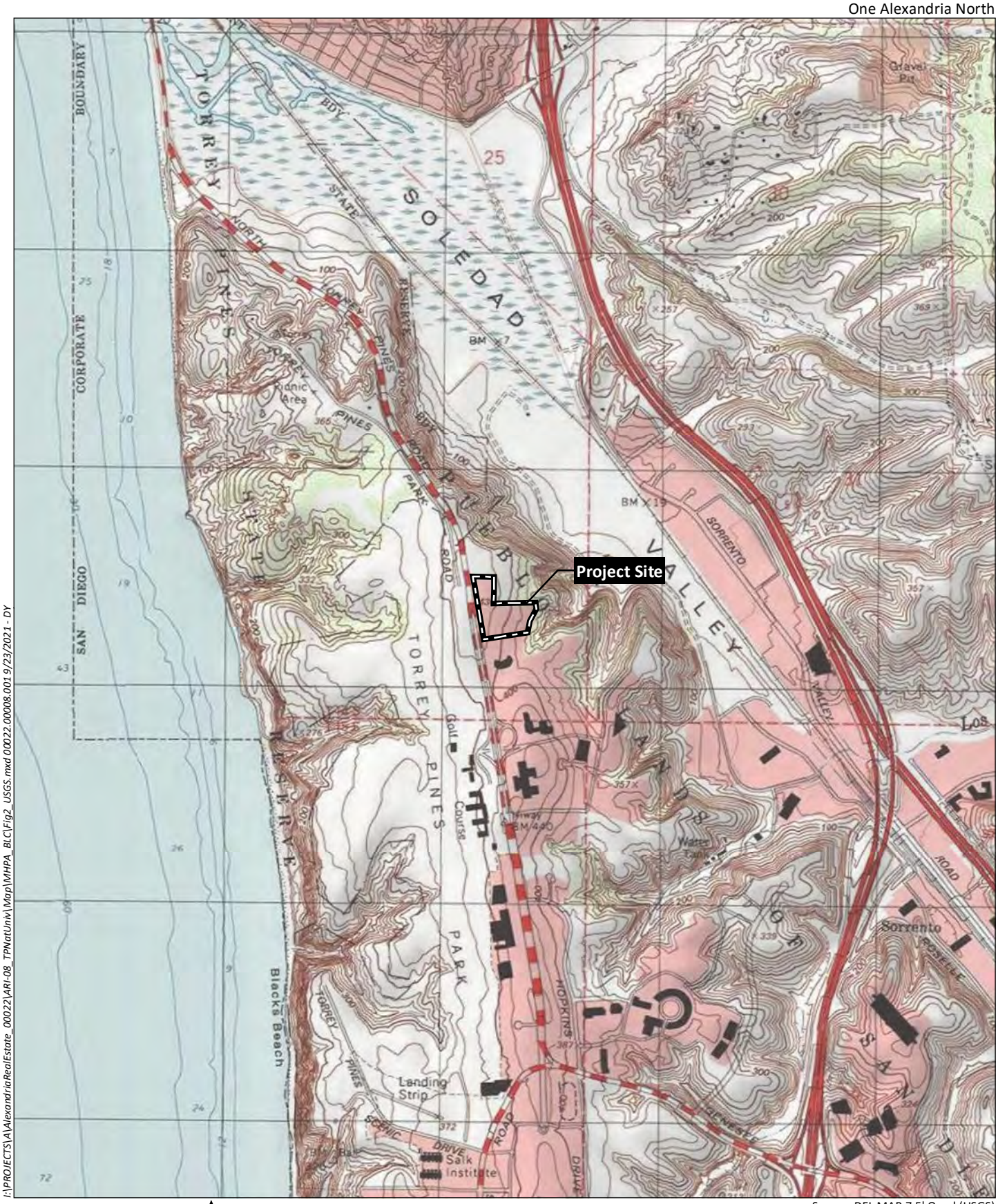
0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



I:\PROJECTS\A\AlexandriaRealEstate_00022\ARI-08_TPNatUniv\Map\MHPA_BLC\Fig2_USGS.mxd 00022.00008.001 9/23/2021 - DY

0 2,000 Feet

Source: DEL MAR 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

I:\PROJECTS\A\AlexandriaRealEstate_00022\ARI-08_TPNatUniv\Map\MHPA_BLC\Fig3_Aerial.mxd ARI-08 10/7/2021 -DY

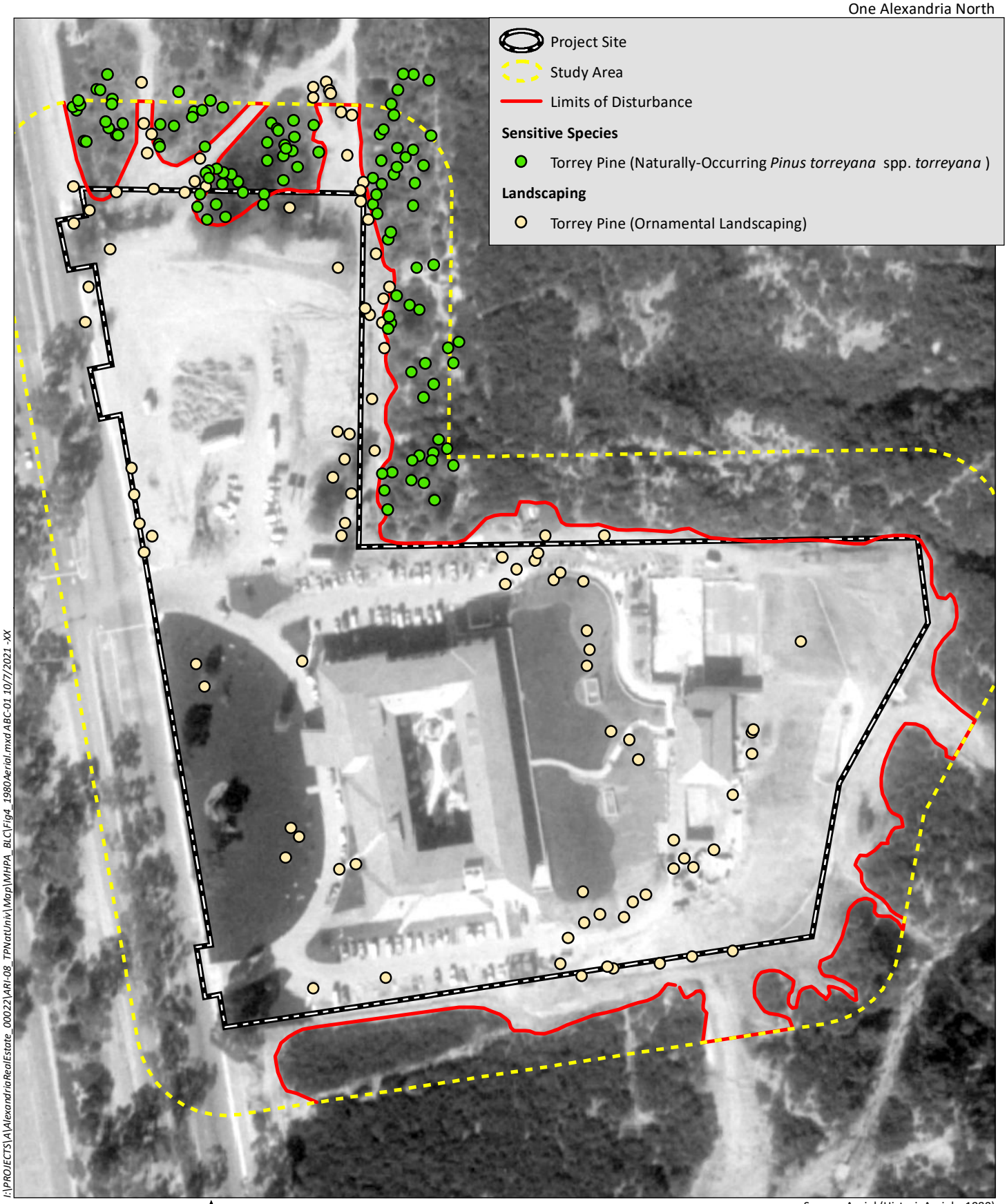
0 200 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Aerial Photograph

Figure 3



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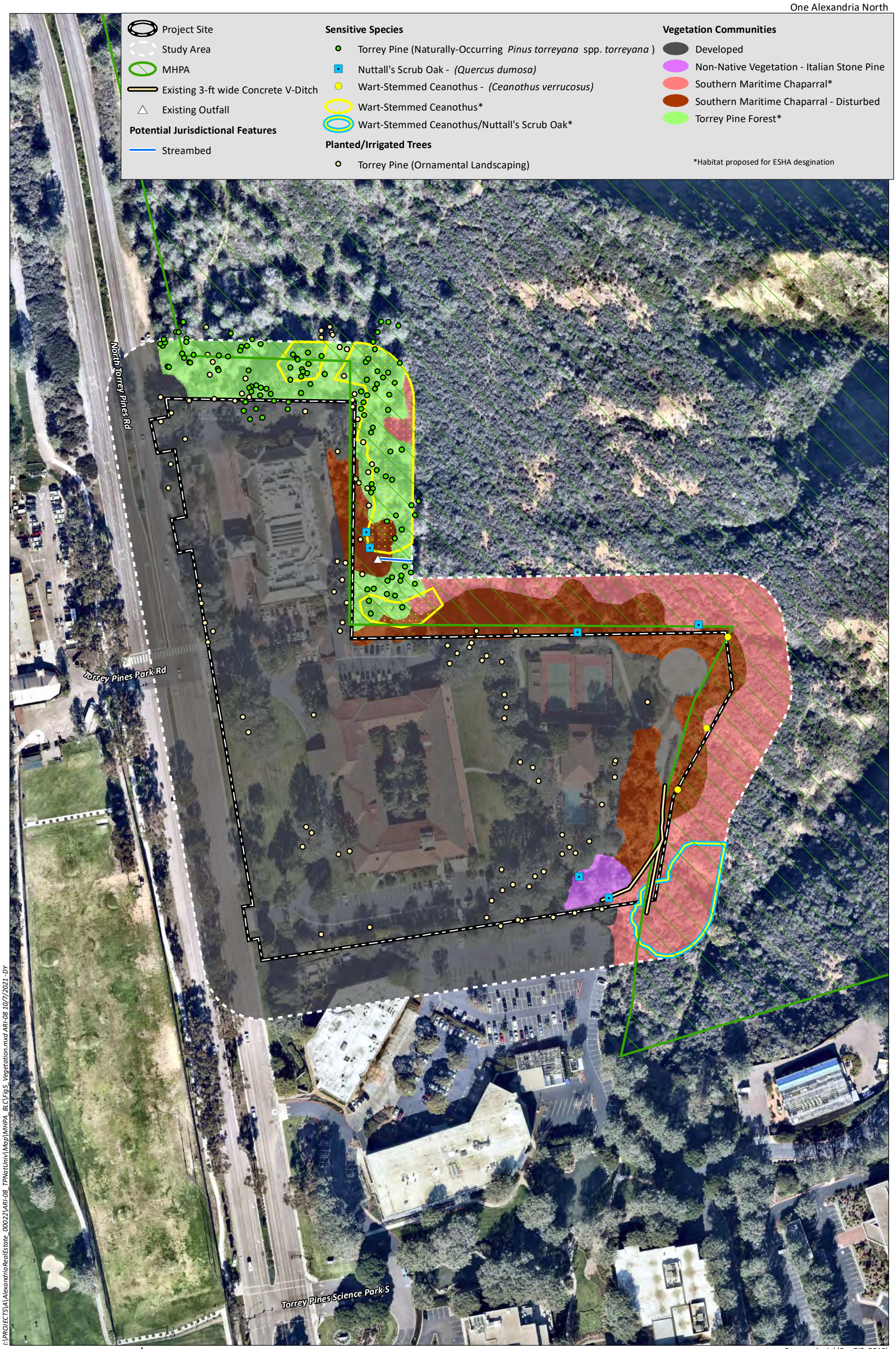
0 150 Feet

Source: Aerial (HistoricAerials, 1980)

HELIX Environmental Planning

Previous Site Development Map (1980 Aerial)

Figure 4



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HELIX Environmental Planning

Vegetation Communities and Sensitive Resources

Figure 5

Project Site
Study Area
MHPA
Existing 3-ft wide Concrete V-Ditch
Existing Outfall

Impacts

Permanent
Temporary

Potential Jurisdictional Features

Streambed

Sensitive Species

Torrey Pine (Naturally-Occurring *Pinus torreyana* spp. *torreyana*)
Nuttall's Scrub Oak - *(Quercus dumosa)*
Wart-Stemmed Ceanothus - *(Ceanothus verrucosus)*
Wart-Stemmed Ceanothus*
Wart-Stemmed Ceanothus/Nuttall's Scrub Oak*

Planted/Irrigated Trees

Torrey Pine (Ornamental Landscaping)

Vegetation Communities

Developed
Non-Native Vegetation - Italian Stone Pine
Southern Maritime Chaparral*
Southern Maritime Chaparral - Disturbed
Torrey Pine Forest*

*Habitat proposed for ESHA desgination

North Torrey Pines Rd
Torrey Pines Park Rd
Torrey Pines Science Park S

I:\PROJECTS\A\AlexandriaRealEstate_00022\ARI-08_TPNatUniv\Map\MHPA_BLC\Fig6_Impacts.mxd ARI-08 10/7/2021 -DY

0 150 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Impacts

Figure 6

Project Site
Study Area
MHPA
MHPA Correction
Existing 3-ft wide Concrete V-Ditch
Existing Outfall

Potential Jurisdictional Features

Streambed

Sensitive Species

Torrey Pine (Naturally-Occurring *Pinus torreyana* spp. *torreyana*)
Nuttall's Scrub Oak - *(Quercus dumosa)*
Wart-Stemmed Ceanothus - *(Ceanothus verrucosus)*
Wart-Stemmed Ceanothus*
Wart-Stemmed Ceanothus/Nuttall's Scrub Oak*

Planted/Irrigated Trees

Torrey Pine (Ornamental Landscaping)

Vegetation Communities

Developed
Non-Native Vegetation - Italian Stone Pine
Southern Maritime Chaparral*
Southern Maritime Chaparral - Disturbed
Torrey Pine Forest*

*Habitat proposed for ESHA desgination

Area 1

Area 2

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0 80 Feet

Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

MHPA Correction

Figure 7