
APPENDIX D.
BIOLOGICAL TECHNICAL REPORT

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Biological Technical Report for the Piraeus Point Project

Encinitas, San Diego County, California

APN 254-144-01-00
APN 216-110-35-00

Prepared For:

Lennar Homes of California, LLC
16465 Via Esprillo, Suite 150
San Diego, CA 92127

Prepared By:



3838 Camino Del Rio North
Suite 370
San Diego, California 92108

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
APN	Assessor's Parcel Number
BCLA	Biological Core and Linkage Area
BTR	Biological Technical Report
CAL FIRE	California Department of Forestry and Fire Protection
CCC	California Coastal Commission
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
ECORP	ECORP Consulting, Inc.
ESA	Endangered Species Act
FMZ	Fuel Modification Zone
FP	Fully Protected
FPA	Focused Planning Area
GPS	Global Positioning System
HCP	Habitat Conservation Plan
LBZ	Limited Building Zone
LCP	Local Coastal Program
MBTA	Migratory Bird Treaty Act
MHCP	Multiple Habitat Conservation Program
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Proposed Project	Development Area and Preserve Area of the Piraeus Property
SANDAG	San Diego Association of Governments
SAP	Subarea Plan
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WL	Watch List

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey of an approximately 11.83-acre property for the proposed Piraeus Point Project (Proposed Project), located in the City of Encinitas (City) in San Diego County, California. The study was conducted to identify any potential biological resources that could be affected by the Proposed Project, pursuant to the terms of the California Environmental Quality Act (CEQA), and for the purposes of identifying any biological constraints that would affect the Proposed Project's site plan. The Proposed Project will be subject to federal, state, county, and city regulations for compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), California Fish and Game Code, California Coastal Act (Coastal Act), San Diego North County Multiple Habitat Conservation Program (MHCP) Plan, and the Draft Encinitas Subarea Plan (SAP).

1.1 Purpose of the Report

The study area consists of two parcels of land (Assessor's Parcel Numbers [APN] 254-144-01-00 and 216-110-35-00). The Proposed Project is limited to the southern parcel (APN 254-144-01-00). For the purposes of this report, the term Development Area refers to the areas proposed to be directly affected by implementation of the Proposed Project and corresponds to the client-supplied Project boundary. The Development Area includes the townhome property footprint (onsite impacts), offsite improvements (offsite impacts) required by the City adjacent to the Project boundary along Piraeus Street and Plato Place, and the Fuel Modification Zone (FMZ) which totals approximately 6.78 acres. The Preserve Area consists of lands planned to be preserved in perpetuity and left untouched in order to achieve mitigation for impacts due to development of the Proposed Project. The Preserve Area comprises the northern parcel (APN 216-110-35-00) and small northern portion of the southern parcel (APN 254-144-01-00) and totals approximately 5.51 acres. A San Diego Gas and Electric (SDGE) easement (0.02 acre) traverses east-west within the Preserve Area along the property line between the APNs.

1.2 Location and Setting

The Proposed Project is located in San Diego County in the City of Encinitas (Figure 1-1). It is located directly east of U.S. Interstate 5 (I-5) between Leucadia Boulevard and La Costa Avenue (Figure 1-2). The property inclusive of the Proposed Project, as depicted on the U.S. Geological Survey (USGS) Encinitas 7.5-minute topographic quadrangle, is located within Sections 4 and 33, Townships 12 and 13 South, Range 4 West.

1.3 Project Description

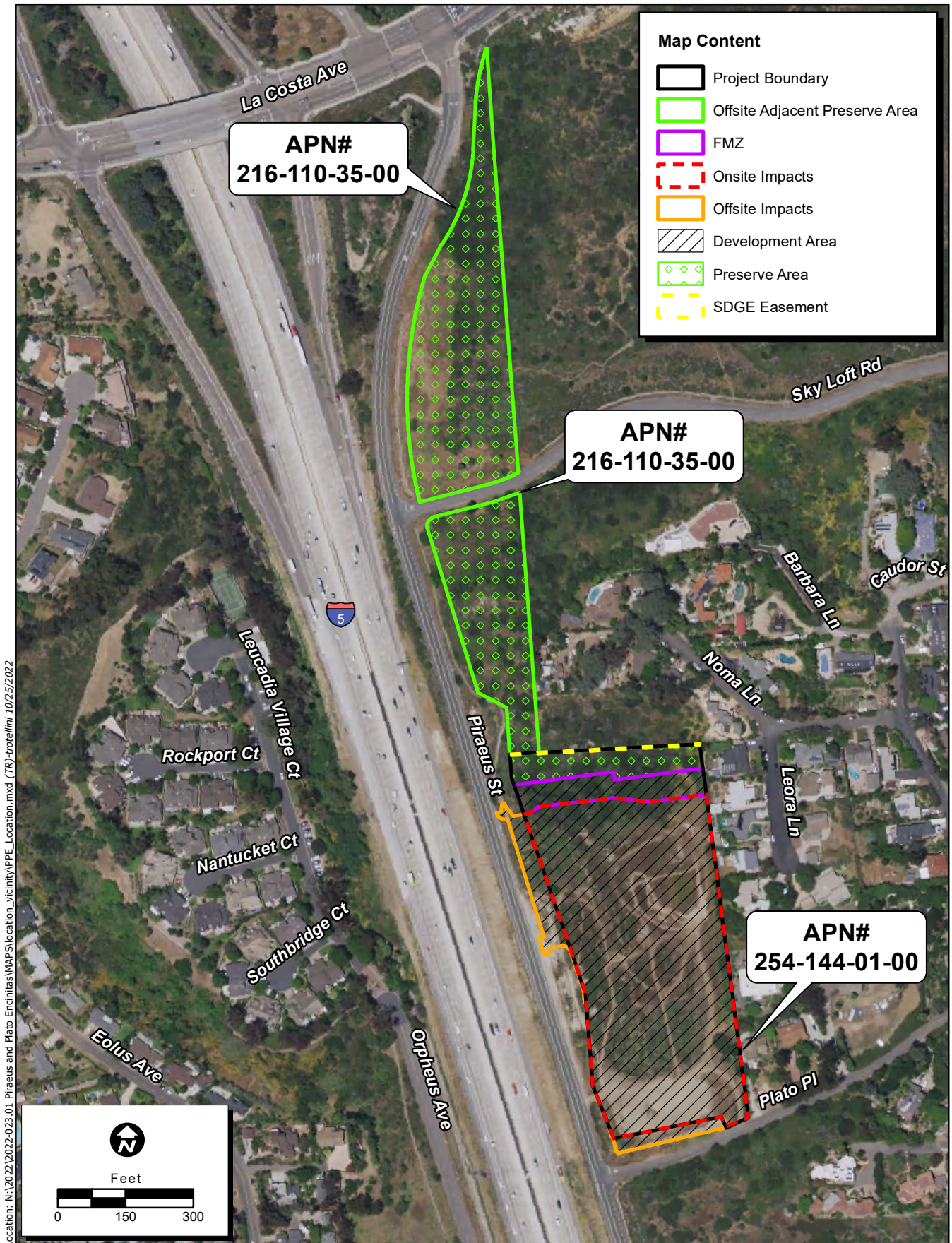
The Proposed Project entails the development of a 149-home modern townhome community. The Project will be utilizing State Density Bonus Law. A Design Review Permit and Coastal Development Permit (both issued by the City of Encinitas) are necessary to allow for development of the property located at the northeast corner of Piraeus Street and Plato Place (APN 254-144-01-00) in the Leucadia community of Encinitas.



Location: N:\2022\2022-023.01 Piraeus and Plato Encinitas\MAPS\location_vicinity\PPE_Vicinity.mxd (TR)-trdellini 2/17/2022

Map Date: 2/17/2022
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Figure 1-1. Project Vicinity
 2022-023.01 Piraeus and Plato Encinitas



Map Date: 10/25/2022

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), IGNCC, (c) OpenStreetMap contributors, and the GIS User Community Photo Source: NABP



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1-2. Project Location

2022-023.01 Piraeus Point

The Condominium Tentative Map is required to subdivide the 149 condominiums into separate parcels pursuant to the State of California Subdivision Map Act. The Street Vacation is to vacate excess right-of-way on a portion of Piraeus Street and a portion of Plato Place. The Design Review Permit is required in order to ensure Project consistency with design review guidelines established by the City of Encinitas. The Coastal Development Permit is required in conjunction with the issuance of the Design Review Permit, given the Project's location within the Coastal Zone.

The community would consist of 52 one-bedroom homes, 37 two-bedroom homes, and 60 three-bedroom homes for a total of 149 residential homes, which would be built within 16 separate three-story residential buildings. A total of 271 parking spaces are planned, including private garage spaces and outdoor shared parking. Proposed amenities include a pool, spa, pool house, and lounge seating. Of the 149 residential homes proposed in the community, 134 would be market-rate homes and 15 would be *very low* income affordable residential homes.

The Project site is currently vacant land. The site is one of 16 sites included in the City of Encinitas Housing Element Update, which was adopted by the City of Encinitas on March 13, 2019. As part of that Housing Element Update, a portion of the Project site was designated with an R-30 overlay zone.

Surrounding land uses include single-family residences to the east and south, Piraeus Street and Interstate 5 to the west, and vacant land to the north.

Additionally, the establishment and maintenance of a Fuel Modification Zone (FMZ) to the north of the townhomes would be required for the Proposed Project. It is located within a Very High Fire Hazard Severity Zone (California Department of Forestry and Fire Protection ([CAL FIRE] 2022). The FMZ proposed would include the clearing/modifying of trees and shrubs within 100 feet of the habitable structures as a wildland fire safety measure.

1.4 Environmental Setting

The Proposed Project is surrounded by residential development to the west, south, and east with open habitat to the north. The Proposed Project is within the Coastal Zone as defined by the California Coastal Commission (CCC, 2022). The Coastal Zone extends three nautical miles offshore and the Project is approximately 4,500 feet from the California coastline. Topography of the site is relatively flat within the Development Area with slopes on the western and northern edge. There is a steep drop where the Development Area meets the Preserve Area. Within the Preserve Area, a steep slope occurs in a northeasterly direction. Elevation ranges from 16 feet (5 meters) to 171 feet (52 meters) above mean sea level across the landscape.

1.5 Regulatory Considerations

ECORP biologists conducted the biological reconnaissance survey to identify potential constraints to development and to ensure compliance with federal, state, and county regulations regarding listed, protected, and sensitive species. Table 1-1 summarizes these regulations.

Table 1-1. Summary Table of Federal, State, and Local Regulations		
Regulation	Resource	Regulating Agency
Federal Regulations		
Federal Endangered Species Act	Listed <i>Endangered</i> or <i>Threatened</i> plant and animal species	USFWS
Migratory Bird Treaty Act	Migratory birds, or their parts, nests, or eggs	USFWS
State Regulations		
California ESA	Listed <i>Endangered</i> , <i>Threatened</i> , or <i>Candidate</i> native species and their habitats	CDFW
Fully Protected Species	37 California ESA threatened or endangered species that are rare or face possible extinction	CDFW
Native Plant Protection Act	64 species, subspecies, and varieties of endangered or rare native plants	CDFW
California Fish and Game Code	Fish, wildlife, and native plants	CDFW
California Coastal Act	Sensitive coastal and marine habitats and biodiversity	CCC
CEQA Significance Criteria	Special status species, riparian habitat or sensitive natural communities, federal wetlands, and wildlife movement and nursery sites	City of Encinitas
Local Regulations		
North County MHCP	Sensitive, rare, threatened, and endangered plant and animal species; preserve areas, and pre-approved mitigation areas	SANDAG
Draft Encinitas Subarea Plan	Sensitive, rare, threatened, and endangered plant and animal species; preserve areas, and pre-approved mitigation areas	City of Encinitas

The Proposed Project is located within the La Costa *softline* Focused Planning Area (FPA), a planning area delineated by the City of Encinitas as part of their Draft Subarea Plan. The Draft Subarea Plan is based on policies outlined in the North County MHCP. The FPAs consist of a combination of *hardline* preserves (i.e., lands that will be conserved and managed for biological resources) and *softline* planning areas (i.e., within which preserve areas will ultimately be delineated based on further data and planning) (SANDAG 2003). The City of Encinitas specifies: "For softlined areas, which do not have development approvals, development and conservation standards and criteria will be applied to achieve the projected conservation" (City of Encinitas 2001).

The Proposed Project is located within the Coastal Zone therefore the City of Encinitas is responsible for the Project's adherence to the Coastal Act. This is implemented through the Local Coastal Program (LCP)

via acquisition of a Coastal Development Permit. The Coastal Act is a guiding document for development or protection of coastal land within California.

2.0 METHODS

2.1 Literature and Background Review

ECORP biologists performed a literature review prior to conducting the biological reconnaissance survey using the CDFW California Natural Diversity Data Base (CNDDDB; CDFW 2022a) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI; CNPS 2022) to determine the special-status plant and wildlife species documented in the vicinity of the Proposed Project. ECORP searched CNDDDB and CNPSEI records within the Proposed Project Site boundaries as depicted on the USGS 7.5-minute "Encinitas, California" topographic quadrangle. The CNDDDB and CNPSEI contain records of reported occurrences of federal- or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), or other special-status species or habitat that may occur within or in the vicinity of the Proposed Project. Additional information was gathered from the following sources and includes, but is not limited to:

- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* (NRCS 2022);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2022b);
- Special Animals List (CDFW 2022c);
- CDFW's Vegetation Classification and Mapping Program (VegCAMP; CDFW 2022d)
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009);
- USFWS Critical Habitat Portal and Information for Planning and Consultation (IPaC) Trust Resource List (USFWS 2022a);
- USFWS National Wetland Inventory (NWI; USFWS 2022b);
- North County MHCP (San Diego Association of Governments [SANDAG] 2003);
- Draft Encinitas Subarea Plan (City of Encinitas 2001) and;
- Various online websites (e.g., CalFlora 2022).

ECORP generated a list of special-status plant and wildlife species that have potential to occur within the Proposed Project using this information and field observations. Note that not all North County MHCP-covered species are addressed by the literature review. Some species were not included due to their habitats being absent from the Project site. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; or
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review, or for which suitable habitat occurs on the Proposed Project, were assessed for their potential to occur within the site.

Potential for occurrence of special-status species were determined based on the following guidelines:

- **Present:** Species was observed within the Project site during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Project site and a known occurrence has recently been recorded (within the last 20 years) within 1 mile of the Project site or habitat highly associated with the species occurs and a recent documented observation occurs within 5 miles of the site.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Project site and a documented observation occurs within the database search, but not within one mile of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project site and habitat highly associated with the species is present; or a recently documented observation occurs within 1 mile of the area and marginal or limited amounts of habitat occurs in the Project site.
- **Low:** Limited or marginal habitat for the species occurs within the Project site and a recently documented observation occurs within the database search, but not within 1 mile of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project site; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.
- **Presumed Absent:** Species was not observed during a site visit or surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist within the Project site; or the known geographic range of the species does not include the Project site.

Note that location information on some special-status species in the CNDDB may be of questionable accuracy or may be unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

A desktop review of the NRCS' Web Soil Survey (NRCS 2022), USFWS' NWI (USFWS 2022b) and the corresponding USGS topographic maps was also conducted to determine the presence of any blue line streams or drainages that might potentially fall under the jurisdiction of either federal or state agencies.

The background review also included previous biological studies that were conducted for the site:

- *Preliminary Biological Resources Assessment – the Cannon Property at Piraeus Street, Encinitas* (Scheidt 2017); and
- *Results of a Biology Field Study of the Cannon-Covelop Project, Encinitas* (Scheidt 2019).

2.2 Field Surveys

2.2.1 Reconnaissance-Level Biological Survey

Following the literature review, ECORP biologists conducted a biological reconnaissance survey of the entire property and adjacent areas to characterize the existing biological conditions. The biologists walked meandering transects throughout the property assessing existing vegetation communities and habitat types. The property was surveyed to provide for 100 percent visual coverage. The biologists scanned for biological resources using binoculars where access was restricted within the property. They evaluated the potential for special-status plant and animal species to occur, as well as identified other potential biological resource constraints (e.g., jurisdictional waters or wetlands) within and adjacent to the Project Site. All plant and animal species observed or detected during the survey were recorded on survey datasheets. Focused protocol-level surveys were not conducted as a part of this visit. Vegetation mapping was conducting using aerial imagery and ground-truthed during field surveys. The habitat and vegetation community mapping follows the classifications described in *A Manual of California Vegetation* (Sawyer et al. 2009) and were updated from previous survey efforts that used the *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008) and Holland code classification (Holland 1986). The ArcGIS Collector™ application was utilized to map the vegetation communities and land covers and record any special-status biological resources directly in the field. Plant and wildlife species observed during the survey were recorded and representative photographs of the property were taken.

ECORP biologists recorded plant and wildlife species, including any special-status species observed during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR, 2017), *Check-list of North American Birds* (Chesser et al. 2021), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

ECORP biologists recorded the species, location, habitat, and GPS coordinates of all special-status species observed.

2.2.2 Rare Plant Focused Surveys

Focused surveys for rare plants and vegetation mapping were conducted from spring through summer of 2022. Methodology for the rare plant focused survey effort is described in the associated report included as Attachment A.

2.2.3 Coastal California Gnatcatcher Focused Surveys

Focused breeding season surveys for the coastal California gnatcatcher were conducted in the spring of 2022. Methodology for the coastal California gnatcatcher focused survey efforts is described in the associated report included as Attachment B.

2.2.4 Pacific Pocket Mouse Focused Surveys

Focused surveys for Pacific pocket mouse (*Perognathus longimembris pacificus*) were conducted in the summer of 2022. Methodology for the Pacific pocket mouse focused survey effort is described in the associated report included as Attachment C.

3.0 RESULTS

The following sections summarize the results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

3.1 Literature Review

3.1.1 Special-Status Plants and Wildlife

ECORP biologists conducted the CNDDDB and CNPSEI searches in February 2022. The database searches identified 56 special-status plant species and 32 special-status wildlife species that could occur on or near the Proposed Project. The biologists generated a list from the results of the literature review and evaluated the Proposed Project for suitable habitat that could support any of the special-status plant or wildlife species on the list.

3.1.2 U.S. Fish and Wildlife Service-Designated Critical Habitat

The entirety of the Proposed Project is within USFWS-designated critical habitat for the federally-listed coastal California gnatcatcher (USFWS 2007) (Figure 3-1).

3.1.3 Jurisdictional Aquatic Resources Assessment

A review of the NWI determined that there are no mapped wetlands and/or waterways within the Proposed Project Area (USFWS 2022b) or within 100 feet of the Proposed Project. One detention basin mapped as freshwater pond, freshwater emergent wetland, and riverine habitat occurs west of Piraeus Street northwest of the Preserve Area (see Figure 3-2). Estuary and marine wetlands are located north of the Proposed Project, north of La Costa Avenue within the Batiquitos Lagoon State Marine Conservation Area. No indicators of jurisdictional aquatic resources (i.e. hydrophytic vegetation, ordinary high water marks, etc.) were observed within the Project Area, therefore a formal delineation was not conducted for the Proposed Project.

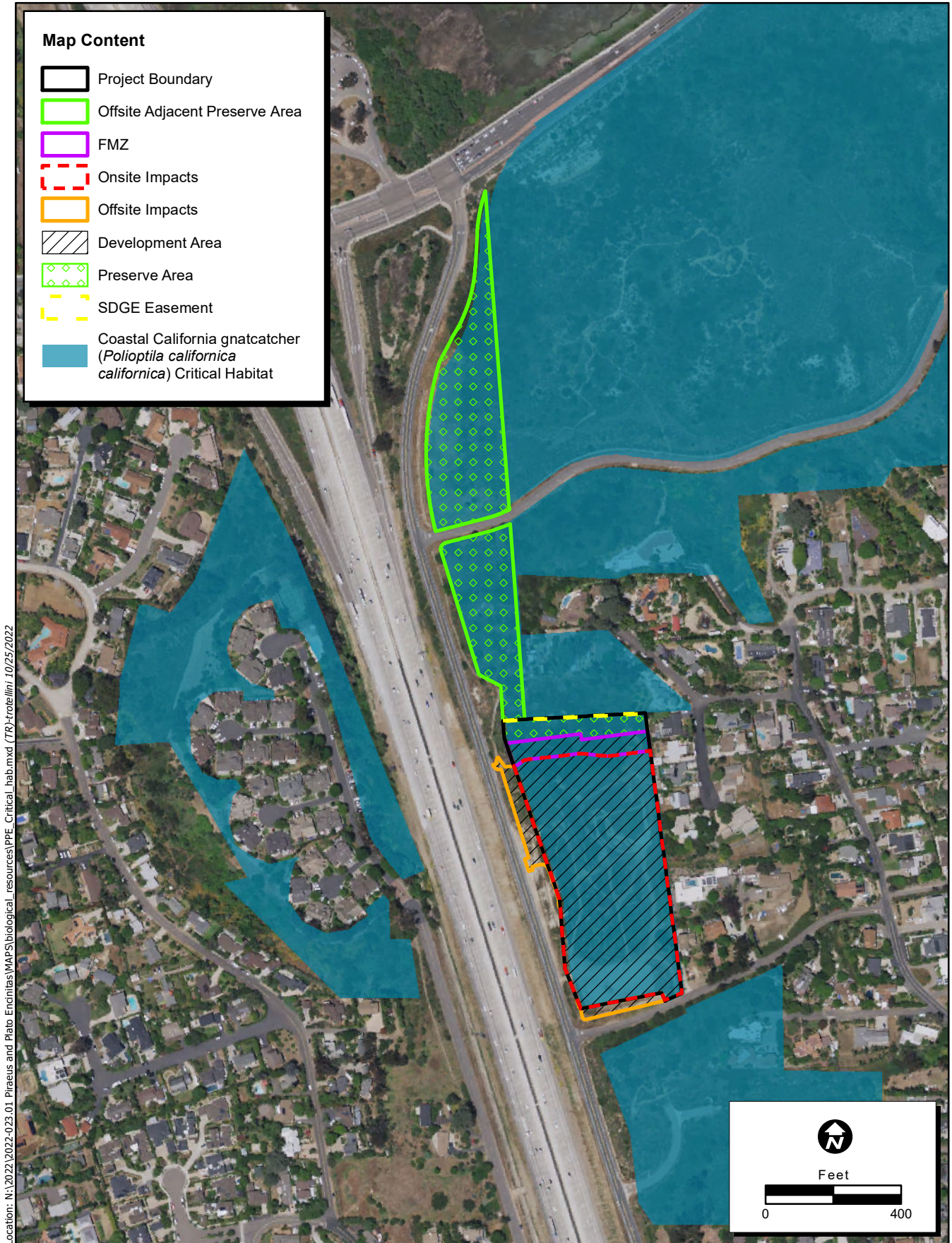


Figure 3-1. USFWS Final Critical Habitat

2022-023.01 Pireaus and Plato Encinitas

Location: N:\2022\2022-023.01 Piraeus and Plato Encinitas\WAPS\hydro\PE_NWI.mxd (7R)-trc\lini 10/25/2022



Figure 3-2. National Wetlands Inventory

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- Development Area
- Preserve Area
- SDGE Easement
- 100-ft Buffer

NWI Features

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine
- Forested/Shrub Riparian



3.1.4 Soils

There are five soil types within the Development Area and three within the Preserve Area:

- Development Area
 - GaF - Gaviota fine sandy loam, 30 to 50 percent slopes
 - MIE - Marina loamy coarse sand, 9 to 30 percent slopes
 - CID2 - Cieneba coarse sandy loam, 5 to 15 percent slopes, eroded
 - GaE - Gaviota fine sandy loam, 9 to 30 percent slopes
 - RuG - Rough broken land
- Preserve Area
 - GaF - Gaviota fine sandy loam, 30 to 50 percent slopes
 - CsD - Corralitos loamy sand, 9 to 15 percent slopes
 - MIE - Marina loamy coarse sand, 9 to 30 percent slopes

These soils are well drained or somewhat excessively drained. None are hydric soils (NRCS 2022) (Figure 3-3).

3.2 Field Surveys

The following sections summarize the results of the biological reconnaissance-level and focused surveys, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors). Table 3-1 summarizes survey dates and surveyors for each of the 2022 field surveys.

Date	Survey Type	Surveyor
3/10	Biological Reconnaissance	Greg Hampton, Caroline Garcia
3/18	California Gnatcatcher 1	Christine Tischer (TE-053379-5), Taylor Dee
3/24	California Gnatcatcher 2	Christine Tischer (TE-053379-5), Taylor Dee
4/7	California Gnatcatcher 3	Christine Tischer (TE-053379-5), Christina Torres
4/14	California Gnatcatcher 4	Shannan Shaffer (TE-67555A-2), Caroline Garcia
4/19, 4/21	Rare Plant 1	Greg Hampton, Caroline Garcia
4/21	California Gnatcatcher 5	Shannan Shaffer (TE-67555A-2), Christina Torres
4/28	California Gnatcatcher 6	Shannan Shaffer (TE-67555A-2)
6/29	Rare Plant 2	Greg Hampton, Reena Lam
8/18	Rare Plant 3	Greg Hampton, Reena Lam
8/23-8/27	Pacific Pocket Mouse (5 nights)	Phil Brylski (TE 148555-2)

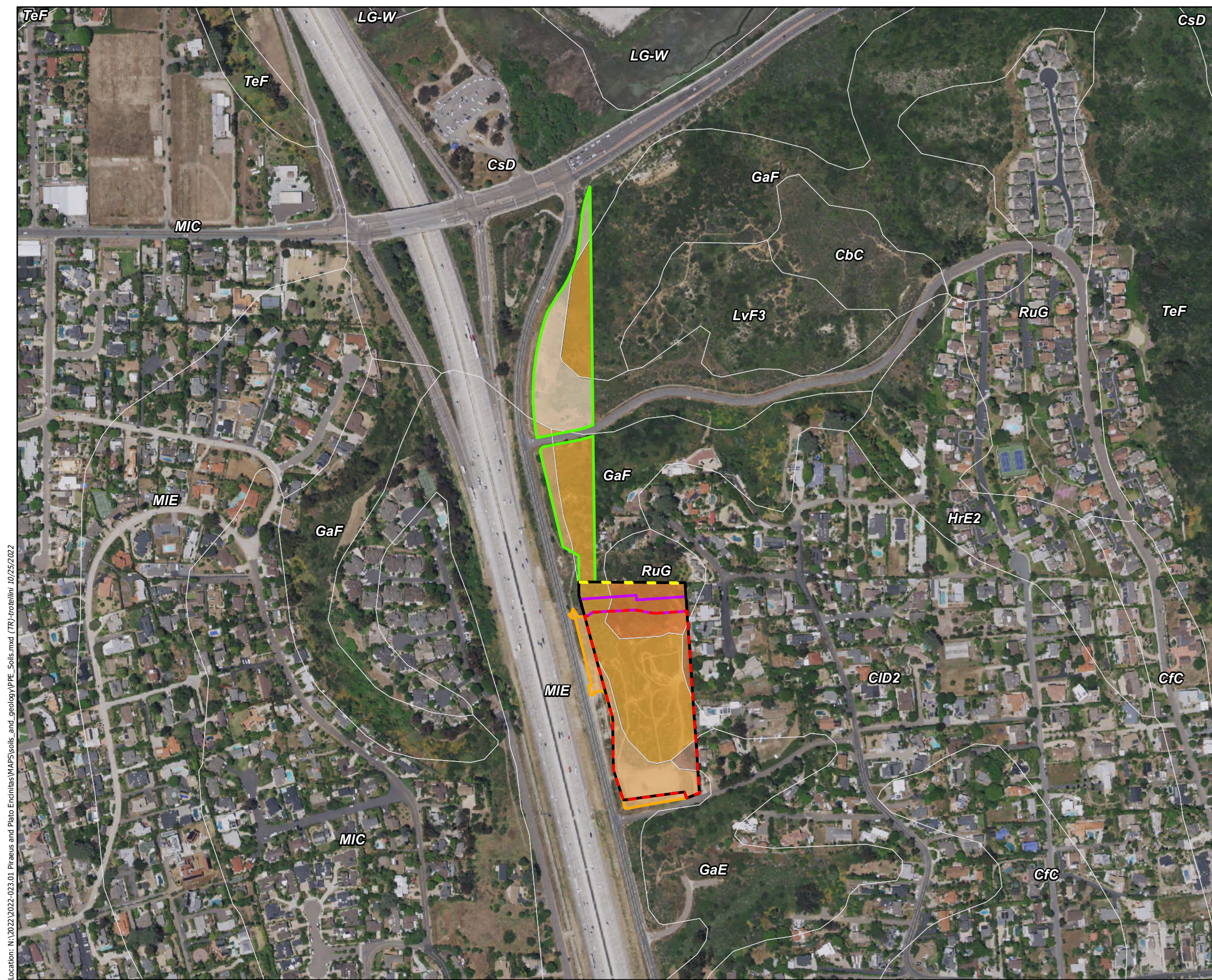


Figure 3-3. Natural Resources Conservation Service Soil Types

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- SDGE Easement

Series Designation - Series Description

- CID2 - Cienega coarse sandy loam, 5 to 15 percent slopes, eroded
- CsD - Corralitos loamy sand, 9 to 15 percent slopes
- GaE - Gaviota fine sandy loam, 9 to 30 percent slopes
- GaF - Gaviota fine sandy loam, 30 to 50 percent slopes
- MIE - Marina loamy coarse sand, 9 to 30 percent slopes
- RuG - Rough broken land

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\WAP5\soils_and_geology\PE_Soils.mxd (TR) - trolini 10/25/2022



3.2.1 Biological Reconnaissance Survey

ECORP biologists Caroline Garcia and Greg Hampton conducted the biological reconnaissance survey on March 10, 2022. Table 3-2 summarizes weather conditions during the biological reconnaissance field survey.

Table 3-2. Weather Conditions During the Survey								
Date	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
3/10/22	0815	1405	63	67	7	0	0-2	2-5

3.2.2 Site Characteristics and Land Use

The Proposed Project consists of undeveloped land. A majority of the Development Area appears to have been previously disturbed with some native vegetation communities present. The Preserve Area consists of primarily unaltered open space. Disturbances within the Development Area include scattered trash, dirt roads, and off-road vehicle tracks.

The Development Area is bounded to the north by open space; to the south and the east by residential developments; and to the west by I-5 and more residential developments. Representative site photographs are included in Attachment D.

3.2.3 Vegetation Communities/Land Covers

Vegetation community type classifications and descriptions followed the Oberbauer designations (Oberbauer) outlined in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). However, a classification crosswalk was used from Appendix C of Vegetation Classification Manual for Western San Diego County (Sproul et al. 2011) to convert Oberbauer classifications to A Manual of California Vegetation (MCV; Sawyer et al. 2009) so that sensitive vegetation communities based on the California Sensitive Natural Communities list provided as part of CDFW's Vegetation Classification and Mapping Program (VegCAMP; CDFW 2022d) could also be identified. The vegetation crosswalk to convert these classifications and their impact mitigation ratio requirements are provided in Table 3-3. Acreages of each vegetation community present within the property are presented in Table 3-4. Vegetation communities within the property limits are displayed on Figure 3-4.

Table 3-3. Vegetation Crosswalk of Communities, Land Cover Types, and Impact Mitigation Ratios within Survey Area

Oberbauer Vegetation Communities and Land Covers	MCV Vegetation Communities and Land Covers	Impact Mitigation Ratio Inside FPA (Preserved: Disturbed)
Diegan Coastal Sage Scrub (32500)	California Sagebrush-California Buckwheat Scrub (<i>Artemisia californica</i> - <i>Eriogonum fasciculatum</i> Shrubland Alliance)	2:1
Diegan Coastal Sage Scrub (32500)	Brittle Bush Scrub (<i>Encelia farinosa</i> Shrubland Alliance)	2:1
Diegan Coastal Sage Scrub (32500)	Lemonade Berry Scrub (<i>Rhus integrifolia</i> Shrubland Alliance) ¹	2:1
Southern Mixed Chaparral (37120)	Chamise-Mission Manzanita Chaparral (<i>Adenostoma fasciculatum</i> - <i>Xylococcus bicolor</i> Shrubland Alliance) ¹	1:1
Coastal Scrub (32000)	Deerweed Scrub (<i>Lotus scoparius</i> Shrubland Alliance)	2:1
Nonnative Grassland (42200)	Annual Brome Grassland (<i>Bromus [diandrus, hordeaceus]</i> - <i>Brachypodium distachyon</i> Semi-Natural Herbaceous Stands)	0.5:1
Nonnative Riparian (65000)	Giant Reed Break (<i>Arundo donax</i> Semi-Natural Herbaceous Stands)	No net loss goal [Replacement Ratio between 1:1 to 3:1]
Disturbed	Disturbed	None

¹Sensitive vegetation community

Table 3-4. Vegetation Communities and Land Cover Types within the Survey Area				
Vegetation Communities and Land Covers (Oberbauer/MCV)	Development Area² (Acres)	Preserve Area³ (Acres)		Total (Acres)
		Onsite (Acres)	Offsite Adjacent (Acres)	
Diegan Coastal Sage Scrub/California Sagebrush-California Buckwheat Scrub (<i>Artemisia californica</i> - <i>Eriogonum fasciculatum</i> Shrubland Alliance)	0.93	-	-	0.93
Diegan Coastal Sage Scrub/Brittle Bush Scrub (<i>Encelia farinosa</i> Shrubland Alliance)	-	-	2.43	2.43
Diegan Coastal Sage Scrub/Lemonade Berry Scrub (<i>Rhus integrifolia</i> Shrubland Alliance) ¹	-	-	0.71	0.71
Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral (<i>Adenostoma fasciculatum</i> - <i>Xylococcus bicolor</i> Shrubland Alliance) ¹	1.13	0.56	0.25	1.95
Coastal Scrub/Deerweed Scrub (<i>Lotus scoparius</i> Shrubland Alliance)	1.44	-	-	1.44
Nonnative Grassland/Annual Brome Grassland (<i>Bromus [diandrus, hordeaceus]</i> - <i>Brachypodium distachyon</i> Semi-Natural Herbaceous Stands)	-	-	1.38	1.38
Nonnative Riparian/Giant Reed Break (<i>Arundo donax</i> Semi-Natural Herbaceous Stands)	-	-	0.18	0.18
Disturbed/Disturbed	3.28	<0.01	-	3.28
Total	6.78	0.56	4.95	12.30

¹Sensitive vegetation community

²Development Area = onsite impact areas, offsite impact areas, and fuel modification zone







³Preserve Area = all non-impact areas within property boundary and excluding 0.02-acre SDG&E easement

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\MAPS\Vegetation_and_Landcover\PE_Vegetation.mxd (TR)-trotellini 10/25/2022











Figure 3-4. Vegetation Communities and Land Cover Types

Map Content

-  Project Boundary
-  Offsite Adjacent Preserve Area
-  FMZ
-  Onsite Impacts
-  Offsite Impacts
-  SDGE Easement

Vegetation Communities and Land Cover Types

-  MCV - Annual Brome Grasslands (*Bromus [diandrus, hordeaceus]-Brachypodium distachyon* Semi-Natural Herbaceous Stand) Oberbauer - Non-native Grassland (42200) **1.380 acres**
-  MCV - California Brittle Bush Scrub (*Encelia californica* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **2.430 acres**
-  MCV - California sagebrush -California buckwheat scrub (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **0.930 acres**
-  MCV - Chamise-mission manzanita chaparral (*Adenostoma fasciculatum-Xylococcus bicolor* Shrubland Alliance) Oberbauer - Southern Mixed Chaparral (37120) **1.968 acres**
-  MCV - Deerweed Scrub (*Lotus scoparius* Shrubland Alliance) Oberbauer - Coastal Scrub (32000) **1.441 acres**
-  MCV - Giant Reed Break (*Arundo donax* Semi-Natural Herbaceous Stand) Oberbauer - Non-Native Riparian (65000) **0.176 acres**
-  MCV - Lemonade Berry Scrub (*Rhus integrifolia* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **0.713 acres**
-  Disturbed **3.282 acres**



3.2.3.1 ***Vegetation Community Descriptions***

DEVELOPMENT AREA

The dominant vegetation community present throughout the Development Area is Coastal Scrub and disturbed land cover. Large trees are not present within the Development Area and a patch of Coastal Scrub is located within the center which transitions into Diegan Coastal Sage Scrub along the slopes to the northwest and south. Southern Mixed Chaparral occupies the northern area and transitions into the Preserve Area. The majority of the Preserve Area contains Diegan Coastal Sage Scrub but also contains smaller portions of Nonnative Riparian and Nonnative Grassland communities. The FMZ to the north of the Development Area footprint is comprised of Southern Mixed Chaparral. Impacts occurring to Southern Mixed Chaparral within the FMZ are included in the Development Area impact calculations.

In reference to MCV communities, Chamise-Mission Manzanita Chaparral and Lemonade Berry Scrub were the only vegetation communities categorized as a California Sensitive Natural Community; however, most of the vegetation communities documented within the Survey Area have mitigation ratios outlined by the MHCP and Draft SAP (VegCAMP; CDFW 2022d; City of Encinitas 2001; SANDAG 2003).

Diegan Coastal Sage Scrub (32400)

The three MCV vegetation communities documented within the Project Area are California Sagebrush-California Buckwheat Scrub (*Artemisia californica*-*Eriogonum fasciculatum* Shrubland Alliance), Brittle Bush Scrub (*Encelia farinosa* Shrubland Alliance), and Lemonade Berry Scrub (*Rhus integrifolia* Shrubland Alliance). However, to consider the mitigation ratios of the MHCP and the Draft SAP, all three can be converted to Oberbauer's Diegan Coastal Sage Scrub. Within the Project Area, this community was co-dominated with California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*).

Other species such as deerweed (*Acmispon glaber*), lemonade berry (*Rhus integrifolia*), and coastal prickly pear (*Opuntia littoralis*) were also present. Most shrubs were less than 2 meters tall on southern and western facing slopes. This vegetation community is located in the southern and northwestern portions of the Development Area, and within the middle and northern portions of the offsite adjacent Preserve Area. Diegan Coastal Sage Scrub is included in the Group C: Coastal Sage Scrub habitat group under the MHCP and Draft SAP. Within the FPA, Diegan Coastal Sage Scrub is required to be mitigated at a 2:1 ratio. (City of Encinitas 2001; SANDAG 2003). California Sagebrush-California Buckwheat Scrub, one of the three MCV vegetation communities considered as Diegan Coastal Sage Scrub, is not considered a sensitive natural community by CDFW, with a global rarity rank of G4 and state rarity rank of S4. The second MCV equivalent, Brittle Bush Scrub, is also not considered a sensitive natural community with a global rarity rank of G5 and state rarity rank of S4. Finally, the last MCV equivalent, Lemonade Berry Scrub, is considered a sensitive vegetation community with a global and state rarity rank of G3 and S3, respectively (VegCAMP; CDFW 2022d).

Southern Mixed Chaparral (37120)

Chamise-Mission Manzanita Chaparral (*Adenostoma fasciculatum*-*Xylococcus bicolor* Shrubland Alliance) an MCV classification, can be converted to Oberbauer's Southern Mixed Chaparral. It was found within the Development Area and Preserve Area. It is a chaparral community, which consists of mostly hard-woody shrubs less than 3 meters tall with an intermittent to continuous canopy. Dominant species within this community consisted of chamise (*Adenostoma fasciculatum*) and mission manzanita (*Xylococcus bicolor*) as a subdominant, but also consisted of laurel sumac, toyon (*Heteromeles arbutifolia*), lemonade berry, and black sage (*Salvia mellifera*). This vegetation community is located in the northern portion of the Development Area and southern portions of the Preserve Area. Southern Mixed Chaparral is included in the Group D: Chaparral habitat group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). Within the FPA, Southern Mixed Chaparral must be mitigated at a 1:1 ratio. (City of Encinitas 2001; SANDAG 2003). CDFW considers Chamise-Mission Manzanita Chaparral as a sensitive vegetation community as this community has a global rarity rank of G4 and a state rank of S3 (VegCAMP; CDFW 2022d).

Coastal Scrub (32000)

Deerweed Scrub (*Lotus scoparius* Shrubland Alliance), an MCV classification, can be converted to Oberbauer's Coastal Scrub. This community is associated with moderate to dense scrub and was primarily dominated by deerweed within the Development Area. Other species included California sagebrush, coyote brush (*Baccharis pilularis*), and scattered individuals of California everlasting (*Pseudognaphalium californicum*). Deerweed Scrub/Coastal Scrub is included in the Group C: Coastal Scrub habitat group under the Draft SAP and MHCP. Within the FPA, Coastal Scrub must be mitigated at a 2:1 ratio. (City of Encinitas 2001; SANDAG 2003). CDFW does not consider Deerweed Scrub a sensitive community, it has a global rarity rank of G5 and a state rarity rank of S5 (VegCAMP; CDFW 2022d).

Disturbed

The classification disturbed is a land cover type and not a vegetation classification. Areas mapped as disturbed were heavily altered due to human disturbance and were dominated by open areas, dirt paths, and nonnative weedy and ruderal vegetation. Dominant plant species of the disturbed areas of the Development Area were nonnative herbs including red-stemmed filaree, hottentot fig (*Carpobrotus edulis*), and crystalline ice plant (*Mesembryanthemum crystallinum*). Disturbed land cover type is included in the Group F: Other group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW does not consider disturbed as a vegetation community.

PRESERVE AREA

Additional vegetation communities are present within the Preserve Area. Southern Mixed Chaparral is the only vegetation community found within both the Development Area and Preserve Area and occurs at the boundary line between the two areas. Similarly, a small, disturbed area exists at the eastern boundary line between the two areas. The dominant vegetation communities present throughout the Preserve Area are the Diegan Coastal Sage Scrub community California Brittle Bush Scrub (*Encelia californica* Shrubland Alliance) and Annual Brome Grassland (*Bromus [diandrus, hordeaceus]*-*Brachypodium distachyon* Semi-

Natural Herbaceous Stand). Multiple northern California black walnut (*Juglans hindsii*) trees and a few Mexican fan palms (*Washingtonia robusta*) are present within the Preserve Area. In the northernmost portion of the offsite adjacent Preserve Area is Diegan Coastal Sage Scrub. A patch of nonnative riparian occurs just north of Skyloft Road. Southern Mixed Chaparral occupies the southern-most area.

Nonnative Riparian (65000)

Giant Reed Break (*Arundo donax* Semi-Natural Herbaceous Stands), an MCV classification, can be converted to Oberbauer's Nonnative Riparian community. This community is associated with a continuous canopy and usually associated with riparian areas. Within the Survey Area, this community was dominated by giant reed (*Arundo donax*) but also included castor bean (*Ricinus communis*) and hottentot fig within a small portion of the offsite adjacent Preserve Area north of Sky Loft Road. Nonnative Riparian is included in the Group A: Wetland/Riparian under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW considers Nonnative Riparian a semi-natural stand and a global and state rarity rank is not applicable (VegCAMP; CDFW 2022d). The water source for this vegetation community appears to be from urban runoff and this community will not be impacted by the Proposed Project.

Nonnative Grassland (42200)

Annual Brome Grassland (*Bromus [diandrus, hordeaceus]-Brachypodium distachyon* Semi-Natural Herbaceous Stands), an MCV classification, can be converted to Oberbauer's Nonnative Grassland. This community is only present within the offsite adjacent Preserve Area north of Sky Loft Road and was primarily dominated by ripgut brome (*Bromus diandrus*). Other species included black mustard (*Brassica nigra*), foxtail brome (*Bromus madritensis*), and red-stemmed filaree (*Erodium cicutarium*). Nonnative Grassland is included in the Group E: Annual Grassland habitat group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW considers Nonnative Grassland a semi-natural stand and a global and state rarity rank is not applicable (VegCAMP; CDFW 2022d).

3.2.4 Plants

Plant species observed within the Survey Area were generally characteristic of coastal sage scrub, chaparral, and grassland communities. Nonnative plant species observed on the property were dominant within the grassland and disturbed areas, intermittently found within native vegetation communities. A full list of plant species observed on the property is included in Attachment E. Plant species observed during previous surveys of the property are also included in this list by year of observation.

3.2.5 Wildlife

The property provides habitat for species adapted to coastal scrub environments. ECORP biologists observed 18 bird species during the reconnaissance survey and an additional 22 were observed over the course of focused wildlife surveys. The biologists also observed sign or presence of eight mammal species, three reptile species, and nine insect species. Woodrat middens were identified within the Development Area that could potentially belong to the San Diego desert woodrat (*Neotoma lepida intermedia*). San Diego desert woodrat is a special-status species that was confirmed during focused Pacific pocket mouse surveys and discussed in more detail in Section 3.2.6.4. A full list of wildlife species observed on the

property is included in Attachment F. Wildlife species observed during previous surveys of the property are also included in this list by year of observation.

3.2.6 Special-Status Plant and Wildlife Species

3.2.6.1 Special-Status Plants Considered

The literature review and database search identified 56 special-status plant species that have the potential to occur on or near the Proposed Project. For the purposes of this study, the results of the literature review were limited to plant species records occurring within 5 miles of the Proposed Project. Descriptions of the CNPS designations can be found in Table 3-5.

Table 3-5. CNPS Status Designations	
List Designation	Meaning
1A	Plants presumed extirpated in California and either rare or extinct elsewhere
1B	Plants rare, threatened, or endangered in California and elsewhere
2A	Plants presumed extirpated in California, but common elsewhere
2B	Plants rare, threatened, or endangered in California, but more common elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, 3, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3	0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (CDFG 1984). This interpretation is inconsistent with other definitions.

The results of the literature review outlining each special-status plant species, their designations, and potential for occurrence based on site conditions determined during the reconnaissance-level survey can be found in Attachment G. One special-status plant species (California adolphia [*Adolphia californica*]) was observed during the biological reconnaissance-level survey. Thirteen special-status plant species were determined to have a high potential, four species were determined to have a moderate potential to occur and the remaining 38 species were determined to have a low potential to occur or were presumed absent from the Proposed Project based on lack of potential habitat, soils, and/or elevational requirements were not met. 2022 focused special-status plant species surveys commenced during the appropriate blooming

periods based on the plant species that were determined to be present or those with a high or moderate potential to occur.

3.2.6.2 Special-Status Plants Observed

One special-status plant species (California adolphia) was observed during the initial reconnaissance survey. Focused rare plant surveys confirmed number and locations of California adolphia populations and detected three additional special-status plant species: wart-stemmed ceanothus (*Ceanothus verrucosus*), Engelmann oak (*Quercus engelmannii*), and ashy spike-moss (*Selaginella cinerascens*). All rare plant species observed within the Survey Area are designated as rare by the CNPS. Wart-stemmed ceanothus and Engelmann oak are covered by the MHCP and Draft SAP. None of the rare plant species found within the Survey Area are state or federally listed. Special-status plant species present within the Proposed Project are discussed below. Observations of special-status plant species are displayed on Figure 3-5.

Rare Plant Focused Surveys

The below species occurrences are taken from the 2022 Focused Rare Plant Survey Report (Attachment A).

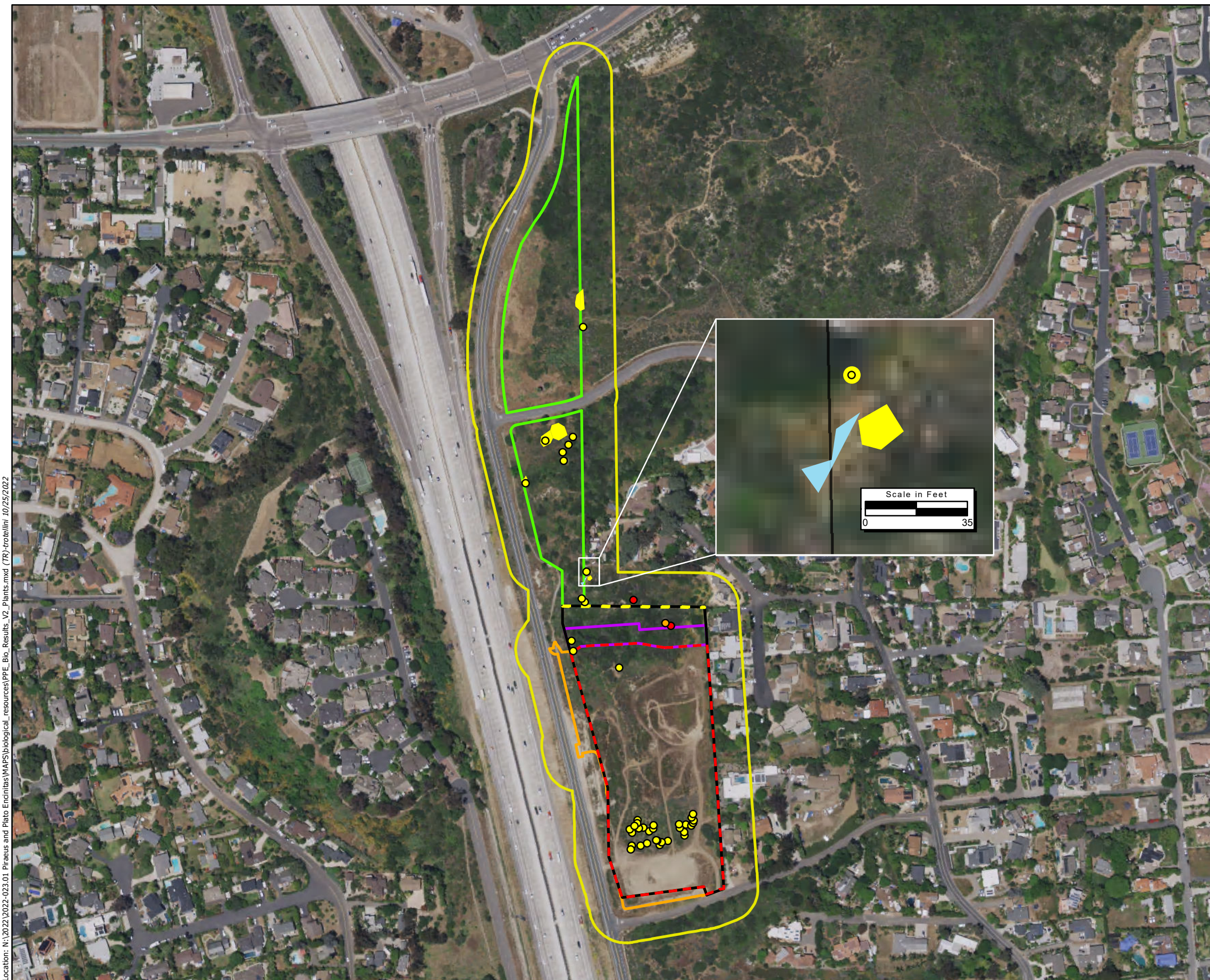
California Adolphia (CRPR 2B.1)

California adolphia is a dicot, a spiny shrub in the Rhamnaceae family that is native to California. Adolphia has a CNPS California Rare Plant Rank (CRPR) rating of 2B.1, 2B meaning that the species' distribution is "rare, threatened, or endangered in California but common elsewhere", and its threat rank of 0.1 defined as "seriously threatened in California". California adolphia is not covered by the Draft SAP or MHCP. This species was observed in the Southern Mixed Chaparral and Diegan Coastal Sage Scrub vegetation communities. Based on extent of occupied habitat, this was the most prevalent rare plant species within the Survey Area. Approximately 154 individuals were documented within the Development Area (inclusive of 9 individuals within the FMZ) and 17 individuals within its 100-ft buffer. The Preserve Area contains 103 individuals of California adolphia, and 53 individuals within its 100-foot buffer.

Wart-Stemmed Ceanothus (CRPR 2B.2, MHCP Covered)

Wart-stemmed ceanothus is a dicot, a shrub in the Rhamnaceae family that is native to California. Wart-stemmed ceanothus has a CRPR rating of 2B.2, with the same distribution description as California adolphia, and 0.2 threat rank described as "moderately threatened in California." Wart-stemmed ceanothus is a proposed covered species for the Draft SAP and is a MHCP covered species, which is subject to species-specific permit conditions outlined in Section 4, Volume II of the Final MHCP (SANDAG 2003). This species was observed in the Southern Mixed Chaparral vegetation community. One wart-stemmed ceanothus was observed in the onsite Preserve Area and one other individual was documented within the 100-foot buffer of the Project Area.

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\WAPS\biological_resources\PE_Bio_Results_V2_Plants.mxd (Tb)-rotellini 10/25/2022



**Figure 3-5. Biological Survey Results
Plants**

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- SDGE Easement
- 100-ft Buffer

Rare Plant Observations

- California adolphia (*Adolphia californica*)
- Engelmann oak (*Quercus engelmannii*)
- Wart-stemmed ceanothus (*Ceanothus verrucosus*)

Rare plant Occupied Habitat

- Ashy-spike moss (*Selaginella cinerascens*)
- California adolphia (*Adolphia californica*)
- Engelmann oak (*Quercus engelmannii*)
- wart-stemmed ceanothus (*Ceanothus verrucosus*)



Engelmann Oak (CRPR 4.2, MHCP Covered)

Engelmann oak is a dicot, a deciduous tree in the Fagaceae family that is native to California. Engelmann oak has a CRPR rating of 4.2, 4.0 meaning that the species distribution is limited and is referred to as a "watch list," and the same threat rank of wart-stemmed ceanothus. Engelmann oak is a proposed covered species for the Draft SAP and is a MHCP covered species, which is subject to species-specific permit conditions outlined in Section 4, Volume II of the Final MHCP (SANDAG 2003). A single Engelmann oak was documented in the onsite Preserve Area within Southern Mixed Chapparral.

Ashy Spike-Moss (CRPR 4.1)

Ashy spike-moss is a lycopod, a perennial rhizomatous herb in the Selaginellaceae family that is native to California. Ashy spike-moss has a CRPR rating of 4.1, with the same distribution description as Engelmann oak, and its threat rank of 0.1 defined as "seriously threatened in California." Ashy spike-moss is not covered by the Draft SAP or MHCP. Approximately 500 individuals of ashy spike-moss were documented within the offsite adjacent Preserve Area and 250 individuals were documented within the 100-foot buffer of the Project Area, in Southern Mixed Chapparral.

3.2.6.3 *Special-Status Wildlife*

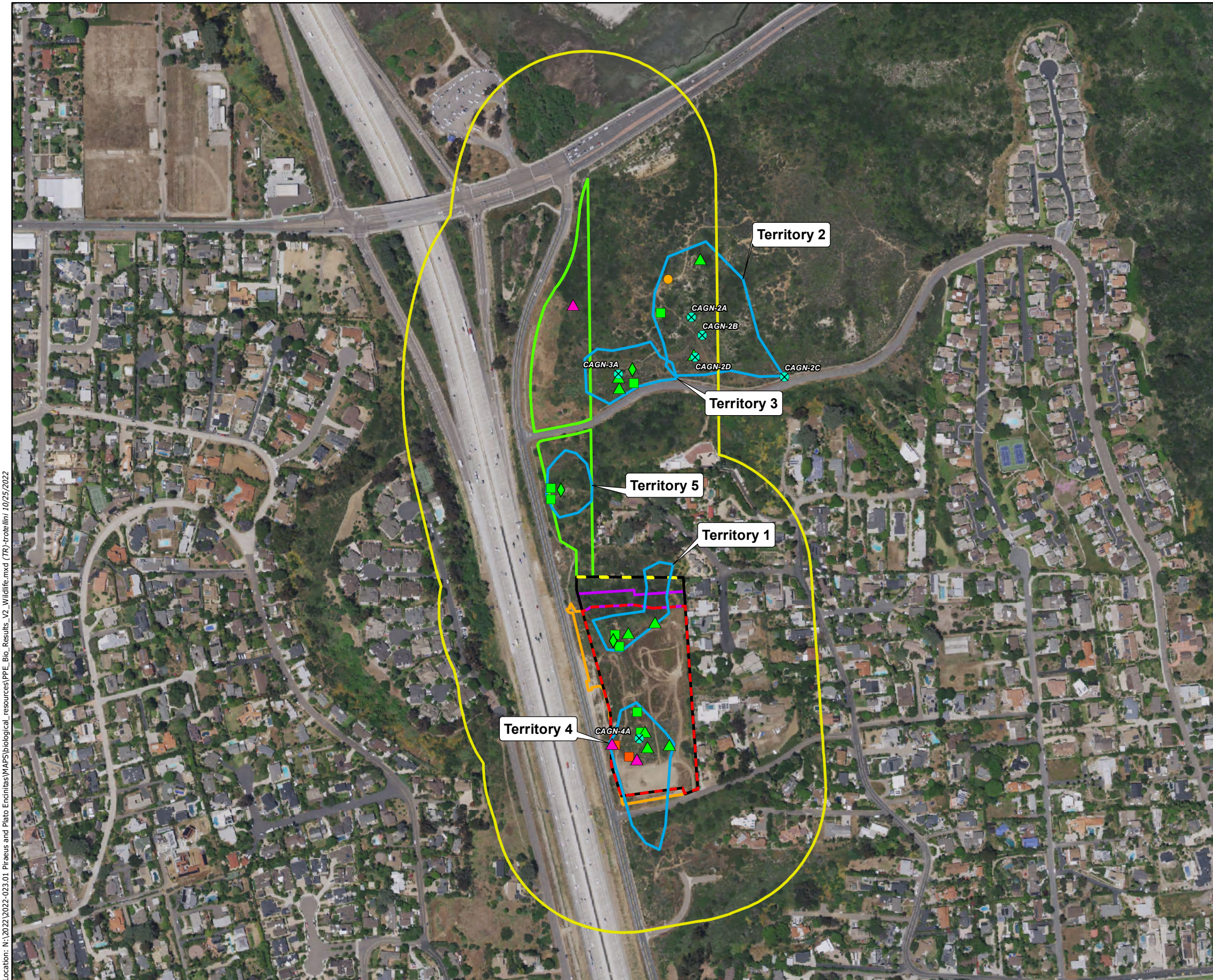
Results of the literature search and the reconnaissance-level survey identified 32 special-status wildlife species as having potential to occur on or in the vicinity of the Proposed Project. For the purposes of this study, the results of the literature review were limited to wildlife species records occurring within 5 miles of the Proposed Project. The results of the literature review outlining each special-status wildlife species, their designations, and their potential for occurrence can be found in Attachment H. Six special-status wildlife species were determined present within the Survey Area based on detections during the biological surveys. One special-status wildlife species was determined to have a high potential to occur, five species were determined to have a moderate potential to occur, and the remaining 20 species were determined to have a low potential to occur or were presumed absent. The special-status wildlife species observed or found to have a high or moderate potential to occur within the Survey Area are listed below. Observations of special-status wildlife species are displayed on Figure 3-6.

3.2.6.4 *Special-Status Wildlife Species Observed*

Six special-status wildlife species were observed within the Project Area, the Preserve Area, or immediately adjacent to the Survey Area during the biological reconnaissance survey and/or subsequent focused surveys. These species are discussed in detail below.

Monarch Butterfly

Monarch butterfly (*Danaus plexippus*), the California overwintering population, is a candidate species for listing under the federal ESA. This species inhabits a variety of habitats and has a reliance on milkweeds (*Asclepias* spp.) as its obligate larval host plant. No milkweed plants were observed within the Survey Area. The overwintering population is known to have a preference for and dependency on nonnative trees planted in the mild Coastal Zone. This species was observed within the Preserve Area of the Proposed



**Figure 3-6. Biological Survey Results
Wildlife**

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- SDGE Easement
- 500-ft Buffer
- Woodrat (*Neotoma* sp.) Middens
- Orange-throated Whiptail

CAGN Incidental Detection

- Coastal California Gnatcatcher (*Polioptila californica californica*)

CAGN Focused Survey Detection

- CAGN Territory
- CAGN Nest
- Male
- Pair
- Unknown

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\WAPS\biological_resources\PE_Bio_Results_V2_Wildlife.mxd (7R)-trats\lini_10/25/2022



Project during the reconnaissance survey and within the southern portion of the Development Area during one of the focused surveys. Both detections were likely transients as the Proposed Project does not provide overwintering or breeding habitat.

Orange-throated Whiptail

Orange-throated whiptail (*Aspidoscelis hyperythra*) is a CDFW Watch List (WL) species and an MHCP covered species. This species inhabits semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides and coastal chaparral. Its range extends from the southern edges of Orange and San Bernardino Counties to coastal areas of San Diego County. This species was observed adjacent to the offsite adjacent Preserve Area during the 2022 focused coastal California gnatcatcher surveys.

Coastal California Gnatcatcher

The coastal California gnatcatcher is a federally listed (threatened) species, a CDFW SSC, and is a covered species under the North County MHCP. Final designated critical habitat comprises the entirety of the property (USFWS 2007). Several recent occurrences in the CNDDDB have been recorded within five miles of the site; the most recent occurrence is approximately 0.8 mile southeast of the site in 2005.

Additionally, this species was observed during previous studies of the site (Scheidt 2017, 2019). The Diegan Coastal Sage Scrub and edges of the Southern Mixed Chaparral communities provide highly suitable habitat for this species while the Deerweed/Coastal Scrub provides moderate to low quality habitat depending on its proximity to the aforementioned communities. A pair of coastal California gnatcatchers was observed within the Diegan Coastal Sage Scrub and adjacent Coastal Scrub communities in the southern half of the Development Area during the reconnaissance survey. A single male was also observed in the Diegan Coastal Sage Scrub of the Preserve Area north of Sky Loft Road during the reconnaissance survey and one additional individual was incidentally detected in the Diegan Coastal Sage Scrub during the initial special-status plant survey on April 21, 2022. A total of four pairs and one territorial individual were confirmed during 2022 focused gnatcatcher breeding season surveys; two pairs within the Development Area, two pairs mostly east of the offsite adjacent Preserve Area north of Sky Loft Road, and one territorial individual within the offsite adjacent Preserve Area south of Sky Loft Road.

Cooper's Hawk

Cooper's hawk (*Accipiter cooperii*) is a CDFW WL species and is a covered species under the North County MHCP. It inhabits a variety of habitats from wooded areas of deep forests to leafy subdivisions. One individual was observed flying over the Development Area during the reconnaissance survey and during three of six focused gnatcatcher surveys. Nesting habitat associated with this species occurs within the 500-foot buffer of the property but is absent within the Development Area. Foraging habitat is present throughout the property and buffer. No active nests for this species were observed within the area.

Northwestern San Diego pocket mouse

Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is a CDFW SSC and is a covered species under the North County MHCP. This species inhabits a variety of habitats including including chaparral,

annual grassland, and coastal sage scrub in association with rocks or coarse gravel. This species was incidentally captured, identified, and safely released during focused 2022 Pacific pocket mouse trapping surveys.

San Diego Desert Woodrat

San Diego desert woodrat is a CDFW SSC. This species inhabits a variety of habitats including chaparral, coastal sage scrub, Riversidean alluvial fan sage scrub, and desert scrubs. Their range includes southern California and the Great Basin, Mojave and Colorado deserts. Woodrats build large dens known as middens which consist of vegetation and woody materials. A midden was observed within the Development Area during the reconnaissance survey that could be occupied by this species. This species was incidentally captured, identified, and safely released during focused 2022 Pacific pocket mouse trapping surveys.

3.2.6.5 Special-Status Wildlife Species with a High Potential to Occur

The following species has a high potential to occur within the Survey Area because the site provides high-quality habitat for the species, and/or the species has been documented within the last 20 years and within 5 miles of the Proposed Project.

- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), CDFW WL species, MHCP Covered species

3.2.6.6 Special-Status Wildlife Species with a Moderate Potential to Occur

The following five species have a moderate potential to occur within the Survey Area because habitat for the species occurs within the Survey Area and a documented observation occurs within the database search, but not within 1 mile of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area and habitat highly associated with the species is present; or a recently documented observation occurs within 1 mile of the area and marginal or limited amounts of habitat occurs in the Proposed Project.

- Southern California legless lizard (*Anniella stebbinsi*), CDFW SSC
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC
- Coast patch-nosed snake (*Salvadora hexalepis virgulata*), CDFW SSC
- Bell's sage sparrow (*Artemisiospiza belli belli*), CDFW WL species, MHCP Covered species
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), CDFW SSC, MHCP Covered species

3.3 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code, including the special-status bird species present or with potential to occur on the Proposed Project (i.e., coastal California gnatcatcher, Cooper's hawk, southern California rufous-crowned sparrow,

Bell's sage sparrow), was present on the Proposed Project and adjacent areas, in the larger shrubs and nearby anthropogenic structures (e.g., wooden utility poles, nearby buildings). Additionally, suitable habitat for ground nesting species, such as mourning dove (*Zenaida macroura*), is present throughout the site. The scrub and chaparral habitats are suitable for the habitat-associated songbird and other passerine species to nest. Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. While suitable nesting habitat for raptors is limited on the Proposed Project due to the lack of large solitary trees or other perching and nesting structures, nearby buildings and wooden utility poles are present in the areas surrounding the Proposed Project. An active red-tailed hawk (*Buteo jamaicensis*) nest was identified just outside of the 500-foot buffer of the Proposed Project to the south.

3.4 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species between habitat areas. The definition of a corridor varies; however, corridors may include areas such as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

The Proposed Project is within a Biological Core and Linkage Area (BCLA) under the MHCP but not within a defined wildlife corridor. It is within the La Costa *softline* FPA for the City of Encinitas. The FPAs consist of a combination of *hardline* preserves (i.e., lands that will be conserved and managed for biological resources) and *softline* planning areas (i.e., within which preserve areas will ultimately be delineated based on further data and planning) (SANDAG 2003). The City of Encinitas specifies: "For softlined areas, which do not have development approvals, development and conservation standards and criteria will be applied to achieve the projected conservation. Conservation targets in upland areas within these softlined areas will vary based on the mitigation ratio to be applied to each vegetation community type. For example, if a 2:1 (conservation:take) ratio applies to a vegetation community type, conservation of that community is calculated at 67 percent of its total mapped acreage on the property (i.e., 2 out of every 3 acres will be conserved). This approach requires that onsite and offsite mitigation is balanced among all the ratio areas within the City (i.e., mitigation is generally required to be within the Encinitas Subarea. Conservation of wetland communities will be at 100 percent in softlined areas, and narrow endemics will be conserved at 95 percent in these areas" (City of Encinitas 2001).

ECORP assessed the property for its ability to function as a wildlife corridor. The Preserve Area provides

unlimited wildlife movement opportunities due to its connectivity to open space to the northeast and adjacency to Batiquitos Lagoon. However, the Development Area's value as a corridor is lessened by the fact that a majority of the Development Area is sparse, disturbed land cover bordered by residential development. The coastal scrub communities within the center of the Development Area provides a discontinuous connection to the dense chaparral habitat at the north end of the Development Area, which transitions into the Preserve Area; therefore south-north movement is established. The I-5 corridor west of the Proposed Project and residential developments to the east likely block east-west movement through the area. The Preserve Area contains vegetation structure and topography that does provide unique or additional vegetative cover or shelter from adjacent areas, which is a characteristic of wildlife corridor areas.

3.5 Rare Plant Focused Survey

As summarized in Section 3.2.6, focused surveys for rare plants determined presence of four rare plant species within the property (Figure 3-5). See the associated focused survey report included as Attachment A for more detail.

3.6 Coastal California Gnatcatcher Focused Survey

As summarized in Section 3.2.6, focused surveys for coastal California gnatcatcher confirmed presence of this species within the Proposed Project. A total of five coastal California gnatcatcher territories (two pairs within the Development Area, one territorial male within the offsite adjacent Preserve Area south of Sky Loft Road, and two CAGN pairs within the 500-foot survey buffer mostly east of the offsite adjacent Preserve Area north of Sky Loft Road (Figure 3-6). A small portion of Territory 3 overlaps the offsite adjacent Preserve Area. See the associated focused survey report included as Attachment B for more detail.

3.7 Pacific Pocket Mouse Focused Survey

Focused surveys for Pacific pocket mouse were negative for the Proposed Project. See the associated focused survey report included as Attachment C for more detail.

4.0 IMPACT ANALYSIS

This section provides a Project-level biological resource impact analysis and addresses biological resource issues derived from Appendix G of the CEQA Guidelines, as well as biological resource issues specific to the City of Encinitas. Direct impacts include the primary effects of construction that displace habitats and species. These impacts will occur in association with Proposed Project construction due to grading, paving, and other disturbances associated with general construction activities. Indirect impacts occur from a secondary effect of construction activities. Indirect impacts are those which occur due to the proximity of a disturbance or development to a species or its habitat. These impacts occur over the short term, during construction, and over the long term due to proximity of the new Proposed Project features. This type of impact could include habitat isolation or degradation, urban edge effects, nonnative species introduction, runoff, alteration of a wildlife species' normal behaviors and activities, vehicular noise or

increased human or pet intrusion. The magnitude of an indirect effect can be as adverse as that of a direct effect, depending on the circumstances. Mitigation, monitoring and reporting requirements to avoid, eliminate, or reduce potentially significant impacts to special-status biological resources to a less than significant level are discussed below. The following sections present impacts to sensitive biological resources resulting from Proposed Project activities.

4.1 Sensitive Natural Communities

Direct impacts could occur to three Oberbauer/MCV vegetation communities: Diegan Coastal Sage Scrub/California Sagebrush – California Buckwheat Scrub, Coastal Scrub/Deerweed Scrub, and Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral. Of these, Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral is the only sensitive natural community that would be impacted; however, all three communities have specific mitigation ratios according to the MHCP and Draft SAP (VegCAMP; CDFW 2022d; City of Encinitas 2001; SANDAG 2003). Furthermore, the Project could indirectly impact additional acreages of Diegan Coastal Sage Scrub/California Sagebrush – California Buckwheat Scrub and Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral if mitigation measures are not employed. Both communities have specific mitigation ratios according to the MHCP and Draft SAP (City of Encinitas 2001; SANDAG 2003). Unavoidable impacts to sensitive and/or mitigated natural communities would result from the development of the Proposed Project within the Development Area, which includes the townhome property footprint (onsite impacts), offsite improvements required by the City adjacent to the property along Piraeus Street and Plato Place (offsite impacts), and the associated 100-foot FMZ. These impacts are considered significant and mitigation will be required. Implementation of Mitigation Measures **BIO-1, BIO-2, BIO-6, BIO-7, BIO-8, and BIO-9** would reduce these impacts to a **less than significant** level. Table 4-1 provides expected impact acreages with recommended mitigation ratios applied.

Table 4-1. Impact Acreages of Vegetation Communities and Land Covers within the Proposed Project							
Oberbauer Vegetation Communities	MCV Vegetation Communities	Development Area (Impact) (Acres)			Development Area (Impact) Total (Acres)	Required Mitigation Ratio	Total (Acres)
		Site	Offsite Improvements	FMZ			
Diegan Coastal Sage Scrub (32500)	California Sagebrush – California Buckwheat Scrub	0.77	0.16	-	0.93	2:1	1.86
Southern Mixed Chaparral (37120)	Chamise-Mission Manzanita Chaparral ¹	0.65	<0.01	0.48	1.13	1:1	1.13
Coastal Scrub (32000)	Deerweed Scrub	1.38	0.06	-	1.44	2:1	2.88
Disturbed	Disturbed	2.96	0.27	0.05	3.28	-	3.28
Total					6.78	-	9.15

¹Sensitive vegetation community

²Excludes San Diego Gas and Electric (SDG&E) easement

MCV = Manual of California Vegetation

Table 4-1. Impact Acreages of Vegetation Communities and Land Covers within the Proposed Project

Oberbauer Vegetation Communities	MCV Vegetation Communities	Development Area (Impact) (Acres)			Development Area (Impact) Total (Acres)	Required Mitigation Ratio	Total (Acres)
		Site	Offsite Improvements	FMZ			

FMZ = Fuel Modification Zone

4.2 Special-Status Species

4.2.1 Special-Status Plants

Results of the 2022 focused rare plant surveys identified four special-status plant species (California adolphia, wart-stemmed ceanothus, Engelmann oak, and ashy spike-moss) within the property and its 100-foot buffer. Based on the Development Area boundaries, the Project would directly impact 154 California adolphia individuals, nine of which occur within the FMZ. California adolphia has a CRPR rating of 2B.1. In addition, direct Project-related impacts would remove 0.02 acre of occupied California adolphia habitat. Indirect impacts to rare or special-status plant species may occur due to habitat degradation and increased dust if present in the areas adjacent to the Development Area. The Project has potential to indirectly impact 26 individuals of California adolphia, 1 wart-stemmed ceanothus, and 1 Engelmann oak if mitigation measures are not enacted. Both wart-stemmed ceanothus and Engelmann oak are covered by the MHCP and Draft SAP and have a CRPR rating of 2B.2 and 4.2, respectively. Impacts to rare plant species would be **less than significant** with the implementation of Mitigation Measures **BIO-2, BIO-3, BIO-6, BIO-7, BIO-8, and BIO-9**. Recommended mitigation measures are presented in Section 5.0.

4.2.2 Special-Status Wildlife Species

The results of the literature review and reconnaissance-level survey identified six special-status wildlife species present (monarch butterfly, orange-throated whiptail, coastal California gnatcatcher, Cooper's hawk, northwestern San Diego pocket mouse, and San Diego desert woodrat), one species (southern California rufous crowned sparrow) was found to have a high potential to occur, and five species (southern California legless lizard, coastal whiptail, coast patch-nosed snake, Bell's sage sparrow, and San Diego black-tailed jackrabbit) were found to have a moderate potential to occur.

If present, direct impacts to rare or special-status wildlife species may occur as a result of the Proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities within the Development Area. Indirect impacts to rare or special-status wildlife species may occur due to habitat degradation, edge effects, construction noise, and other associated construction activities if present in the areas adjacent to the Development Area. Impacts to special-status wildlife species would be **less than significant** with the implementation of Mitigation Measures **BIO-1, BIO-2, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9**. Recommended mitigation measures are presented in Section 5.0.

4.2.2.1 Coastal California Gnatcatcher

The property provides nesting and foraging habitat for the federally listed threatened coastal California gnatcatcher. This species was observed within both the Development Area and the Preserve Area during the reconnaissance survey. Focused protocol-level surveys determined two pairs occupying the Development Area, one territorial male occupying the offsite adjacent Preserve Area south of Sky Loft Road, and two pairs mostly within the 500-foot buffer east of the offsite adjacent Preserve Area north of Sky Loft Road. Direct impacts resulting from the Proposed Project could occur to the coastal California gnatcatcher in the form of vegetation removal, destruction of active nests, harm to individuals, and the loss of occupied Critical Habitat. Indirect impacts could occur to the species in the form of noise, ground vibrations, habitat degradation, increased human and pet activity and visual disturbances, and dust. The primary reasons for coastal California gnatcatcher population decline are habitat loss, degradation, and fragmentation due to urban development of coastal sage scrub habitats. Properties located in the Coastal Zone shall conserve a minimum of 75 percent of the coastal California gnatcatchers onsite. Conservation of gnatcatchers shall be determined in consultation with the wildlife agencies (CCC 2022).

Impacts to the coastal California gnatcatcher would be significant under CEQA; therefore, ECORP recommends that Mitigation Measures **BIO-1, BIO-2, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9** be implemented to reduce these impacts to a **less than significant** level.

4.2.2.2 Raptors and Migratory Birds

The vegetation within the property and infrastructure adjacent to the site (e.g., utility poles, existing buildings) could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code, and also provides foraging habitat for songbird and raptor species, including the special-status bird species with potential to occur on the Proposed Project. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31 for passerines and January 15 through July 31 for raptors), ground-disturbing construction activities could directly affect MBTA-protected birds and their nests through the removal of habitat within the Proposed Project limits, and indirectly through increased noise, ground vibrations, and increased human activity. Implementation of Mitigation Measure **BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9** would reduce impacts to a **less than significant** level.

4.2.2.3 Pacific Pocket Mouse

The Proposed Project provides only low-quality habitat for the federally listed endangered and state species of special concern Pacific pocket mouse. Focused survey results for this species were negative within the Development Area. Therefore, there will be **no impact** to this species due to implementation of the Proposed Project.

4.3 Wildlife Corridors, Linkages, and Significant Ecological Areas

Overall, the Proposed Project does not function as a wildlife corridor but the Preserve Area does function as a significant ecological area of open space habitat. The Proposed Project was identified to be within a

softline FPA area, which means the area is biologically significant and projects in this area are subject to higher scrutiny in order to adhere to and achieve the goals set forth in the MHCP and Draft Encinitas Subarea Plan. Per the Draft Encinitas Subarea Plan, conservation targets in upland areas within these softlined areas: (1) 2 out of every 3 acres of its total mapped acreage [of mitigated communities] on the property will be conserved; (2) onsite preservation of 75% of the onsite coastal California gnatcatchers; and (3) generally mitigation is required to be within the Encinitas Subarea (City of Encinitas 2001). Development of the Proposed Project would isolate the coastal California designated critical habitat from the small patch of undeveloped habitat south of Plato Place that is surrounded by residential developments to the east, and south, and by I-5 to the west. Implementation of Mitigation Measures **BIO-1, BIO-4, BIO-6, BIO-7, BIO-8, and BIO-9** would reduce impacts to a **less than significant** level.

4.4 Jurisdictional Aquatic Resources

There will be **no impact** to jurisdictional aquatic resources due to implementation of the Proposed Project as the Project occurs more than 100 feet from the closest NWI mapped coastal wetlands.

4.5 Habitat Conservation Plans and Natural Community Conservation Plans

The Proposed Project is located within the MHCP and Draft Encinitas Subarea Plan. The MHCP plan serves as an umbrella document to guide the preparation of subarea plans by each participating city and does not itself receive any permits. To be approved, subarea plans must be consistent with the conservation and policy guidelines of the MHCP. Although the Encinitas Subarea Plan is still in draft form, guidelines should be followed as it is planned to be finalized in the future and projects will need to adhere to commitments made in the MHCP. Implementation of all Mitigation Measures listed below would reduce impacts to a **less than significant level** or mitigate for unavoidable significant impacts.

5.0 DESIGN CONSIDERATIONS AND RECOMMENDED MITIGATION MEASURES

5.1 Design Considerations

ECORP recommends maintaining the planned Proposed Project Development Area and Preserve Area boundaries. The 100-foot FMZ is adequate in maintaining an appropriate preservation of habitat while simultaneously ensuring public safety. Any change to these delineated boundaries would alter acreage impacts to sensitive vegetation and habitats.

The following are recommended design measures for development adjacent to preserve areas directly inserted from the Draft Encinitas Subarea Plan (City of Encinitas 2001):

"Drainage and Toxics. All new and proposed parking lots and developed areas in and adjacent to the preserve shall not drain directly into the preserve. All developed and paved areas and agricultural and recreational use areas shall 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 preserve. This can be accomplished using a variety of methods, including natural detention basins, grass swales, or mechanical trapping

devices. These systems shall be maintained approximately once a year, or as often as needed to ensure proper functioning. Maintenance shall include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds when necessary and appropriate).

Erosion and Sedimentation. All new development adjacent to preserve areas shall be required to adhere to measures outlined in the City's Grading, Erosion, and Sediment Control Ordinance to avoid degradation of lagoons, other wetland habitats, and upland habitats from erosion and sedimentation. These measures include restrictions on the Section 4 Preserve Design and Land Use Considerations Encinitas Subarea Plan 4-14 314555000 Public Review Draft timing and amount of grading and vegetation removal. For example, grading or vegetation removal shall be prohibited during the rainy season (October 1 through April 15) without an approved erosion control plan and program in place. Grading or vegetation removal shall be prohibited adjacent to preserve areas during the rainy season unless determined to be allowable on a site-specific basis. In addition, all necessary erosion control devices must be in place, and appropriate monitoring and maintenance must be implemented during the grading period. Once the subarea plan is adopted, the City will amend the ordinance to restrict grading when covered bird species are using the habitat for breeding (see Section 6.3).

Lighting. Lighting of all developed areas adjacent to the preserve shall be directed away from the preserve. Where necessary, development shall provide adequate shielding, berming, or other methods to protect the preserve and sensitive species from night lighting. Noise. Land uses adjacent to the preserve shall be designed to minimize noise impacts. Berms and walls shall be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the preserve. Any activities that generate noise levels greater than 60 decibels (A-weighted scale) within 500 feet of nesting sensitive bird species (such as California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, California least tern, and snowy plover) shall be conducted outside of the breeding season or include sound attenuation devices.

Barriers. New development adjacent to the preserve may be required to provide barriers (e.g., noninvasive vegetation, rocks/boulders, fences, walls, and signs) along the preserve boundary to direct public access to appropriate entrance locations and reduce domestic animal predation.

Landscaping Restrictions. When landscaping within or adjacent to the preserve, the following guidelines shall be followed. Prohibit the use of nonnative, invasive plant species (i.e., container stock and hydroseed material) in landscaping palettes. Revegetate areas of exotic species removal with native species appropriate to the adjacent preserve area. Table 4-2 (Page 4-15 of Draft SAP) provides a partial list of attractive native landscape plants that are tolerant of some summer irrigation and are compatible with adjacent preserve areas.

See also Table 7-1 in Section 7 (Page 7-6 of Draft SAP) for a list of landscape plants not recommended within 1,000 feet of preserve areas. Control and monitor horticultural regimes (e.g., irrigation, fertilization, pest control, and pruning), which can alter site conditions in natural areas, to prevent shifts in species composition from native to nonnative flora. Irrigation runoff, for example, can alter natural areas that are adapted to xeric (dry) conditions, thereby promoting establishment of nonnative plants and displacement of native species. Irrigation can also carry pesticides into natural areas, adversely affecting both plants and wildlife. Irrigation should generally be directed away from the preserve, as this could foster conditions favorable to Argentine and fire ants. Finally, fertilizer management programs shall be implemented that apply the minimal amount of fertilizer required for all public horticultural areas adjacent to the preserve.

Fire and Brush Management. Fire and brush management guidelines shall be enforced so that both biological and safety goals are met, consistent with the recommendations of the Wildland/Urban Interface Task Force. Brush management to reduce fuel and protect urban uses shall occur where existing development is adjacent to the preserve. New residential development located adjacent to the preserve must be set back to incorporate brush management zones on the development pad and outside the preserve. For existing projects and approved projects, the brush management zones, standards and locations, and clearing techniques will not change from those required under existing regulations. Where consistent with the Wildland/Urban Interface Development Standards, vegetation clearing for fire management shall involve brushing rather than disking. Brushing maintains a more firm ground surface that is less prone to erosion and invasion of exotic plant species. Brushing shall require an approved erosion control program and shall be prohibited when covered species are using the habitat for breeding."

Additionally, ECORP recommends site-appropriate landscaping for the Proposed Project and use of plants listed in "Table 4-2. *Native Landscaping Shrubs Suitable For Use Adjacent To Preserve Areas*" from the Draft Encinitas Subarea Plan.

5.2 Avoidance, Minimization, and Mitigation Measures

The following recommended avoidance, minimization, and mitigation measures are provided based on the impacts analysis presented above and would reduce impacts to sensitive biological resources to a **less than significant** level.

BIO-1: On and Offsite Adjacent Preservation of Sensitive Habitat. The majority of preservation goals and required mitigation ratios for impacted vegetation communities (see Tables 3-3, 4-1, and 6-1) will be met through establishment of the onsite and offsite adjacent Preserve Area. Prior to grading, establishment of the Preserve Area will preserve in place 5.51 acres (47%) of the 11.83-acre (including onsite and offsite acreages) property, including 100% (0.71-acre) of CDFW sensitive Diegan Coastal Sage Scrub/Lemonade Berry Scrub and 72% (0.81-acre) of CDFW sensitive Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral (see Table 3-4). Preservation in perpetuity of the vegetation and habitat within the aforementioned Preserve Area shall occur and be set aside as an open space conservation easement in favor of the City of Encinitas. In addition, prior to any grading, a long-term management plan shall be prepared for the mitigation areas, to the satisfaction of the City, and wildlife agencies. The preserve management plan shall provide an entity and endowment funding to maintain the biological open space in perpetuity.

BIO-2: Biological Monitoring. A qualified biologist (biological monitor) with experience monitoring for and identifying sensitive biological resources known to occur in the area shall be present during all site preparation, vegetation clearing, and ground-disturbing activities related to the Proposed Project regardless of permit association. A biological monitor shall be present to ensure wildlife species are relocated out of harm's way. The biological monitor, with assistance from crews when necessary, shall also deconstruct woodrat middens prior to vegetation clearing within the Development Area. Woodrat middens within the FMZ shall be protected in place to the maximum extent practicable, but may be deconstructed if deemed a fire hazard. Biological monitoring duties include, but are not limited to, conducting worker

education training, verifying compliance with the Project's biological resources protection requirements, and ensuring Project activities stay within designated work areas. The biologist shall be responsible for providing Worker Environmental Awareness Training to all personnel working on the Proposed Project prior to the start of ground-disturbing activities. The training shall include, but not be limited to, discussions of the sensitive biological resources associated with the Proposed Project, Proposed Project-specific measures to avoid or eliminate impacts to these resources, consequences for not complying with Proposed Project permits and agreements, and contact information for the lead biologist. Attendees will sign a sign-in sheet documenting their attendance at the training.

During ground-disturbing activities, including any vegetation removal within the Development Area and FMZ, the biological monitor shall have the right to halt all activities in the area affected if a special-status wildlife species is identified in a work area and is in danger of injury or mortality. If work is halted in the area affected as determined by the biological monitor, work shall proceed only after the hazard(s) to the individual is removed and the animal is no longer at risk, or the individual has been removed from harm's way in accordance with the Project's permits and/or management/translocation plans. The biological monitor shall take representative photographs of the daily activities and maintain a daily log that documents general project activities and compliance with the project's biological resources protection requirements. The biologist shall document non-compliances in the daily log, including any measures that were implemented to rectify the issue.

BIO-3: Rare Plant Salvage and Avoidance. Establishment of the on and offsite Preserve Area (BIO-1) shall result in avoidance and protection of 103 California adolphia in place. Nine California adolphia individuals identified within the FMZ shall be flagged prior to fuel reduction activities and avoided in place. Project related impacts to 145 California adolphia individuals and 0.02-acre of California adolphia occupied habitat are anticipated to be unavoidable, therefore salvage of seed and donation to a City refuge or preserve, donation to a local native plant nursery, or propagation within an off-site mitigation area shall be required to the satisfaction of the City. A qualified biologist shall collect seed from the California adolphia to be impacted during the appropriate time, store under appropriate conditions, and coordinate with the appropriate personnel to facilitate propagation of the seed. California adolphia individuals within the FMZ (9 individuals) shall be flagged for avoidance by a qualified botanist prior to development and thinning of the FMZ and a qualified botanist shall be present during vegetation thinning of the FMZ to ensure avoidance is properly achieved. Run-off from the Proposed Project shall be directed away from the Preserve Area. Dust control measures shall be implemented during construction to minimize impacts to rare plants within the adjacent Preserve Area.

BIO-4: Coastal California Gnatcatcher Protection. Focused surveys determined presence of this species within the Proposed Project Area. Project-related impacts to two pairs (4 individuals) and their territories are unavoidable, therefore the applicant will need to obtain USFWS approval pursuant to Section 10 of the federal Endangered Species Act for the impacts to

the coastal California gnatcatcher prior to the issuance of any grading permits. The onsite preservation of sensitive habitat (BIO-1) would preserve one single male coastal California gnatcatcher territory in place within the offsite adjacent Preserve Area south of Sky Loft Road and one additional breeding pair's territory that overlaps a small portion of the offsite adjacent Preserve Area north of Sky Loft Road. More importantly, the Preserve (on and offsite adjacent) would allow for the safe passage of the two displaced pairs of coastal California gnatcatchers to preserved habitat north of the Development Area and continuous with open space areas to the north, northeast (which includes at least one additional breeding pair of coastal California gnatcatchers within 500 feet of the Preserve Area), and to Batiquitos Lagoon State Marine Conservation Area which functions to preserve important coastal-inland wildlife movement. The Project will require development of a Low-Effect Habitat Conservation Plan under Section 10 of the ESA.

BIO-5: Pre-Construction Survey for Nesting Birds and Special-Status Avian Species. Where feasible, ground-disturbing activities, including vegetation removal, shall be conducted during the non-breeding season (approximately September 1 through January 14) to avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. Several species that were identified as having potential to occur can nest year-round; therefore, regardless of time of year, a pre-construction survey for nesting birds and special-status avian species shall be conducted by a qualified biologist (experienced in the identification of avian species and conducting nesting bird surveys) if activities with the potential to disrupt nesting birds or special-status avian species are scheduled to occur. The survey shall include the Proposed Project and adjacent areas where Proposed Project activities have the potential to cause nest failure. The pre-construction survey shall be conducted no more than three days prior to the start of ground-disturbing activities (including vegetation removal and FMZ thinning) within the bird breeding season. Site preparation and construction activities may begin if no nesting birds or special-status avian species are observed during the survey. If nesting birds (including raptors) or special-status avian species are found to be present, biological monitoring in accordance with BIO-3 in addition to nest avoidance and minimization measures shall be implemented to avoid potential Project-related impacts to the species. Avoidance and minimization measures shall be developed by the qualified biologist and may include seasonal work restrictions, additional nesting bird survey and nest monitoring requirements, and/or establishment of non-disturbance buffers around active nests until the biologist has determined that the nesting cycle is completed. The circumference of non-disturbance buffers established around active nests shall be determined by the qualified biologist (typically 300 feet for songbirds and 500 feet for raptors and listed species). The qualified avian biologist shall consider and have the authority to reduce or increase non-disturbance buffers based on vertical distances, species life history, sensitivity to disturbances, individual behavior and sensitivity to disturbances, nest stage (incubation, feeding nestlings, etc.), location of nest and site conditions, presence of screening vegetation or other features, ambient and ongoing construction activities at the time of nest establishment, and remaining Project activities in the immediate area when

determining non-disturbance buffers. Once nesting is deemed complete by the qualified biologist as determined through periodic nest monitoring, the non-disturbance buffer will be removed by the qualified biologist and Proposed Project work may resume in the area. The Pre-Construction Nesting Bird Survey will be an ongoing requirement for long-term maintenance activities associated with the Project, including annual maintenance of the FMZ.

BIO-6: Construction Fencing. The limits of Project impacts (including construction staging areas and access routes) shall be clearly delineated by the construction contractor under the direct supervision of a qualified biological monitor with bright orange plastic fencing, stakes, flags, or markers that will be installed in a manner that does not impact habitats to be avoided, and such that they are clearly visible to personnel on foot and operating heavy equipment. Silt fence barriers shall be installed as required to prevent the spread of silt from the construction zone into adjacent habitats and aquatic features. Temporary construction fencing and markers shall be maintained in good repair until the completion of Project construction. The applicant shall submit the final plans for Project construction to the City for approval at least 30 days prior to initiating Project impacts. These final plans shall include photographs that show the fenced limits of impact and areas to be impacted or avoided.

The construction team shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced Project footprint. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced Project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering adjacent open space and shall be shown on the construction plans. Equipment fueling shall take place within existing disturbed areas. Contractor equipment shall be checked for leaks prior to operation and repair, as necessary. "No-fueling" zones shall be designated on construction plans.

BIO-7: Offsite Mitigation. Prior to any grading, offsite mitigation will be required for an additional 1.92 acres of impacts to sensitive and/or mitigated habitats not achieved within the on and offsite adjacent Preserve Area established in BIO-1, including 1.60 acres of coastal sage scrub within the Coastal Zone and 0.32 acre of Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral (see Table 6-1 in Section 6.0). This can be achieved through purchasing of mitigation credits or acquiring additional land within the Coastal Zone. Because available land and established mitigation banks within the Coastal Zone are not available, and because the City of Encinitas SAP is still in draft form, purchasing of mitigation credits within a North County MHPA mitigation bank (<https://www.sandiegocounty.gov/content/sdc/pds/mitbnks.html>) or at another City-approved preserve area in the process of being established will need to be negotiated to the satisfaction of the City, CDFW, and USFWS.

BIO-8: Limited Building Zone Easement. A Limited Building Zone (LBZ) Easement shall be granted to prohibit the building of structures that would require vegetation clearing within the

protected biological open space for fuel management purposes. The easement must extend at least 100 feet from the biological open space boundary.

Grant to the City of Encinitas a LBZ Easement to the satisfaction of the City. The only exceptions to this prohibition are structures that do not require fuel modification/vegetation management. The LBZ easement will also include language that rare plant avoidance within the LBZ shall be required by requiring a biologist onsite prior to any fuel management activities.

Prior to recordation of the final map, the applicant shall show the easement on the Final Map with the appropriate granting language on the title sheet concurrent with Final Map review.

BIO-9 Open Space Signage and Fencing. In order to protect the proposed open space easement from entry, or disturbance, permanent fencing and signage shall be installed. DESCRIPTION OF REQUIREMENT: Signage shall be placed on posts in prominent areas and no more than 100 feet apart along the southern boundary of the biological open space boundary (i.e. onsite Preserve Area) at the interface with the FMZ. In addition, signs shall be posted along the Preserve Boundaries at 300-foot intervals and facing the public right of ways along Piraeus Street and Sky Loft Road.

- a. Evidence shall be site photos and a statement from a California Registered Engineer, or licensed surveyor that the open space signs have been installed.
- b. The sign must be corrosion resistant, a minimum of 6" x 9" in size, on posts not less than three (3) feet in height from the ground surface, and must state the following:

Sensitive Environmental Resources Area Restricted by Easement

Entry without express written permission from the City of Encinitas is prohibited. To report a violation or for more information about easement restrictions and exceptions contact the City of Encinitas, Development Services

Reference: MULTI-005158-2022

DOCUMENTATION: The applicant shall install the signage and fencing as indicated above and provide site photos and a statement from a California Registered Engineer, or licensed surveyor that the open space fencing has been installed at the open space easement boundary. TIMING: Prior to any occupancy, final grading release, or use of the premises in reliance of this permit, the fencing and signage shall be placed. MONITORING: The Development Services Department shall review the photos and statement for compliance with this condition.

6.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Properties containing coastal sage scrub located in the Coastal Zone shall conserve a minimum 67% of the coastal sage scrub and 75% of the coastal California gnatcatchers onsite. The Proposed Project is within a BCLA, *softline* FPA, and Coastal Zone, therefore it is assumed that impact avoidance and

preservation of habitat through establishment of an open space easement on and offsite adjacent (BIO-1) would be credited toward satisfaction of the majority of mitigation obligations. Mitigation ratios are based on guidelines outlined in the MHCP, Draft Encinitas Subarea Plan, and as recommended for Coastal Zone projects. Per the Draft Encinitas Subarea Plan, "Conservation targets in upland areas within these softlined areas will vary based on the mitigation ratio to be applied to each vegetation community type. For example, if a 2:1 (conservation:take) ratio applies to a vegetation community type, conservation of that community is calculated at 67 percent of its total mapped acreage on the property (i.e., 2 out of every 3 acres will be conserved). This approach requires that onsite and offsite mitigation is balanced among all the ratio areas within the City (i.e., mitigation is generally required to be within the Encinitas Subarea" (City of Encinitas 2001). It has been calculated that the onsite preservation of 75% of the onsite coastal California gnatcatchers will be achieved through establishment of the on and offsite adjacent Preserve Area (1+ territories with 3 individuals preserved: 2 territories with 4 individuals impacted). However, conservation of coastal California gnatcatchers shall be determined in consultation with the wildlife agencies. Offsite mitigation (BIO-7) will be required for an additional 1.92 acres of impacts to sensitive and/or mitigated habitats not achieved within the Preserve Area including 1.60 acres of Diegan Coastal Sage Scrub and Coastal Scrub and 0.32 acre of Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral.

6.1 Summary of Existing Habitats/Communities, Impacts, and Mitigation

Table 6-1. Summary Table of Existing Habitats/Communities, Impacts, and Mitigation								
General Habitat Type	Preserve Area ¹ (Acres)		Development Area (Acres)	Total ¹ (Acres)	Mitigation Ratio Required	% Conserved ²	Mitigation Ratio Achieved	Deficit (Acres)
	Onsite	Offsite Adjacent						
CSS ³	3.14		2.37	5.51	2:1	57	No	-1.60
Chaparral	0.56	0.25	1.13	1.95	1:1	42	No	-0.32
Total	3.70	0.25	3.50	7.45		53%		-1.92

¹Preserve Area (on and offsite adjacent) and Total acreage does not include 0.02-acre SDG&E easement.

²California Coastal Commission requires conservation of 67% of coastal sage scrub for properties within Coastal Zone

³CSS = Coastal Sage Scrub and includes Diegan Coastal Sage Scrub and Coastal Scrub

In the table above, the Development Area acreage includes impacts due to development of the site plan itself, offsite improvements, and establishment of an FMZ. The required mitigation ratios will be achieved through preservation of onsite, offsite adjacent, and offsite habitat as recommended by Mitigation Measures **BIO-1** and **BIO-7**.

6.2 MHCP Consistency Statement

In committing to incorporate the aforementioned avoidance, minimization, and mitigation measures above, the Proposed Project would be consistent with the MHCP and Draft Encinitas Subarea Plan.

7.0 ADDITIONAL RECOMMENDATIONS

In addition to implementing the recommended mitigation measures outlined in Section 6.0, ECORP recommends the following best management practices, which are not mitigation measures pursuant to CEQA but recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a pre-determined work area. Stay on previously designated roads or, if not possible, create one-way-in and one-way-out roads during construction.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks should be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored on the site.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from the construction or Project Area.
- Use of rodenticides and herbicides on the Project should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to raptors.

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the Project applicant or the applicant's representative and that I have no financial interest in the Proposed Project.

SIGNED:



DATE: 10/28/22

Caroline Garcia
Associate Biologist
ECORP Consulting, Inc.

Under the direction of:

SIGNED:



DATE: 10/28/22

Christine Tischer
Senior Biologist/Project Manager
ECORP Consulting, Inc.

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Attachment B – Coastal California Gnatcatcher Focused Survey Report

Attachment C – Pacific Pocket Mouse Focused Survey Report

Attachment D – Representative Site Photographs

Attachment E – Plant Species Observed

Attachment F – Wildlife Species Observed

Attachment G – Special-Status Plant Species Potential For Occurrence

Attachment H – Special-Status Wildlife Species Potential For Occurrence

ATTACHMENT A

Rare Plant Focused Survey Report

Results of the 2022 Focused Rare Plant Surveys for the Piraeus Point Project

San Diego County, California

Prepared For:

Lennar Homes of California, LLC
16465 Via Esprillo, Suite 150
San Diego, California 92127

Prepared By:

 **ECORP Consulting, Inc.**
ENVIRONMENTAL CONSULTANTS
3838 Camino del Rio North, Suite 370
San Diego, California 92108

September 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
APN	Assessor's Parcel Number
CDFW	California Department of Fish and Wildlife
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
Development Area	149-home modern townhome community, offsite improvements, and the associated Fuel Modification Zone
Draft SAP	Draft Encinitas Subarea Plan
ESHAs	Environmentally Sensitive Habitat Areas
FMZ	Fuel Modification Zone
FPA	Focused Planning Area
GNSS	Global Navigation Satellite System
GIS	Geographic Information System
MCV	<i>A Manual of California Vegetation</i>
MHCP	Multiple Habitat Conservation Plan
NOAA	National Oceanic and Atmospheric Administration
Oberbauer	Oberbauer designations
Preserve Area	Northern Portion of the Piraeus Property
Proposed Project	Development Area and Preserve Area of the Piraeus Property
SANDAG	San Diego Association of Governments
Survey Area	Project Area and a 100-foot buffer
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VegCAMP	Vegetation Classification and Mapping Program

1.0 INTRODUCTION

Lennar Homes (Client) contracted ECORP Consulting, Inc. to conduct focused botanical surveys for rare plants within the Piraeus property. The development portion of the Piraeus Point Project consists of a 149-home modern townhome community, offsite improvements, and the associated Fuel Modification Zone (FMZ; Development Area). The northern portion of the Piraeus property will be preserved in perpetuity and left untouched, excluding the San Diego Gas & Electric (SDG&E) easement that also occurs on the property (Preserve Area). Together, the Development Area and the onsite Preserve Area are the Proposed Project or Project Area. Focused surveys were conducted to identify target rare plant species within the property and a 100-foot buffer, hereafter referred to the Survey Area. This report summarizes the results of the three surveys conducted at the property during the 2022 blooming season (April, June, and August).

1.1 Project Location

The Proposed Project is located in San Diego County in the City of Encinitas (Figure 1). It is located directly east of U.S. Interstate 5 between Leucadia Boulevard and La Costa Avenue. The Project consists of two parcels of land (Assessor's Parcel Numbers [APN] 254-144-01-00 and 216-110-35-00). The Development Area occurs entirely within the southern parcel (APN 254-144-01-00) and consists of a 149-home modern townhome community, offsite improvements, and the associated Fuel Modification Zone. The northern portion of APN 254-144-01-00 and the entirety of the northern parcel (APN 216-110-35-00) will be preserved in perpetuity and left untouched (Preserve Area). The property is centered at latitude 33.0804247° and longitude -117.2960667° within Sections 4 and 33, Townships 12 and 13 South, Range 4 West of the U.S. Geological Survey (USGS) Encinitas 7.5-minute topographic quadrangle (Figure 2).

2.0 SURVEY METHODOLOGY

2.1 Literature Review

Prior to conducting the rare plant survey, ECORP conducted a review of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2022), the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2022) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (hereafter referred to as CNPS Electronic Inventory; CNPS 2022) to determine whether rare plant species have been previously reported within the Project Area and the surrounding USGS Encinitas 7.5-minute topographic quadrangle (3311713).

In addition, a background review of previously observed plant species on the Project site from previous biological studies included:

- *Preliminary Biological Resources Assessment – the Cannon Property at Piraeus Street, Encinitas* (Scheidt 2017); and
- Results of a Biology Field Study of the Cannon-Covelop Project, Encinitas (Scheidt 2019).

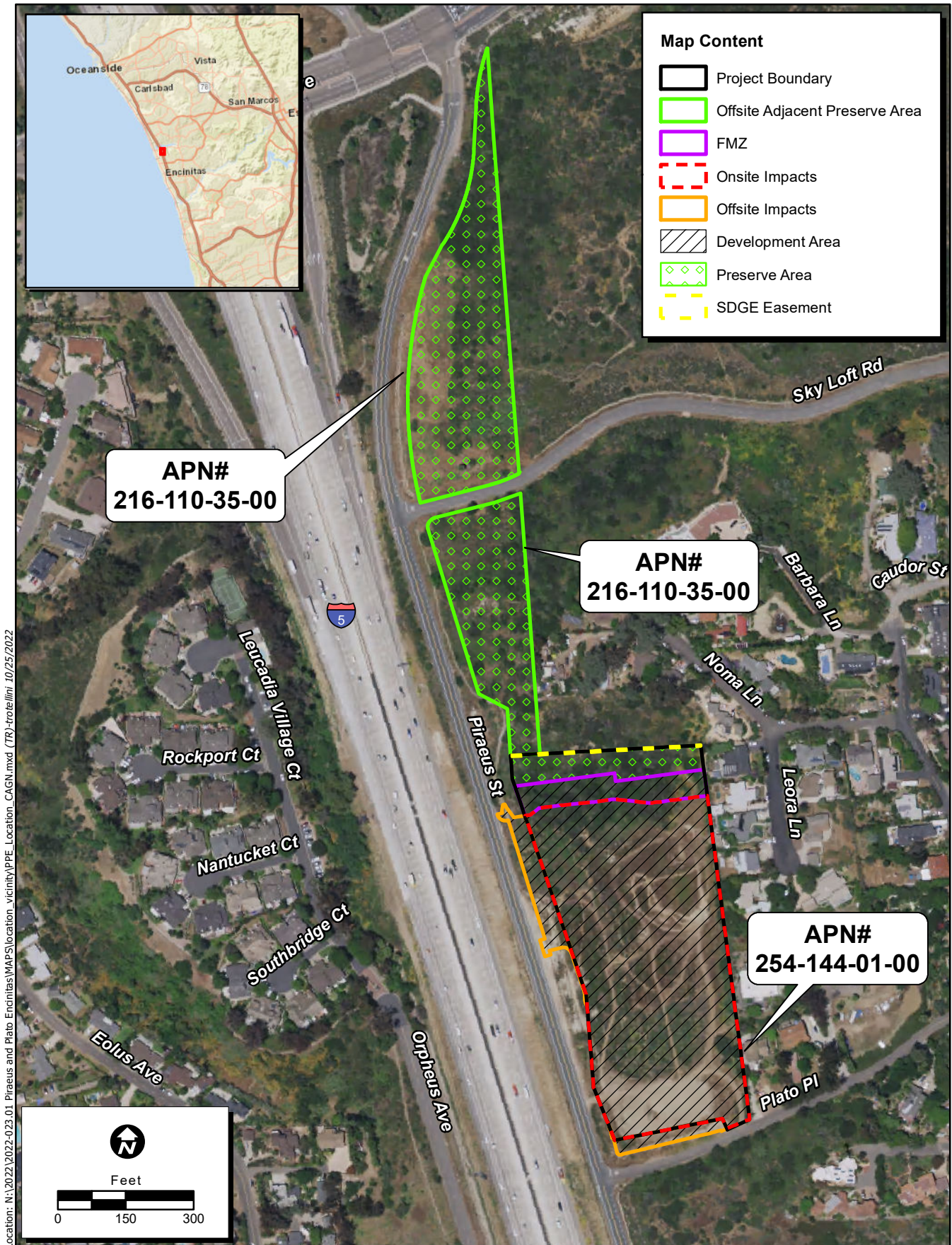
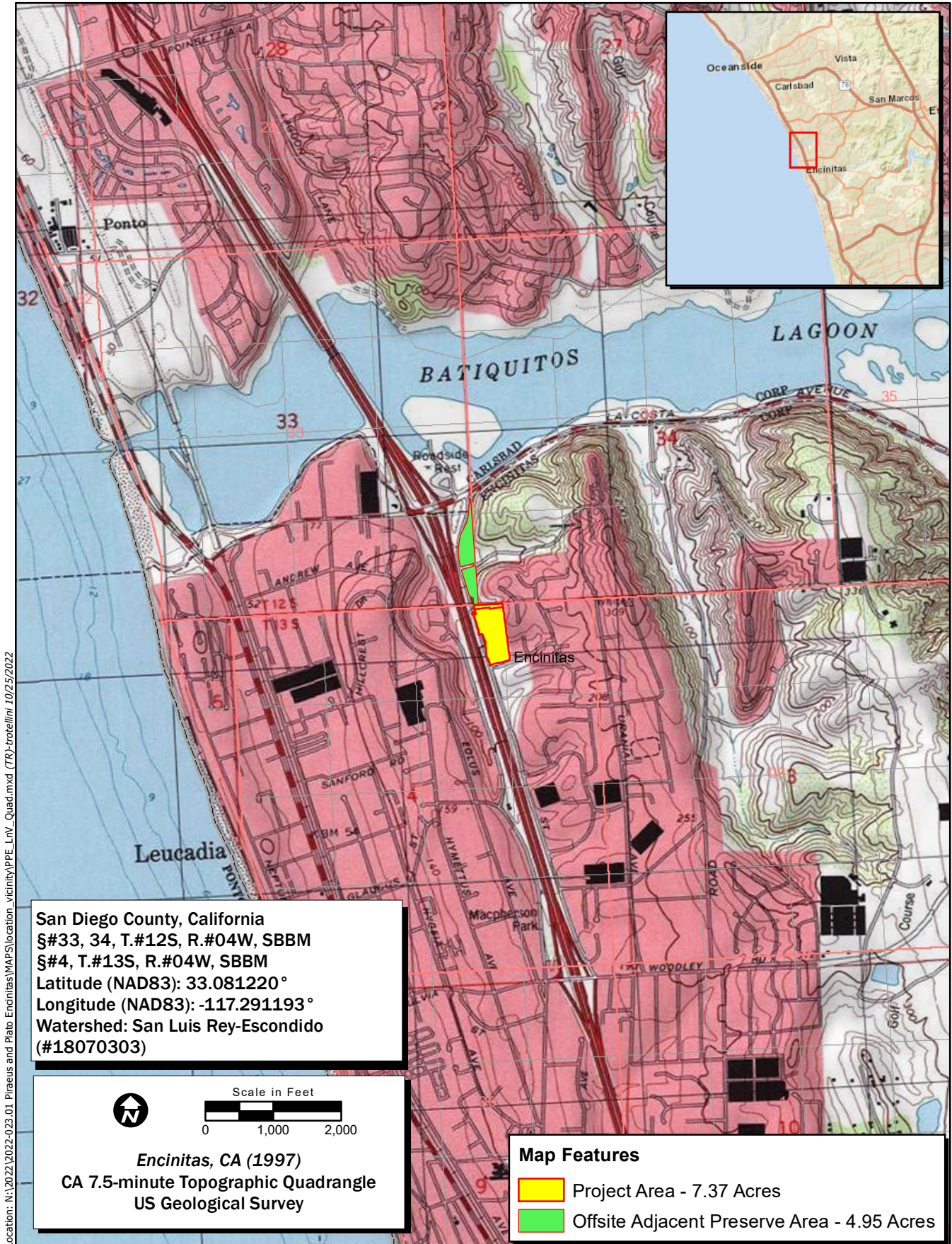


Figure 1. Project Vicinity and Location

2022-023.01 Piraeus Point



Map Date: 10/25/2022
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community, Copyright © 2013 National Geographic Society, i-cubed, Compiled by the Bureau of Land Management (BLM), National Operations Center (NOC), OC-530.



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 ENVIRONMENTAL CONSULTANTS

Figure 2. USGS 7.5-Minute Topographic Quadrangle
 2022-023.01 Piraeus and Plato Encinitas

2.1.1 Regulatory Review

Data regarding the Survey Area was also reviewed to determine consistency with the San Diego North County Multiple Habitat Conservation Plan (MHCP), Draft Encinitas Subarea Plan (Draft SAP), and the policies of the California Coastal Act that are included as the Local Coastal Program Land Use Plan in the Draft SAP.

2.1.2 Reference Population Assessments

Following the literature review, a list of target rare plant species was developed for the surveys. In order to verify the blooming status of plants in the region and target rare plant species for the Survey Area, two locations were visited. The field observations during these reference population site visits assisted with refining the optimal period to conduct the spring and summer survey events.

2.2 Focused Rare Plant Surveys

Rare plant species are those listed under the California or federal Endangered Species Acts, those covered under the MHCP, or those considered rare by CNPS. Three separate focused rare plant surveys were conducted within the Survey Area in 2022 based on the expected blooming periods of target plant species: April 19 and April 21, June 29, and August 18. Surveys were conducted by ECORP biologists Greg Hampton (lead surveyor), Caroline Garcia, and Reena Lam. Table 2 summarizes survey dates and personnel involved during the surveys. Surveys were conducted by biologists with extensive experience with botanical surveys and knowledge regarding plant taxonomy, plant species in the region, and special-status plant species.

Table 1. 2022 Survey Dates and Personnel	
Date	Personnel
4/19 & 4/21	Greg Hampton and Caroline Garcia
6/29	Greg Hampton and Reena Lam
8/18	Greg Hampton and Reena Lam

The purpose of the surveys was to determine the presence or absence and number of individuals of rare plant species within the Survey Area.

Survey methods were devised with consideration of the following resources:

1. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 1996),
2. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018), and
3. *CNPS Botanical Survey Guidelines* (CNPS 2001).

The surveys were scheduled to coincide with the target rare plant species that have blooming periods in April, June, and August, and during a period when those target species were most likely identifiable.

A total of four survey days were conducted in April through August 2022 to provide 100-percent visual coverage of the entire Survey Area at different blooming periods of target rare plant species. Each survey gave priority to vegetation communities within the Survey Area known to support rare plant species that were blooming at that time. Vegetation communities that were not disturbed (i.e., infested by invasive plant species, lots, dirt roads) were also given priority. Areas that were not known to support rare plant species and/or were disturbed were surveyed after prioritized vegetation communities.

Pedestrian-based 10-meter survey transects were walked by two biologists. For heavily disturbed and developed portions of the Survey Area (e.g., bare lots, dirt roads) transects were extended to 20 meters based on higher visibility and the low probability of rare plants occurring in those areas. Global Navigation Satellite System (GNSS) devices, coupled with iPads® running ArcGIS Field Maps software were used during surveys to record the coordinates of any rare plant species. Juniper® Geode™ receivers were used to obtain submeter accuracy. Each GNSS device displayed a position using the Universal Transverse Mercator coordinate system, North American Datum 1983.

Common plant species were identified and recorded in order to maintain a compendium of plant species that occur in the Project Area. In some cases, biologists took plant samples from the site when a dissecting microscope was necessary for identification. Taxonomy of plant species identified within the Project site is based on the following sources:

- *The Jepson Manual* (Hickman 1993)
- *The Jepson Manual, 2nd Edition* (Baldwin et al. 2012)

The GNSS data collected in the field were uploaded from the GNSS device to a server, and differential correction post-processing was performed. The data were then viewed and analyzed for verification, edited, and converted to a Geographic Information System (GIS) format at the time of upload. In addition, field map notes were completed concurrent with GNSS data collection and in some cases field data forms were also completed when appropriate.

Population size and extent were estimated and recorded for every rare plant GNSS feature collected. In addition, all GNSS data features that were within 7 meters of each other were merged into a larger polygon, thereby increasing the acreage by including all potential habitat.

2.3 Meteorological Conditions

The nearest weather station with reviewable weather data and similar physical conditions was reviewed for the historical weather data of the Project Area using data from the National Oceanic and Atmospheric Administration (NOAA, 2022). Obtaining weather data for the Survey Area helps identify drought conditions and limitations to the survey.

2.4 Vegetation Mapping

Vegetation community mapping assists in providing baseline information on the existing vegetation communities within the Survey Area, including the acreage and specific locations of each community. This document and associated deliverables were prepared to assist the responsible local, federal, and state agencies to make appropriate land-use decisions regarding the management of the vegetation communities present in the Survey Area. Vegetation descriptions and impacts within the Survey Area are discussed further in Sections 3.0 and 4.0 of this report.

Vegetation community mapping was completed concurrently with the rare plant surveys, and the classification descriptions of vegetation communities within the Survey Area are included in Section 3.3. Vegetation community type classifications and descriptions followed the Oberbauer designations (Oberbauer) outlined in *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008). However, a classification crosswalk was used from Appendix C of Vegetation Classification Manual for Western San Diego County (Sproul et al. 2011) to convert Oberbauer classifications to *A Manual of California Vegetation* (MCV; Sawyer et al. 2009) so that sensitive vegetation communities based on the California Sensitive Natural Communities list provided as part of CDFW's Vegetation Classification and Mapping Program (VegCAMP; CDFW 2022b) could also be identified.

Vegetation mapping was completed using pedestrian surveys and assessments from key vantage points to characterize and map the vegetation communities and to identify any sensitive habitats within the Survey Area. Vegetation mapping was conducted in consideration of Protocols for *Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

During vegetation community mapping, the boundaries of the vegetation communities were drawn on aerial field maps by hand and were then digitized with GIS software to create the vegetation community map.

3.0 RESULTS

3.1 Literature Review

Numerous rare plant species have been recorded within 5 miles of the Project Area according to the CNDDDB (CDFW 2022a), CNPS Electronic Inventory (CNPS 2022), and What Grows Here (Calflora 2022). Of all available records, a total of 56 rare plant species were identified as those with the potential for occurrence within the vicinity of the Project Area. The 56 species are discussed and detailed in the Potential for Occurrence Table included as Appendix A.

3.1.1 Regulatory Consistency

The California Coastal Act includes special protection for Environmentally Sensitive Habitat Areas (ESHAs). ESHAs are "any areas 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 developments" (California Coastal Act 1976). In order to protect ESHAs, the Draft SAP outlines specific species for conservation and mitigation policies for vegetation. "Other sensitive

species” (i.e., those that do not qualify as wetland obligates, narrow endemics, or critical locations) must be conserved according to the mitigation ratio percentage for the vegetation type in which the species occurs” (City of Encinitas 2001).

The Proposed Project is not within the County of San Diego Multiple Species Conservation Program area; however, it is located within the La Costa softline Focused Planning Area (FPA), a planning area delineated by the City of Encinitas as part of their Draft SAP. The Draft SAP is based on policies outlined in the North County MHCP. Covered plant species within the North County MHCP include:

- San Diego thorn-mint (*Acanthomintha ilicifolia*)
- San Diego ambrosia (*Ambrosia pumila*)
- Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*)
- Encinitas baccharis (*Baccharis vanessae*)
- Wart-stemmed ceanothus (*Ceanothus verrucosus*)
- Orcutt’s spineflower (*Chorizanthe orcuttiana*)
- Summer-holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
- Del Mar Mesa sand aster (*Corethrogyne filaginifolia* var. *linifolia*)
- Cliff spurge (*Euphorbia misera*)
- San Diego barrel cactus (*Ferocactus viridescens*)
- Orcutt’s hazardia (*Hazardia orcuttii*)
- San Diego marsh-elder (*Iva hayesiana*)
- Nuttall’s lotus (*Lotus nuttallianus*)
- Little mousetail (*Myosurus minimus* ssp. *apus*)
- Spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- Torrey pine (*Pinus torreyana* ssp. *torreyana*)
- Nuttall’s scrub oak (*Quercus dumosa*)
- Engelmann oak (*Quercus engelmannii*)
- Parry’s tetracoccus (*Tetracoccus dioicus*)

3.1.2 Reference Population Assessments

All reference populations visited were located within a 10- to 30-mile radius from the Survey Area. Species checked for blooming included Encinitas baccharis and wart-stemmed ceanothus.

Of the reference populations visited, both species were viable (i.e., plants were observed). Encinitas baccharis was observed just prior to its blooming stage but was still identifiable. Wart-stemmed ceanothus was in its blooming stage and identifiable. Table 2 shows the species and dates of reference population assessments.

Table 2. Reference Populations Visited in 2022				
Date Visited	Scientific Name	Common Name	Location	Status
4/19/2022	<i>Ceanothus verrucosus</i>	wart-stemmed ceanothus	Just south of La Costa Ave in Encinitas, California. On a bluff south of Batiquitos Lagoon and 0.2 miles east of Piraeus St (0.1 miles east of the offsite adjacent Preserve Area).	CRPR 2B.2
6/29/2022	<i>Baccharis vanessae</i>	Encinitas baccharis	South of Leucadia Blvd in Encinitas, California. Encinitas Ranch, 0.2 miles west of the junction of Leucadia Blvd and Garden View Road (Approximately 2 miles southeast of Development Area).	FT / SE / CRPR 1B.1

FT – Listed (threatened) under the federal Endangered Species Act

SE – Listed (endangered) under the California Endangered Species Act

California Native Plant Society (CNPS) Rare Plant Ranks:

1B: Plants rare, threatened, and endangered in California and elsewhere.

2B: Plants presumed extirpated in California but common elsewhere.

CNPS Threat Ranks:

0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2: Fairly threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)

Sources:

California Natural Diversity Data Base (CNDDB) (CDFW 2022a)

CNPS Rare and Endangered Plant Inventory (CNPS 2022)

3.2 Focused Rare Plant Surveys

The surveys were scheduled to coincide with target rare plant species' blooming periods and take place during a period when blooming target rare plant species were readily identifiable. Field survey data sheets are included in Appendix B, a plant species compendium is included in Appendix C, and representative site photographs are included in Appendix D.

3.2.1 Physical Conditions

The Proposed Project is surrounded by residential development to the west, south, and east with open habitat to the north. The Proposed Project is within the coastal zone as defined by the California Coastal Commission (CCC 2022). The coastal zone extends 3 nautical miles offshore and the Project is approximately 4,500 feet from the California coastline. Topography of the site is relatively flat within the Development Area with slopes on the western and northern edge. There is a steep drop where the Development Area meets the Preserve Area. Within the Preserve Area, a steep slope occurs in a northeasterly direction. Elevation ranges from 16 feet (5 meters) to 171 feet (52 meters) above mean sea level across the landscape.

3.2.2 Meteorological Conditions

The Encinitas 2.7N weather station, located approximately 1,000 feet from the Project Area, recorded precipitation at 18.61 inches between October 1, 2019, to July 1, 2020, 4.37 inches in 2020-2021, and 5.78 inches in 2021-2022 respectively. Average annual precipitation for the Encinitas 2.7N weather station is approximately 9.76 inches, which falls as rain (NOAA 2022a). Based on the average rainfall totals for the Encinitas, CA weather station, the 2019-2020 rain season was above average while the 2020-2021 and 2021-2022 rain seasons were drought years (NOAA 2022b).

3.2.3 Rare Plant Species Observed

During the 2022 rare plant surveys, four rare plant species were observed: California adolphia (*Adolphia californica*), wart-stemmed ceanothus, Engelmann oak, and ashy spike moss (*Selaginella cinerascens*). All rare plant species observed within the Survey Area are designated as rare by the CNPS. Wart-stemmed ceanothus and Engelmann oak are covered by the MHCP. None of the special-status species found within the Survey Area are state or federally listed under the Endangered Species Acts.

Figure 3 presents rare plant survey results within the Survey Area. The acreages of permanent and temporary impacts to occupied habitat, as well as projected individual counts within the Survey Area, are discussed in Section 4.0.

California Adolphia (CRPR 2B.1)

California adolphia is a dicot, a spiny shrub in the Rhamnaceae family that is native to California. California adolphia has a CNPS California Rare Plant Rank (CRPR) rating of 2B.1, 2B meaning that the species' distribution is "rare, threatened, or endangered in California but common elsewhere", and its threat rank of 0.1 defined as "seriously threatened in California". California adolphia is not covered by the Draft SAP or MHCP. This species was observed in Diegan Coastal Sage Scrub and Southern Mixed Chaparral vegetation communities. Based on extent of occupied habitat, this was the most prevalent rare plant species within the Survey Area. The Development Area contains approximately 154 individuals of California adolphia (including 9 individuals within the FMZ) and 17 individuals within its 100-ft buffer. The Preserve Area contains 103 individuals of California adolphia and 53 individuals within its 100-ft. buffer.

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\WAPS\biological_resources\PE_Bio_Results_V3_Plants.mxd (75)-rotellini 10/25/2022

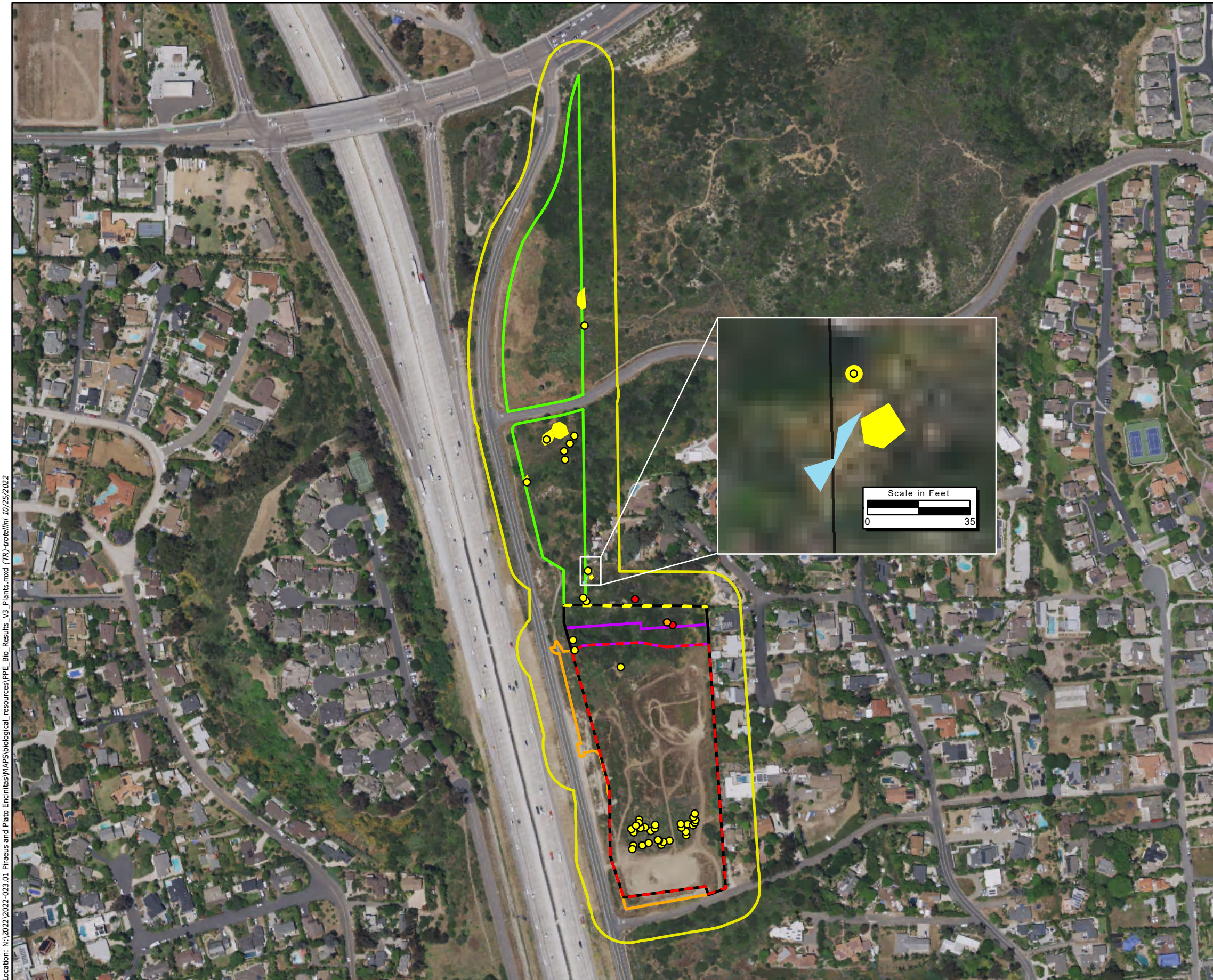


Figure 3. Rare Plant Survey Results

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- SDGE Easement
- 100-ft Buffer

Rare Plant Observations

- California adolphia (*Adolphia californica*)
- Engelmann oak (*Quercus engelmannii*)
- Wart-stemmed ceanothus (*Ceanothus verrucosus*)

Rare plant Occupied Habitat

- Ashy-spike moss (*Selaginella cinerascens*)
- California adolphia (*Adolphia californica*)
- Engelmann oak (*Quercus engelmannii*)
- wart-stemmed ceanothus (*Ceanothus verrucosus*)



Wart-Stemmed Ceanothus (CRPR 2B.2, MHCP Covered)

Wart-stemmed ceanothus is a dicot, a shrub in the Rhamnaceae family that is native to California. Wart-stemmed ceanothus has a CRPR rating of 2B.2, with the same distribution description as California adolphia, and 0.2 threat rank described as "moderately threatened in California." Wart-stemmed ceanothus is a proposed covered species for the Draft SAP and is a MHCP covered species, which is subject to species-specific permit conditions outlined in Section 4, Volume II of the Final MHCP (SANDAG 2003). This species was observed in the Southern Mixed Chaparral vegetation community. One wart-stemmed ceanothus was observed in the onsite Preserve Area and one other individual was documented within the 100-foot buffer of the Project Area.

Engelmann Oak (CRPR 4.2, MHCP Covered)

Engelmann oak is a dicot, a deciduous tree in the Fagaceae family that is native to California. Engelmann oak has a CRPR rating of 4.2, 4.0 meaning that the species distribution is limited and is referred to as a "watch list," and the same threat rank of wart-stemmed ceanothus. Engelmann oak is a proposed covered species for the Draft SAP and is a MHCP covered species, which is subject to species-specific permit conditions outlined in Section 4, Volume II of the Final MHCP (SANDAG 2003). A single Engelmann oak was documented in the onsite Preserve Area, within Southern Mixed Chapparral.

Ashy Spike-Moss (CRPR 4.1)

Ashy spike-moss is a lycopod, a perennial rhizomatous herb in the Selaginellaceae family that is native to California. Ashy spike-moss has a CRPR rating of 4.1, with the same distribution description as Engelmann oak, and its threat rank of 0.1 defined as "seriously threatened in California." Ashy spike-moss is not covered by the Draft SAP or MHCP. Approximately 500 individuals of ashy spike-moss were documented within the offsite adjacent Preserve Area and 250 individuals were documented within the 100-foot buffer of the Project Area, in Southern Mixed Chapparral.

3.3 Vegetation Mapping

The dominant vegetation community present throughout the Development Area is Coastal Scrub and disturbed land cover. Large trees are not present within the Development Area and a patch of Coastal Scrub is located within the center which transitions into Diegan Coastal Sage Scrub along the slopes to the northwest and south. Southern Mixed Chaparral occupies the northern area and transitions into the Preserve Area. The majority of the offsite adjacent Preserve Area contains Diegan Coastal Sage Scrub but also contains smaller portions of Nonnative Riparian and Nonnative Grassland communities.

In reference to MCV communities, Chamise-Mission Manzanita Chaparral and Lemonade Berry Scrub were the only vegetation communities categorized as a California Sensitive Natural Community; however, most of the vegetation communities documented within the Survey Area have mitigation ratios outlined by the MHCP and Draft SAP (VegCAMP; CDFW 2022b; City of Encinitas 2001; SANDAG 2003). The vegetation crosswalk to convert these classifications and their impact mitigation ratio requirements are provided in Table 3. Vegetation communities within the property limits are displayed on Figure 4. The acreages of

each of these communities in the Development Area and the Preserve Areas, are shown in Table 4. Descriptions of each vegetation community or land-use type are provided below.

Table 3. Vegetation Crosswalk of Communities, Land Cover Types, and Impact Mitigation Ratios within Survey Area		
Oberbauer Vegetation Communities and Land Covers	MCV Vegetation Communities and Land Covers	Impact Mitigation Ratio Inside FPA (Preserved:Disturbed)
Diegan Coastal Sage Scrub (32500)	California Sagebrush-California Buckwheat Scrub (<i>Artemisia californica</i> - <i>Eriogonum fasciculatum</i> Shrubland Alliance)	2:1
Diegan Coastal Sage Scrub (32500)	Brittle Bush Scrub (<i>Encelia farinosa</i> Shrubland Alliance)	2:1
Diegan Coastal Sage Scrub (32500)	Lemonade Berry Scrub (<i>Rhus integrifolia</i> Shrubland Alliance) ¹	2:1
Southern Mixed Chaparral (37120)	Chamise-Mission Manzanita Chaparral (<i>Adenostoma fasciculatum</i> - <i>Xylococcus bicolor</i> Shrubland Alliance) ¹	1:1
Coastal Scrub (32000)	Deerweed Scrub (<i>Lotus scoparius</i> Shrubland Alliance)	2:1
Nonnative Grassland (42200)	Annual Brome Grassland (<i>Bromus [diandrus, hordeaceus]</i> - <i>Brachypodium distachyon</i> Semi-Natural Herbaceous Stands)	0.5:1
Nonnative Riparian (65000)	Giant Reed Break (<i>Arundo donax</i> Semi-Natural Herbaceous Stands)	No net loss goal [Replacement Ratio between 1:1 to 3:1]
Disturbed	Disturbed	None

Location: N:\2022\2022-023.01 Pireaus and Plato Encinitas\MAPS\Vegetation_and_Landcover\PE_Vegetation_V2.mxd (TR)-trtelini 10/25/2022

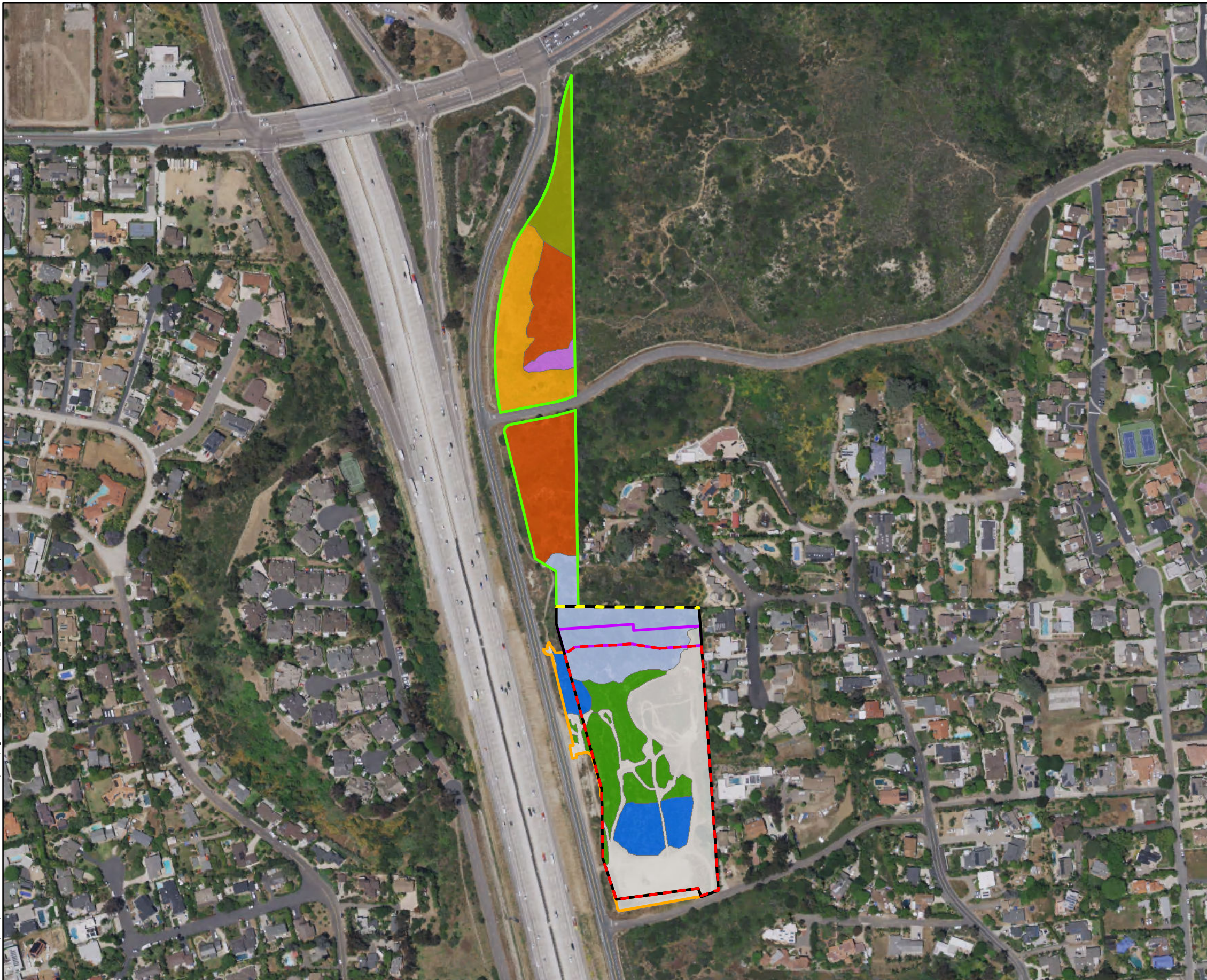


Figure 4. Vegetation Communities and Land Cover Types

Map Content

- Project Boundary
- Offsite Adjacent Preserve Area
- FMZ
- Onsite Impacts
- Offsite Impacts
- SDGE Easement

Vegetation Communities and Land Cover Types

- MCV - Annual Brome Grasslands (*Bromus [diandrus, hordeaceus]-Brachypodium distachyon* Semi-Natural Herbaceous Stand) Oberbauer - Non-native Grassland (42200) **1.380 acres**
- MCV - California Brittle Bush Scrub (*Encelia californica* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **2.430 acres**
- MCV - California sagebrush -California buckwheat scrub (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **0.930 acres**
- MCV - Chamise-mission manzanita chaparral (*Adenostoma fasciculatum-Xylococcus bicolor* Shrubland Alliance) Oberbauer - Southern Mixed Chaparral (37120) **1.968 acres**
- MCV - Deerweed Scrub (*Lotus scoparius* Shrubland Alliance) Oberbauer - Coastal Scrub (32000) **1.441 acres**
- MCV - Giant Reed Break (*Arundo donax* Semi-Natural Herbaceous Stand) Oberbauer - Non-Native Riparian (65000) **0.176 acres**
- MCV - Lemonade Berry Scrub (*Rhus integrifolia* Shrubland Alliance) Oberbauer - Diegan Coastal Sage Scrub (32500) **0.713 acres**
- Disturbed **3.282 acres**

Table 4. Acreages of Vegetation Communities and Land Covers within the Survey Area

Oberbauer Vegetation Communities	MCV Vegetation Communities	Development Area (Impact) (Acres)			Development Area (Impact) Total (Acres)	Preserve Area (No Impact) (Acres)		SDG&E Easement	Total
		Onsite	Offsite Improvements	FMZ		Onsite	Offsite Adjacent		
Diegan Coastal Sage Scrub (32500)	California Sagebrush – California Buckwheat Scrub	0.77	0.16	-	0.93	-	-	-	0.93
Diegan Coastal Sage Scrub (32500)	California Brittle Bush Scrub	-	-	-	-	-	2.43	-	2.43
Diegan Coastal Sage Scrub (32500)	Lemonade Berry Scrub ¹	-	-	-	-	-	0.71	-	0.71
Southern Mixed Chaparral (37120)	Chamise-Mission Manzanita Chaparral ¹	0.65	<0.01	0.48	1.13	0.56	0.25	0.02	1.97
Coastal Scrub (32000)	Deerweed Scrub	1.38	0.06	-	1.44	-	-	-	1.44
Nonnative Grassland (42200)	Annual Brome Grassland	-	-	-	-	-	1.38	-	1.38
Nonnative Riparian (65000)	Giant Reed Break	-	-	-	-	-	0.18	-	0.18
Disturbed	Disturbed	2.96	0.27	0.05	3.28	<0.01	-	-	3.28
Total					6.78	0.56	4.95	0.02	12.32

¹CDFW sensitive vegetation communities

3.3.1 Diegan Coastal Sage Scrub (32500)

The three MCV vegetation communities documented within the Project Area are California Sagebrush-California Buckwheat Scrub (*Artemisia californica*-*Eriogonum fasciculatum* Shrubland Alliance), Brittle Bush Scrub (*Encelia farinosa* Shrubland Alliance), and Lemonade Berry Scrub (*Rhus integrifolia* Shrubland Alliance). However, to consider the mitigation ratios of the MHCP and the Draft SAP, all three can be converted to Oberbauer's Diegan Coastal Sage Scrub. Within the Project Area, this community was co-

dominated with California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). Other species such as deerweed (*Acmispon glaber*), lemonade berry (*Rhus integrifolia*), and coastal prickly pear (*Opuntia littoralis*) were also present. Most shrubs were less than 2 meters tall on southern and western facing slopes. This vegetation community is located in the southern and northwestern portions of the Development Area, and within the middle and northern portions of the offsite adjacent Preserve Area. Diegan Coastal Sage Scrub is included in the Group C: Coastal Sage Scrub habitat group under the MHCP and Draft SAP. Within the FPA, Diegan Coastal Sage Scrub is required to be mitigated at a 2:1 ratio. (City of Encinitas 2001; SANDAG 2003). California Sagebrush-California Buckwheat Scrub, one of the three MCV vegetation communities considered as Diegan Coastal Sage Scrub, is not considered a sensitive natural community by CDFW, with a global rarity rank of G4 and state rarity rank of S4. The second MCV equivalent, Brittle Bush Scrub, is also not considered a sensitive natural community with a global rarity rank of G5 and state rarity rank of S4. Finally, the last MCV equivalent, Lemonade Berry Scrub, is considered a sensitive vegetation community with a global and state rarity rank of G3 and S3, respectively (VegCAMP; CDFW 2022b).

3.3.2 Southern Mixed Chaparral (37120)

Chamise-Mission Manzanita Chaparral (*Adenostoma fasciculatum*-*Xylococcus bicolor* Shrubland Alliance) an MCV classification, can be converted to Oberbauer's Southern Mixed Chaparral. It was found within the Development Area and Preserve Area. It is a chaparral community, which consists of mostly hard-woody shrubs less than 3 meters tall with an intermittent to continuous canopy. Dominant species within this community consisted of chamise (*Adenostoma fasciculatum*) and mission manzanita (*Xylococcus bicolor*) as a subdominant, but also consisted of laurel sumac, toyon (*Heteromeles arbutifolia*), lemonade berry, and black sage (*Salvia mellifera*). This vegetation community is located in the northern portion of the Development Area and southern portions of the Preserve Area. Southern Mixed Chaparral is included in the Group D: Chaparral habitat group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). Within the FPA, Southern Mixed Chaparral must be mitigated at a 1:1 ratio. (City of Encinitas 2001; SANDAG 2003). CDFW considers Chamise-Mission Manzanita Chaparral as a sensitive vegetation community as this community has a global rarity rank of G4 and a state rank of S3 (VegCAMP; CDFW 2022b).

3.3.3 Coastal Scrub (32000)

Deerweed Scrub (*Lotus scoparius* Shrubland Alliance), an MCV classification, can be converted to Oberbauer's Coastal Scrub. This community is associated with moderate to dense scrub and was primarily dominated by deerweed within the Development Area. Other species included California sagebrush, coyote brush (*Baccharis pilularis*), and scattered individuals of California everlasting (*Pseudognaphalium californicum*). Deerweed Scrub/Coastal Scrub is included in the Group C: Coastal Sage Scrub habitat group under the Draft SAP and MHCP. Within the FPA, Coastal Scrub must be mitigated at a 2:1 ratio. (City of Encinitas 2001; SANDAG 2003). CDFW does not consider Deerweed Scrub a sensitive community, it has a global rarity rank of G5 and a state rarity rank of S5 (VegCAMP; CDFW 2022b).

3.3.4 Nonnative Grassland (42200)

Annual Brome Grassland (*Bromus [diandrus, hordeaceus]-Brachypodium distachyon* Semi-Natural Herbaceous Stands), an MCV classification, can be converted to Oberbauer's Nonnative Grassland. This community is only present within the offsite adjacent Preserve Area north of Sky Loft Road and was primarily dominated by rip-gut brome (*Bromus diandrus*). Other species included black mustard (*Brassica nigra*), foxtail brome (*Bromus madritensis*), and red-stemmed filaree (*Erodium cicutarium*). Nonnative Grassland is included in the Group E: Annual Grassland habitat group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW considers Annual Brome Grassland a semi-natural stand and a global and state rarity rank is not applicable (VegCAMP; CDFW 2022b).

3.3.5 Nonnative Riparian (65000)

Giant Reed Break (*Arundo donax* Semi-Natural Herbaceous Stands), an MCV classification, can be converted to Oberbauer's Nonnative Riparian community. This community is associated with a continuous canopy and usually associated with riparian areas. Within the Survey Area, this community was dominated by giant reed (*Arundo donax*) but also included castor bean (*Ricinus communis*) and hottentot fig (*Carpobrotus edulis*) within a small portion of the offsite adjacent Preserve Area north of Sky Loft Road. Nonnative Riparian is included in the Group A: Wetland/Riparian under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW considers Giant Reed Break a semi-natural stand and a global and state rarity rank is not applicable (VegCAMP; CDFW 2022b).

3.3.6 Disturbed

The classification disturbed is a land cover type and not a vegetation classification. Areas mapped as disturbed were heavily altered due to human disturbance and were dominated by open areas, dirt paths, and nonnative weedy and ruderal vegetation. Dominant plant species of the disturbed areas of the Development Area were nonnative herbs including red-stemmed filaree, hottentot fig, and crystalline ice plant (*Mesembryanthemum crystallinum*). Disturbed land cover type is included in the Group F: Other group under the Draft SAP and MHCP (City of Encinitas 2001; SANDAG 2003). CDFW does not consider disturbed as a vegetation community.

3.4 Incidental Wildlife Observations

An incidental special-status wildlife species was documented during the rare plant survey effort. One California gnatcatcher (*Polioptila californica californica*), a federally-listed (endangered) species, was observed in the Diegan Coastal Sage Scrub by Caroline Garcia on April 21, 2022. The California gnatcatcher was observed foraging on the southern side of the Development Area and headed northwest. This incidental observation was reported in the *Results of the 2022 Focused Coastal California Gnatcatcher Surveys for the Piraeus Point Project* Report (ECORP 2022).

4.0 POTENTIAL PROJECT EFFECTS ON SPECIES AND HABITATS

This section discusses the potential impacts to rare plant species and vegetation communities within the Project Area. The following analysis assumes that the rare plants and vegetation communities within the

Development Area will be directly impacted as a result of the Project; however, rare plants that were documented within the FMZ will be individually avoided during vegetation reduction activities. Direct impacts entail those that destroy or displace a species or its habitat. These impacts will occur in association with Project construction due to grading, paving, and other disturbances associated with development.

4.1 Direct Impacts

Based on the Project Area boundaries, the Project could directly impact an estimated 145 California adolphia individuals, excluding nine that occur in the FMZ that will be avoided during vegetation reduction activities. In addition, Project-related impacts could occur to 0.02 acre of occupied California adolphia habitat. Table 5 presents the number of rare plant species and their occupied habitat that could be affected by the Project within the Development area (excluding the FMZ).

Table 5. Summary of Direct Project Impacts to Rare Plant Species and their Habitat			
	Direct Development Area Impacts (excluding FMZ) (Acres)		
	Site	Offsite Improvements	Total
Rare Plant Species (field estimations)			
California adolphia	145	0	145
Occupied Habitat (acres)			
California adolphia	0.02	0	0.02

Based on the current Project Area boundaries and as shown by Table 4, direct impacts could occur to multiple vegetation communities and land-cover types documented within the 6.78-acre Development Area including 1.13 acres of Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral which is considered a sensitive natural community.

4.2 Indirect Impacts

The Project could result in indirect impacts to rare plants species and their habitat. These impacts could occur due to proximity of construction during the short term and due to urban edge effects over the long term. Table 6 shows the indirect impacts to rare plant species and their habitat and Table 7 shows indirect impacts to vegetation communities, within a 100-foot buffer of the Development Area and FMZ.

Table 6. Summary of Indirect Project Impacts to Rare Plant Species and their Habitat		
	Indirect Project Impacts within 100 feet of Development Area	Indirect Project Impacts within FMZ
Rare Plant Species (field estimations)		
California adolphia	17	9
Engelmann oak	1	0
Wart-stemmed ceanothus	1	0
Occupied Habitat (acres)		
California adolphia	<0.01	<0.01
Engelmann oak	<0.01	0
Wart-stemmed ceanothus	<0.01	0
Total Acres:	<0.01	<0.01

Table 7. Summary of Indirect Project Impacts to Vegetation Communities		
Oberbauer Vegetation Communities	MCV Vegetation Communities	Indirect Impacts within 100 feet of Development Area and FMZ (in acres)
Diegan Coastal Sage Scrub (32500)	California Sagebrush-California Buckwheat Scrub (<i>Artemisia californica</i> - <i>Eriogonum fasciculatum</i> Shrubland Alliance)	<0.01
Southern Mixed Chaparral (37120)	Chamise-Mission Manzanita Chaparral (<i>Adenostoma fasciculatum</i> - <i>Xylococcus bicolor</i> Shrubland Alliance) ¹	0.63
Disturbed	Disturbed	0.01
Total		0.64

5.0 SUMMARY

5.1 Literature Review

Multiple rare plant species occurrences in the CNDDb were found during the literature review; however, none were previously documented within the Project Area (CDFW 2022a). All records that contributed to the target plant list are less than 20 years old and/or within 5 miles of the Project Area and have profiles that match the habitat that occurs within the Project Area.

5.2 Survey Results

Of the 56 rare plant species with potential to occur within the Survey Area, a total of four rare plant species were observed and mapped within the Survey Area over the course of three surveys conducted during the 2022 season: California adolphia, Engelmann oak, wart-stemmed ceanothus, and ashy-spike moss. Based on the current Project Area, the Project could directly impact California adolphia. California adolphia is not covered under the MHCP or Draft SAP, and is not a state or federally listed species under the Endangered Species Acts, but does have a CRPR rating of 2B.1. In addition, the Project could indirectly impact California adolphia, wart-stemmed ceanothus, and Engelmann oak if mitigation measures are not employed. Both wart-stemmed ceanothus and Engelmann oak are covered by the MHCP and Draft SAP and have a CRPR rating of 2B.2 and 4.2 respectively.

A total of five Oberbauer or seven MCV vegetation communities were mapped within the Survey Area. Direct impacts could occur to three Oberbauer/MCV vegetation communities: Diegan Coastal Sage Scrub/California Sagebrush – California Buckwheat Scrub, Coastal Scrub/Deerweed Scrub, and Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral. Of these, only Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral is considered a sensitive natural community by CDFW; however, all three communities have specific mitigation ratios according to the MHCP and Draft SAP (VegCAMP; CDFW 2022b; City of Encinitas 2001; SANDAG 2003). Furthermore, the Project could indirectly impact additional acreages of Diegan Coastal Sage Scrub/California Sagebrush – California Buckwheat Scrub and Southern Mixed Chaparral/Chamise-Mission Manzanita Chaparral if mitigation measures are not employed. Both communities have specific mitigation ratios according to the MHCP and Draft SAP (City of Encinitas 2001; SANDAG 2003).


5.3 Survey Limitations

Recent climate patterns prior to the surveys were not ideal and are considered a limiting factor in the detection of plants that bloom during the spring and summer. Average annual precipitation for the Encinitas 2.7N weather station is approximately 9.76 inches, which falls as rain (NOAA 2022a). Based on the average rainfall totals for the Encinitas 2.7N weather station, the 2019-2020 rain season was above average while the 2020-2021 and the 2021-2022 rain seasons were drought years (NOAA 2022b). There is a possibility that additional rare plant species are present within the Survey Area but were either dormant or were unable to germinate, and therefore would not be detectable by the surveyors at the time of the surveys.

6.0 CERTIFICATION STATEMENT

"I certify that the information in this survey report and attached exhibits fully and accurately represents my work."

Signature:  Date: September 23, 2022
Christine Tischer

Signature:  Date: September 23, 2022
Greg Hampton

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LIST OF APPENDICES

Appendix A – Potential for Occurrence Table

Appendix B – Field Survey Data Sheets

Appendix C – Plant Species Compendium

Appendix D – Representative Site Photographs

Potential for Occurrence Table

Rare plant species available for review within the database searches were assessed for their potential to occur within the Project Area based on the following criteria guidelines:

- **Present:** The species was observed on-site during a site visit or focused survey.
- **High:** Habitat (including soils and elevation factors) for the species occurs within the Project Area and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the Project Area.
- **Moderate:** Habitat (including soils and elevation factors) for the species occurs within the Project Area and a documented observation occurs within the database search, but not within 5 miles of the Project Area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or a recently documented observation occurs within 5 miles of the Project Area and marginal or limited amounts of habitat occurs in the Project Area.
- **Low:** Limited or marginal habitat for the species occurs within the Project Area and a recently documented observation occurs within the database search, but not within 5 miles of the Project Area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Area; or suitable habitat strongly associated with the species occurs within the Project Area, but no records or only historic records were found within the database search.
- **Presumed Absent:** Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist within the Project Area; or the known geographic range of the species does not include the Project Area.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Adolphia californica</i> California adolphia	USFWS: None CDFW: None CRPR: 2B.1 MHCP: Not Covered	Dec-May (10-740)	Chaparral Coastal sage scrub Valley and foothill grasslands Clay soils	Present: This species was observed on the Project site during the 2022 and 2019 surveys and 22 recent observations occur within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Present: 154 individuals observed in Development Area (including 9 individuals within the FMZ) and 17 individuals within its 100-ft buffer. 103 individuals within Preserve Area and 53 individuals within its 100-ft. buffer.
<i>Acanthomintha ilicifolia</i> San Diego thorn-mint	USFWS: THR CDFW: END CRPR: 1B.1 MHCP: Covered	Apr-Jun (10-960)	Chaparral Coastal sage scrub Valley and foothill grassland Vernal pools Clay soils; occurs in openings	High: The site provides suitable habitat for this species. Ten observations of this species have been made within 5 miles of the Project, with the closest being 2.5 miles north of the Project site in 2019. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Agave shawii</i> var. <i>shawii</i> Shaw's agave	USFWS: None CDFW: None CRPR: 2B.1 MHCP: Not Covered	Sept-May (3-120)	Maritime succulent scrub Coastal bluff scrub Coastal sage scrub	High: The site provides suitable habitat for this species. There is one observation of this species 3.3 miles northwest of the site in 2016.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> Del Mar manzanita	USFWS: END CDFW: None CRPR: 1B.1 MHCP: Covered	Dec-Jun (0-365)	Chaparral (maritime, sandy)	High: The site provides suitable habitat for this species. Ten recent observations of this species were within 5 miles of the Project site, with the closest being less than 1 mile away in 2020. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Bloomeria clevelandii</i> San Diego goldenstar	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	April-May (50-465)	Chaparral Coastal scrub Valley and foothill grassland Vernal pools	High: The site provides suitable habitat for this species. Four recent observations of this species have occurred within 5 miles of the Project site. The nearest one was in 2021, and was 3.6 miles east of the Project site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	USFWS: None CDFW: None CRPR: 2B.2 MHCP: Covered	Dec-May (1-380)	Chaparral	High: The site provides suitable habitat for this species. Eleven recent records of fifteen total occur within 5 miles of the Project site with the closest being from 2015, approximately 0.79 miles northeast of the site.	Present: One wart-stemmed ceanothus was observed in the Preserve Area and one other individual was documented within the 100-foot buffer of the Preserve Area.
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> summer holly	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Covered	Apr-Jun (30-790)	Chaparral Cismontane woodland	High: The site provides suitable habitat for this species. Thirteen recent observations and twenty five total observations of this species occur within 5 miles of the Project site. The closest observation is 1.2 miles east of the Project in 2005.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> Del Mar Mesa sand aster	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Covered	May-Sept (15-150)	Coastal bluff scrub Maritime chaparral Coastal sage scrub	High: The site provides suitable habitat for this species. Six recent observations of this species have been made within 5 miles of the Project site. The closest was in 2005, 1.4 miles east of the site. There is also a historical observation of an unknown year of this species on the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Cryptantha wigginsii</i> Wiggins' cryptantha	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	Feb-June (20-275)	Coastal sage scrub Clay soils	High: The site provides suitable habitat for this species. Three observations of this species were made in 2013, the closest of which was 2.8 miles northeast of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Ericameria palmeri</i> var. <i>palmeri</i> Palmer's goldenbush	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	July-Nov (30-600)	Chaparral Coastal sage scrub Mesic soils	High: The site provides suitable habitat for this species. One recent (2009) sighting occurred 0.59 miles northwest of the Project site. No other observations found in a 5-mile database search. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Ferocactus viridescens</i> San Diego barrel cactus	USFWS: None CDFW: None CRPR: 2B.1 MHCP: Covered	May-June (3-450)	Chaparral Coastal sage scrub Valley and foothill grassland Vernal pools	High: The site provides suitable habitat for this species. Three recent and two historic observations of this species exist within a 5-mile radius of the Project site. The nearest recent observation is 3.9 miles southeast of the Project site in 2008. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Isocoma menziesii</i> var. <i>decumbens</i> decumbent goldenbush	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	Apr-Nov (10-135)	Chaparral Coastal sage scrub	High: The site provides suitable habitat for this species. One recent observation of this species within 4.2 miles of the site. Three additional historic observations within a 5 mile radius of site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Leptosyne maritima</i> sea dahlia	USFWS: None CDFW: None CRPR: 2B.2 MHCP: Not Covered	March-May (5-150)	Coastal bluff scrub Coastal sage scrub	High: The site provides suitable habitat for this species. Eight observations within a 5-mile radius of the Project area. The closest of which was made in 2009, and was 0.61 miles east of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Quercus dumosa</i> Nuttall's scrub oak	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Covered	Feb-Apr (15-400)	Closed-cone coniferous forest Chaparral Coastal sage scrub Sandy, clay loam soils	High: The site provides suitable habitat for this species. There have been seventeen recent observations of this species within a 5 mile radius out of twenty-one total observations. The closest observation was 1.4 miles east of the site in 2013. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Baccharis vanessae</i> Encinitas baccharis	USFWS: THR CDFW: END CRPR: 1B.1 MHCP: Covered	Aug, Oct, Nov (60-720)	Chaparral (Torrey pine forest) Cismontane woodland Sandstone	Moderate: The site provides limited suitable habitat for this species. Three recent observations of this species are within 5 miles of the Project site with the nearest being recorded 1.4 miles southeast of the site in 2017.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Sphenopholis interrupta</i> ssp. <i>californica</i> prairie false oat	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	April (15)	Coastal chaparral	Moderate: The site provides suitable habitat for this species. One recent (2020) observation of this species has been made in a 5-mile radius of the Project site. This observation was of an individual 2.8 miles north of the Project site.	Presumed Absent: Not observed during focused surveys.
<i>Acmispon prostrates</i> Nuttall's acmispon	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	March-July (0-10)	Coastal sage scrub Coastal dunes Sandy soils	Moderate: The site provides marginal suitable habitat for this species and lacks sandy soils. Five total observations of this species occur within a 5-mile radius, four of which were recent. The nearest observation was 0.8 miles west of the site in 2016. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Chorizanthe orcuttiana</i> Orcutt's spineflower	USFWS: END CDFW: END CRPR: 1B.1 MHCP: Covered	March-May (3-125)	Sandy soils Closed-cone coniferous forest Maritime Chaparral Coastal sage scrub	Moderate: The site provides suitable habitat for this species. One recent (2017) observation recorded within 2.8 miles of the site. Observation was a small and isolated grouping in a disturbed area.	Presumed Absent: Not observed during focused surveys.
<i>Artemisia palmeri</i> San Diego sagewort	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	May-Sep (15-915)	Chaparral Coastal sage scrub Riparian forest Riparian scrub Riparian woodland Sandy, mesic soils	Low: The site provides suitable habitat for this species. One historic observation of this species exists 2.3 miles northeast of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Atriplex coulteri</i> Coulter's saltbush	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	March-Oct (3-460)	Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland Alkaline and clay soils	Low: The site provides limited suitable habitat for this species. Alkaline and clay soils are not present on site. One recent (2004) observation of this species is 4.4 miles north of the project site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Atriplex pacifica</i> south coast saltscale	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	March- Oct (0-140)	Coastal bluff scrub Coastal dunes Coastal scrub Playas	Low: The site provides limited suitable habitat for this species. Five recent observations have occurred within 5 miles of the site. The nearest was in 2014, and was 2.3 miles northwest of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Brodiaea filifolia</i> thread-leaved brodiaea	USFWS: THR CDFW: END CRPR: 1B.1 MHCP: Not Covered	Mar-Jun (25-1120)	Chaparral Cismontane woodland Coastal sage scrub Playas Valley and foothill grassland Vernal pools Often clay soils	Low: The site provides limited suitable habitat for this species. Eight recent observations of this species are within 5 miles of the Project site, however, the site lacks seasonally ponded areas required for this species. The closest observation is 1.8 miles northwest of the site from 2019. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Brodiaea orcuttii</i> Orcutt's brodiaea	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	May-Jul (30-1692)	Closed-cone coniferous forest Chaparral Cismontane woodland Meadows and seeps Valley and foothill grassland Vernal pools Mesic, clay soils	Low: The site provides limited suitable habitat for this species. Seven recent observations of this species are within 5 miles of the Project site; however, the site lacks seasonally ponded areas required for this species. The closest observation is 1.8 miles northwest of the site in 2018.	Presumed Absent: Not observed during focused surveys.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	Jan-Aug (0-100)	Sandy soils Coastal bluff scrub Coastal dunes	Low: The site provides limited suitable habitat for this species. Three recent observations of this species exist within 5 miles of the site. The closest was in 2015, and was 0.71 miles west of the site.	Presumed Absent: Not observed during focused surveys.
<i>Dichondra occidentalis</i> western dichondra	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-June (50-500)	Chaparral Cismontane woodland Coastal sage scrub Valley and foothill grassland	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	April-June (5-450)	Coastal bluff scrub Chaparral Coastal sage scrub Valley and foothill grassland	Low: The site provides limited suitable habitat for this species. One recent (2016) observation recorded 3.7 miles northeast of the Project site. This is the only recent sighting of this species within 5 miles of the site.	Presumed Absent: Not observed during focused surveys.
<i>Dudleya viscida</i> sticky dudleya	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	May-June (10-550)	Coastal bluff scrub Chaparral Cismontane woodland Coastal sage scrub Rocky soils	Low: The site provides limited suitable habitat for this species. The site lacks rocky soils. One recent (2015) observation of this species recorded 3.0 miles east of the Project site. This is the only recent sighting of this species within 5 miles of the site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	USFWS: END CDFW: END CRPR: 1B.1 MHCP: Not Covered	Apr-Jun (20-620)	Coastal sage scrub Valley and foothill grassland Vernal pools Mesic soils	Low: The site provides limited suitable habitat for this species as the site lacks seasonally ponded areas required for this species. One record of this species has been recorded approximately 2 miles northwest of the site in 2017. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Erysimum ammophilum</i> sand-loving wallflower	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	Feb-June (0-60)	Maritime chaparral Coastal dunes Coastal sage scrub Coastal strand	Low: The site provides suitable habitat for this species. One historic (unknown year) observation recorded 4.5 miles south of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Euphorbia misera</i> cliff spurge	USFWS: None CDFW: None CRPR: 2B.2 MHCP: Covered	Dec-Oct (10-500)	Coastal bluff scrub Coastal sage scrub Mojavean desert scrub Rocky soils	Low: The site provides limited suitable habitat for this species. Rocky soils absent on the Project site. Four observations of this species were made within a 5-mile radius of the Project site in 2015. The closest observation was 3.3 miles northwest of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Hazardia orcuttii</i> Orcutt's hazardia	USFWS: None CDFW: THR CRPR: 1B.1 MHCP: Covered	Aug-Oct (80-85)	Maritime Chaparral Coastal sage scrub Clay soils	Low: The site provides limited suitable habitat for this species. Clay soils absent on the Project site. Four recent (2010) observations of this species exist within a 5-mile radius of the Project site. The nearest is 2.9 miles northeast of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i> beach goldenaster	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	Mar-Dec (0-1225)	Beaches Mud flats Coastal dunes Coastal chapparal Coastal sage scrub	Low: The site provides marginal suitable habitat for this species. One observation of this species recorded within 5 miles of the site. This observation took place in 2007, and was seen 4.1 miles south of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Hordeum intercedens</i> vernal barley	USFWS: None CDFW: None CRPR: 3.2 MHCP: Not Covered	Mar-Jun (5-1000)	Coastal dunes Coastal sage scrub Valley and foothill grassland (depressions, saline flats) Vernal pools	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Iva hayesiana</i> San Diego marsh-elder	USFWS: None CDFW: None CRPR: 2B.2 MHCP: Covered	April-Oct (10-500)	Marshes and swamps Playas	Low: The site provides limited suitable habitat for this species. Seven recent observations of this species have been made within 5 miles of the Project site. The nearest was 0.05 miles from the site in 2005.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	USFWS: None CDFW: None CRPR: 1B.1 MHCP: Not Covered	Feb-June (1-1220)	Coastal salt marshes and swamps Playas Vernal pools	Low: The site provides limited suitable habitat for this species. One recent and two historic observations of this species recorded within 5 miles of the Project site. One observation took place in 2017 and was 4.9 miles southeast of the Project site. However, one historical record from 1935 shows this species within the Project site.	Presumed Absent: Not observed during focused surveys.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	USFWS: None CDFW: None CRPR: 4.3 MHCP: Not Covered	Jan-Jul (1-885)	Chaparral Coastal sage scrub	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Lycium californicum</i> California box-thorn	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-Aug 5-150	Coastal bluff scrub Coastal sage scrub	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> small-flowered microseris	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-May (15-1070)	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pools	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Ophioglossum californicum</i> California adder's-tongue	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Jan-Jun (60-525)	Chaparral Valley and foothill grassland Vernal pools (margins)	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> short-lobed broomrape	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	April-Oct (3-305)	Coastal bluff scrub Coastal dunes Coastal sage scrub	Low: The site provides limited suitable habitat for this species. One historic observation of this species has been recorded within a 5 mile radius of the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Pinus torreyana</i> ssp. <i>torreyana</i> Torrey pine	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Covered	- (3-160)	Closed-cone coniferous forest Chaparral	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Selaginella cinerascens</i> ashy spike-moss	USFWS: None CDFW: None CRPR: 4.1 MHCP: Not Covered	--- (20-640)	Chaparral Coastal Scrub	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Present: ~500 individuals within the Preserve Area and 250 individuals within the 100-foot buffer of the Preserve Area.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Stipa diegoensis</i> San Diego County needle grass	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Feb-Jun (10-800)	Chaparral Coastal sage scrub	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Suaeda esteroa</i> estuary seablite	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	May-Oct (0-5)	Coastal salt marsh Wetland-riparian	Low: The site does not provide suitable habitat for this species. Two recent observations of this species occurred in 2005. The nearer of these observations was 0.05 miles northwest of the Project site.	Presumed Absent: Not observed during focused surveys.
<i>Viguiera laciniata</i> San Diego County viguiera	USFWS: None CDFW: None CRPR: 4.3 MHCP: Not Covered	Feb-Jun (60-750)	Chaparral Coastal sage scrub	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Camissoniopsis lewisii</i> Lewis' Evening-primrose	USFWS: None CDFW: None CRPR: 3 MHCP: Not Covered	Mar-Jun (0-300)	Coastal bluff scrub Cismontane woodland Coastal dunes Coastal scrub Valley and foothill grassland Sandy or clay soils	Low: The site provides suitable habitat for this species. This species appeared within a CNPS quadrat database search. No records of this species are within 5 miles of the site.	Presumed Absent: Not observed during focused surveys.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	April-July (30-1530)	Chaparral Coastal sage scrub Meadows Valley and foothill grassland Vernal pools Clay soils	Low: The site provides limited suitable habitat for this species. One historic observation (2000) occurs 2.8 miles southeast of the site.	Presumed Absent: Not observed during focused surveys.
<i>Cistanthe maritima</i> seaside cistanthe	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-Jun (<300)	Sandy soils Coastal bluff scrub Coastal scrub Valley and foothill grassland	Low: The site provides suitable habitat for this species. This species appeared within a CNPS quadrat database search. No records of this species are within 5 miles of the site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Harpagonella palmeri</i> Palmer's grapplinghook	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-May (20-955)	Chaparral Coastal sage scrub Valley and foothill grassland Clay soils	Low: The site provides limited suitable habitat for this species. Eleven historic observations of this species recorded within 5 miles, but no recent observations. Clay soils absent in the Project site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Convolvulus simulans</i> small-flowered morning-glory	USFWS: None CDFW: None CRPR: 4.2 MHCP: Not Covered	Mar-May (15-1070)	Seeps Vernal pools Cismontane woodland Coastal scrub Valley and foothill grassland	Presumed Absent: The site does not provide suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.
<i>Erythranthe diffusa</i> Palomar monkeyflower	USFWS: None CDFW: None CRPR: 4.3 MHCP: Not Covered	April-June (1220-1830)	Chaparral Lower montane coniferous forest	Presumed Absent: The Project site is outside of this species' known elevation range. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Quercus engelmannii</i> Engelmann oak	USFWS: None CDFW: None CRPR: 4.2 MHCP: Covered	Mar-Jun (50-1300)	Chaparral Cismontane woodland Riparian woodland Valley and foothill grassland	Low: The site provides suitable habitat for this species. No records of this species are within 5 miles of the site. This species appeared within a CNPS quadrat database search.	Present: 1 individual documented in southern portion of the Preserve Area.
<i>Myosurus minimus ssp. apus</i> little mouseltail	USFWS: None CDFW: None CRPR: 3.1 MHCP: Covered	Mar-Jun (20-640)	Valley and foothill grassland Vernal pools (alkaline)	Presumed Absent: The site does not provide suitable habitat for this species. One observation from an unknown year exists 1.8 miles northwest of the Project site.	Presumed Absent: Not observed during focused surveys.
<i>Navarretia fossalis</i> spreading navarretia	USFWS: THR CDFW: None CRPR: 1B.1 MHCP: Covered	Apr-Jun (30-655)	Chenopod scrub Marshes and swamps Playas Vernal pools	Presumed Absent: The site does not provide suitable habitat for this species. One historic observation of this species is within 5 miles of the Project site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
<i>Scientific Name</i> Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	USFWS: None CDFW: None CRPR: 1B.2 MHCP: Not Covered	April-Sept (0-100)	Coastal dunes Coastal strand	Presumed Absent: The site does not provide suitable habitat for this species. Three recent observations (2015) have been made within 5 miles of the site. The closest observation was 0.74 miles west of the site.	Presumed Absent: Not observed during focused surveys.
<i>Orcuttia californica</i> California Orcutt grass	USFWS: END CDFW: END CRPR: 1B.1 MHCP: Covered	April-Aug (15-660)	Vernal pools Valley grassland Wetland-riparian	Presumed Absent: The site does not provide suitable habitat for this species. One recorded observation of this species exists within 5 miles of the site. This observation occurred in 2005, and was 1.7 miles northwest of the site.	Presumed Absent: Not observed during focused surveys.

Special-Status Plant Species with Potential to Occur on the Proposed Project					
Scientific Name Common Name	Status	Flowering Period / Elevation Range (meters)	Habitat	Potential to Occur Based on Literature Review and Bio Recon	Potential to Occur After 2022 Focused Surveys
<p><u>Federal Designations</u> (FESA, USFWS) END: Federally listed, endangered THR: Federally listed, threatened</p> <p><u>State Designations</u> (CESA, CDFW) END: State-listed, endangered THR: State-listed, threatened</p> <p>California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) Designations: 1A: Plants presumed extinct in California. 1B: Plants rare and endangered in CA and throughout their range. 2: Plants rare, threatened, or endangered in CA but more common elsewhere in their range. 3: Plants about which need more information; a review list. 4: Plants of limited distribution; a watch list.</p> <p>Plants 1B, 2, 3, and 4 extension meanings: .1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat) .2 Fairly endangered in California (20-80% occurrences threatened) .3 Not very endangered in CA (<20% of occurrences threatened or no current threats known)</p> <p><u>Local Designations</u> [Multiple Habitat Conservation Plan (MHCP)] Covered: Species adequately conserved through the conservation and management actions implemented through adoption of the MHCP Plan and by each Subarea Plan once finalized.</p>					
<p>Sources: California Natural Diversity Data Base (CDFW 2022a), California Native Plant Society Electronic Inventory (CNPS 2022), Final MHCP Plan (SANDAG 2003)</p>					

APPENDIX B

Field Survey Data Sheets

Osmadenia tenella
Melica imperfecta

Acacia pycnantha
Plumbago auriculata

PIRAEUS POINT PROPERTY PLANT SPECIES OBSERVED

Scientific Name	Common Name	2017	2019	2022
VASCULAR PLANTS				
ANGIOSPERMS (DICOTYLEDONS)				
Adoxaceae	Moschatel Family			
<i>Sambucus nigra</i> ssp. <i>caerulea</i> (<i>Sambucus cerulea</i>)	black elderberry		X	X
Agavaceae	Century Plant Family			
<i>Agave americana</i> *	American century plant		X	X
<i>Yucca schidigera</i>	Mojave yucca		X	X
Aizoaceae	Iceplant Family			
<i>Carpobrotus edulis</i> *	hottentot fig		X	X
<i>Mesembryanthemum crystallinum</i> *	crystalline ice plant		X	X
Anacardiaceae	Cashew Family			
<i>Malosma laurina</i>	laurel sumac		X	X
<i>Rhus integrifolia</i>	lemonade berry		X	X
Apiaceae	Carrot Family			
<i>Daucus pusillus</i>	American wild carrot		X	
<i>Foeniculum vulgare</i> *	sweet fennel			X
Araucariaceae	Araucaria Family			
<i>Araucaria heterophylla</i> *	Norfolk Island pine		X	
Areaceae	Palm Family			
<i>Washingtonia robusta</i> *	Mexican fan palm			X
Asteraceae	Sunflower Family			
<i>Ambrosia psilostachya</i>	western ragweed			X
<i>Artemisia californica</i>	California sagebrush		X	X
<i>Asteraceae</i> sp. *	sunflower		X	
<i>Baccharis pilularis</i>	coyote brush		X	X
<i>Centaurea melitensis</i> *	totalote		X	X
<i>Deinandra fasciculata</i>	clustered tarweed		X	X
<i>Dimorphotheca sinuata</i> *	African daisy			X
<i>Encelia californica</i>	California brittlebush		X	X
<i>Erigeron canadensis</i> *	horseweed		X	
<i>Eriophyllum confertiflorum</i>	golden-yarrow		X	X
<i>Glebionis coronaria</i> *	crown daisy		X	X
<i>Hazardia squarrosa</i>	saw-toothed goldenbush		X	X
<i>Hedypnois cretica</i> *	crete weed		X	X
<i>Heterotheca grandiflora</i>	telegraphweed			X
<i>Hypochaeris glabra</i> *	smooth cat's ear		X	X
<i>Isocoma</i> sp.	goldenbush		X	
<i>Lactuca serriola</i> *	prickly lettuce		X	X
<i>Logfia gallica</i> *	narrowleaf cottonrose		X	
<i>Osteospermum monstrosum</i> *	one eye monster			X

-Isocoma menziesii
Daucus pusillus

Dichelostemma capitatum
Sadleria pulchralata

Cirsium occidentale
Chaenactis glabriuscula V. gla
Sanicula
crassicaulis
Aptenia cordifolia

Ely con
Lon mae

Calystegia macro

<i>Pseudognaphalium biolettii</i>	two-color rabbit-tobacco			X
<i>Pseudognaphalium californicum</i>	California everlasting		X	X
<i>Pseudognaphalium stramineum</i>	cottonbatting plant		X	
<i>Silybum marianum</i> *	milk thistle			X
<i>Sonchus oleraceus</i> *	common sow-thistle		X	X
<i>Sonchus tenerrimus</i> *	slender sowthistle		X	
<i>Stephanomeria</i> *	wire lettuce		X	
<i>Stephanomeria virgata</i> *	rod wire lettuce		X	
<i>Stylocline gnaphaloides</i>	everlasting neststraw		X	
Boraginaceae	Borage Family			
<i>Amsinckia tessellata</i>	fiddleneck			X
<i>Cryptantha</i> sp.	catseyes		X	
<i>Cryptantha intermedia</i>	clearwater cryptantha		X	X
<i>Eriodictyon crassifolium</i>	thickleaf yerba santa		X	X
<i>Pholistoma auritum</i>	blue fiestaflower			X
Brassicaceae	Mustard Family			
<i>Brassica nigra</i> *	black mustard		X	X
<i>Brassica rapa</i> *	field mustard			X
<i>Brassica tournefortii</i> *	Saharan mustard		X	X
<i>Hirschfeldia incana</i> *	short-pod mustard		X	X
<i>Lepidium</i> sp. *	peppergrasses		X	
<i>Raphanus sativus</i> *	wild radish		X	X
<i>Sisymbrium orientale</i> *	eastern rocket		X	
Cactaceae	Cactus Family			
<i>Opuntia</i> sp.	prickly pear		X	
<i>Opuntia littoralis</i>	coast prickly pear			X
Caryophyllaceae	Pink Family			
<i>Silene gallica</i> *	small-flower catchfly		X	
Chenopodiaceae	Goosefoot Family			
<i>Atriplex semibaccata</i> *	berry saltbush		X	X
<i>Chenopodium album</i> *	lamb's quarters		X	
<i>Chenopodium murale</i> *	nettle-leaved goosefoot		X	X
<i>Salsola tragus</i> *	Russian thistle		X	X
Cleomaceae	Spider Plant Family			
<i>Peritoma arborea</i>	bladderpod			X
Crassulaceae	Stonecrop Family			
<i>Crassula connata</i>	pygmy-weed		X	X
<i>Crassula ovata</i> *	jade plant		X	X
Cucurbitaceae	Wild Cucumber Family			
<i>Marah macrocarpa</i>	wild cucumber		X	X
Ericaceae	Heath Family			
<i>Xylococcus bicolor</i>	mission manzanita		X	X
Euphorbiaceae	Spurge Family			
<i>Ricinus communis</i> *	castor bean		X	X
Fabaceae	Legume Family			
<i>Acacia obtusifolia</i> *	wattles		X	X

Asparagus asparagoides *Frangula californica*
Schrophularia californica Cyl pro

<i>Acmispon glaber</i> (<i>Lotus scoparius</i>)	deerweed		X	X
<i>Medicago polymorpha</i> *	bur clover		X	
<i>Melilotus indicus</i> *	sourclover		X	X
Geraniaceae	Geranium Family			
<i>Erodium</i> sp. *	stork's-bills		X	
<i>Erodium botrys</i> *	Mediterranean stork's-bills		X	X
<i>Erodium cicutarium</i> *	red stemmed filaree			X
Grossulariaceae	Currant Family			
<i>Ribes californicum</i>	California gooseberry			X
Hydrophyllaceae	Waterleaf Family			
<i>Eucrypta chrysanthemifolia</i>	common eucrypta		X	
Iridaceae	Iris Family			
<i>Iris missouriensis</i>	Western blue flag			X
<i>Iris</i> sp. *	Irises		X	
Juglandaceae	Walnut Family			
<i>Juglans</i> sp.	walnut			X
Lamiaceae	Mint Family			
<i>Salvia mellifera</i>	black sage		X	X
Lythraceae	Loosestrife Family			
<i>Lythrum hyssopifolia</i> *	grass-poly		X	X
Malvaceae	Mallow Family			
<i>Malva multiflora</i>	Cretan tree mallow		X	
<i>Malva parviflora</i> *	cheeseweed mallow			X
Montiaceae	Miner's Lettuce Family			
<i>Claytonia</i> sp.	claytonia			X
<i>Cistanthe grandiflora</i> *	Rock Purslane		X	
Myrsinaceae	Myrsine Family			
<i>Lysimachia arvensis</i> *	scarlet pimpernel		X	X
Myrtaceae	Myrtle Family			
<i>Melaleuca nesophila</i> *	showy honey-myrtle		X	
Nyctaginaceae	Four O'clock Family			
<i>Bougainvillea spectabilis</i> *	great bougainvillea			X
<i>Mirabilis laevis crassifolia</i>	wishbone bush		X	X
Onagraceae 1552	Evening Primrose Family			
<i>Camissoniopsis bistorta</i>	California sun-cup		X	X
<i>Camissoniopsis lewisii</i>	Lewis' Evening-Primrose		X	
<i>Clarkia epilobioides</i>	canyon clarkia		X	
Oxalidaceae	Wood Sorrel Family			
<i>Oxalis pes-caprae</i> *	Bermuda buttercup			X
Papaveraceae	Poppy Family			
<i>Eschscholzia californica</i>	California poppy			X
Phrymaceae	Lopseed Family			
<i>Diplacus aurantiacus</i>	sticky monkeyflower			X
Plantaginaceae	Plantain Family			
<i>Plantago erecta</i>	dot-seed plantain		X	X
Plumbaginaceae	Leadwort Family			

Diplacus brevipes

Antirrhinum nuttallianus

Malacothamnus fasciculatus

Calochortus splendens

<i>Plumbago auriculata</i> *	blue plumbago		X	
Polygonaceae	Buckwheat Family			
<i>Emex spinosa</i> *	devil's thorn		X	
<i>Eriogonum fasciculatum</i>	California buckwheat		X	X
<i>Rumex crispus</i> *	curly dock		X	X
Rhamnaceae	Buckthorn Family			
<i>Adolphia californica</i> <small>CNPS Rank 2B.1</small>	California adolphia	X	X	X
<i>Rhamnus crocea</i>	spiny redberry			X
Rosaceae	Rose Family			
<i>Adenostoma fasciculatum</i>	chamise		X	X
<i>Heteromeles arbutifolia</i>	toyon			X
Rutaceae	Citrus Family			
<i>Citrus latifolia</i> *	lime		X	
Sapindaceae	Soapberry Family			
<i>Cupaniopsis anacardioides</i> *	tuckeroo		X	
Scrophulariaceae	Figwort Family			
<i>Myoporum laetum</i> *	ngaio tree		X	X
<i>Sairocarpus nuttallianus</i>	Nuttall's snapdragon		X	
Solanaceae	Nightshade Family			
<i>Datura wrightii</i>	Jimsonweed		X	X
<i>Nicotiana glauca</i> *	tree tobacco		X	X
<i>Solanum americanum</i>	American black nightshade		X	
<i>Solanum parishii</i>	Parish's nightshade		X	X
Themidaceae	Brodiaea Family			
<i>Dichelostemma capitatum</i>	blue dicks		X	X
Tropaeolaceae	Nasturtium Family			
<i>Tropaeolum majus</i> *	nasturtium		X	X
Ulmaceae	Elm Family			
<i>Ulmus parvifolia</i> *	Chinese elm		X	
Urticaceae	Nettle Family			
<i>Urtica urens</i> *	dwarf nettle		X	X
ANGIOSPERMS (MONOCOTYLEDONS)				
Poaceae	Grass Family			
<i>Arundo donax</i> *	giant reed		X	X
<i>Avena barbata</i> *	slender wild oat		X	X
<i>Brachypodium distachyon</i> *	purple false-brome		X	
<i>Bromus diandrus</i> *	ripgut brome		X	X
<i>Bromus hordeaceus</i> *	common soft-brome		X	
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	red brome		X	X
<i>Cortaderia selloana</i> *	pampas grass		X	X
<i>Distichlis spicata</i>	salt grass		X	X
<i>Ehrharta erecta</i> *	veldt grass		X	
<i>Hordeum murinum</i> *	wall barley		X	X
<i>Festuca perennis</i> * (<i>Lolium multiflorum</i> *)	Italian ryegrass		X	X
<i>Melica imperfecta</i>	little Californis melica		X	

Lamarkia aurea

goldentop

Washingtonia robusta

<i>Stipa lepida</i> (<i>Nassella lepida</i>)	foothill needle grass		X	X
<i>Pennisetum setaceum</i> *	fountain grass		X	X
<i>Phalaris</i> sp. *	canary grass		X	
<i>Polypogon monspeliensis</i> *	rabbitfoot grass		X	
<i>Schismus barbatus</i> *	common Mediterranean grass		X	X
<i>Festuca myuros</i> * (<i>Vulpia myuros</i> *)	rat's-tail fescue		X	X

*Indicates plant species that is not native to California.

California Native Plant Society (CNPS) Rare Plant Ranks:

2B: Plants rare, threatened, or endangered in California; but more common elsewhere in their range.

CNPS Threat Ranks:

0.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)

Sources:

California Natural Diversity Data Base (CDFW 2022)

CNPS Rare and Endangered Plant Inventory (CNPS 2022)



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Rare Plant Survey Form

Date: 6/29/22

Project # _____

Project Name Piraeus RR

Surveyor Names: Greg H., Reena L

Location(s): _____

SURVEY CONDITIONS

	Time	Temp (F)	Wind (mph)	% Cloud Cover
START	0750	70	0-3	25
END	1300	77	3-5	0

* - non-native

PLANT SPECIES OBSERVED

Cent meli *	Pseu lute *	Mesem cryst *
Dein fasc	Bras nigr *	Festuca peren *
Isoc men	Aven barb *	Medicago sp.
Rum cris *	Hedy rhag *	Erigeron canad *
Poly mon *	Brom dian *	Cortaderia jubata *
Brom hord *	Datu wri *	Lactuca serc *
Lyth hys *	Penn seta *	Polygonum avicu *
Sals trag *	Acacia sp. *	Eriog fasc
Carp eda *	Euph mac *	Adolph cal
Fest myo *	Son asp *	Opuntia litt
Hord mur *	Raph set *	Artemesia cal
Atri semi *	Nic gla *	Pistich spi
Acm glab	Araucaria sp. *	Encelia calif
Gleb coro *	Cupaniopsis anacar *	Malacathamnus sp
Erod cicu *	Marah sp. *	Hirsch inca *
Brom madr *	Bacc pilu	Solanum sp.
Sch bar *	Lepidium sp.	Adenos fasci

0834 - 1 male CAGN observed in Development Area



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Rare Plant Survey Form

Date: 6/29

Project Name Piceaus Project # 2022 RR

PLANT SPECIES OBSERVED

<i>Yucca sch</i>	<i>Chenop murale</i> *	<i>Cylindro pofi</i>
<i>Eriodictyon crass</i>	<i>Rice com</i> *	<i>Erioph confert</i>
<i>Stephanomeria</i> willis	<i>Plume ariculata</i> *	<i>Cirsium sp</i> *
<i>Sed mel</i>	<i>Crassula ovata</i> *	<i>Washing rob</i> *
<i>Mirabilis laevis</i>	<i>Pertoma arborea</i>	<i>Phoe carnat</i> *
<i>Cryptantha sp.</i>	<i>Lyssmachia amensis</i>	<i>Euphor lathyris</i> *
<i>Heterostrea grand</i>	<i>Quercus engel</i>	<i>Malva parv</i> *
<i>Pseudo bidle</i>	<i>Ceanothus verru</i>	<i>Dimorph sinuate</i>
<i>Pseudo calif</i>	<i>Pudleya edulis</i>	
<i>Eradium botrys</i> *	<i>Sclag cine</i>	
<i>Hesperom arbutif</i>	<i>Cheun glab y glab</i>	
<i>Haradia squar</i>	<i>Leymus condon</i>	
<i>Rhus int</i>	<i>Chalk dudleya</i>	
<i>Malosma laurina</i>	<i>Pudleya pulva</i>	
<i>Xylo bicolor</i>	<i>Coen vulg</i> *	
<i>Samb nigra</i>	<i>Ribes cal.</i>	
<i>Hypochaeris glabra</i> *	<i>Canu arv.</i> *	
<i>Arundo donax</i> *	<i>Fraxinus und</i>	
<i>Malva</i>	<i>Acmispon</i> <i>american</i>	
<i>Metaleuca nesoph</i> *	<i>Malus ausan</i>	
<i>Alnus parv</i> *	<i>Ambrosia psilo</i>	
<i>Myoporum laetum</i> *	<i>Melica imperfecta</i>	

Kraeus RP Survey #3 8/18/22

G. Hampton and R. Lam

Start: 0700, 70°F, 85% cloud, 0-3 mph

End: 1230, 78°F, 10% cloud, 3-5 mph

Species observed (cont. on other side)

Carp	edulis*	Bac p.	Lepidum sp.
Atrip	semi*	Acn gk	Mes cry*
Salsa	trag*	Brom	hard*
Isoc	men*	Cent	mel*
Eriog	fasc	Slip	barb*
Hedyp	rhaga*	Erod	cicu*
Hard	murin*	Steph	virg
Aven	barb*	Desn	fasic
Brom	madri*	Lythr	hyso*
Datura	Wrig.*	Polypo	mons*
Heter	grand	Rumex	cris*
Eupani	an recard*	Lactuca	serot*
Vico	glab*	Fest	myu*
Gleb	corona*	Pennis	setac*
Brom	dia*	Cort	jubata*
		Eriog	can

Wildlife: COHA, BLPA, ANHU, MODO, MORT
HOFE, NUWO, CAST, WREN, CATO, RTWA

Cottontail rabbit

Scale: 1 square = _____

Write in the Rain

Plant sp. observed (cont.)

Adolph cal	Scum nig
Pseu ben	Rhama croc
Aden fasc	Ely cond
Hir inc *	Rudlex pulv
Cryptantha sp.	Tam ram *
Bra nig *	Ribes croc
Pseu brol	Tribu terres *
Eric bon *	Amb psil
Amar albu *	Foen vulg *
Malos lauma	Cylli adropuntia sp.
Cyn dac *	
Crass ova *	
Rhus inte	
Periton arbo	
Hazardia squa	
Xyloc bicol	
Ceano ver	
Quer eng	
Cirsium sp.	
Ptero drym	
Galium sp.	
Krioph conf	
Hypoxereum laet	
Mim aur	
Rudlexa sp.	

Scale: 1 square =

Scale: 1 s

PIRAEUS POINT PROPERTY PLANT SPECIES OBSERVED

Scientific Name	Common Name	April 2022	June 2022	Aug 2022
VASCULAR PLANTS				
ANGIOSPERMS (DICOTYLEDONS)				
Adoxaceae	Moschatel Family			
<i>Sambucus nigra</i>	black elderberry		X	X
Agavaceae	Century Plant Family			
<i>Yucca schidigera</i>	Mojave yucca	X	X	X
Aizoaceae	Iceplant Family			
<i>Aptenia cordifolia</i> *	baby sun rose	X		
<i>Carpobrotus edulis</i> *	hottentot fig	X	X	X
<i>Mesembryanthemum crystallinum</i> *	crystalline ice plant	X	X	X
Amaranthaceae	Amaranth Family			
<i>Amaranthus albus</i> *	pigweed amaranth			X
Anacardiaceae	Cashew Family			
<i>Malosma laurina</i>	laurel sumac	X	X	X
<i>Rhus integrifolia</i>	lemonade berry		X	X
Apiaceae	Carrot Family			
<i>Conium maculatum</i> *	poison hemlock	X		
<i>Daucus pusillus</i>	American wild carrot	X		
<i>Foeniculum vulgare</i> *	sweet fennel		X	X
<i>Sanicula crassicaulis</i>	gamble weed	X		
Araucariaceae	Araucaria Family			
<i>Araucaria heterophylla</i> *	Norfolk Island pine		X	
Arecaceae	Palm Family			
<i>Phoenix canariensis</i> *	Canary Island date palm		X	
<i>Washingtonia robusta</i> *	Mexican fan palm	X	X	
Asparagaceae	Asparagus Family			
<i>Asparagus asparagoides</i> *	African asparagus fern	X		
Asteraceae	Sunflower Family			
<i>Ambrosia psilostachya</i>	western ragweed		X	X
<i>Artemisia californica</i>	California sagebrush		X	X
<i>Baccharis pilularis</i>	coyote brush	X	X	X
<i>Centaurea melitensis</i> *	totalote	X	X	X
<i>Chaenactis glabriuscula</i> var <i>glabriuscula</i>	common yellow chaenactis	X	X	
<i>Cirsium</i> sp.	thistle		X	X

<i>Cirsium occidentale</i>	cobweb thistle	X		
<i>Deinandra fasciculata</i>	clustered tarweed	X	X	X
<i>Dimorphotheca sinuata</i> *	African daisy		X	
<i>Encelia californica</i>	California brittlebush		X	
<i>Erigeron bonariensis</i> *	flax-leaved horseweed			X
<i>Erigeron canadensis</i>	horseweed	X	X	X
<i>Eriophyllum confertiflorum</i>	golden-yarrow		X	X
<i>Glebionis coronaria</i> *	crown daisy	X	X	X
<i>Hazardia squarrosa</i>	saw-toothed goldenbush		X	X
<i>Hedypnois rhagadioloides</i> *	crete weed	X	X	X
<i>Heterotheca grandiflora</i>	telegraph weed	X	X	X
<i>Hypochaeris glabra</i> *	smooth cat's ear	X	X	
<i>Isocoma menziesii</i> var. <i>menziesii</i>	Menzies' goldenbush	X	X	X
<i>Lactuca serriola</i> *	prickly lettuce	X	X	X
<i>Logfia gallica</i> *	narrowleaf cottonrose	X		
<i>Osmadenia tenella</i>	false rosinweed	X		
<i>Osteospermum monstrosus</i> *	one eye monster	X		
<i>Pseudognaphalium beneolens</i>	cudweed			X
<i>Pseudognaphalium biolettii</i>	two-color rabbit-tobacco	X	X	X
<i>Pseudognaphalium californicum</i>	California everlasting	X	X	
<i>Pseudognaphalium luteoalbum</i> *	Jersey cudweed		X	
<i>Sonchus asper</i> *	spiny sow-thistle		X	
<i>Sonchus oleraceus</i> *	common sow-thistle	X		
<i>Stephanomeria virgata</i> *	rod wire lettuce	X	X	X
<i>Stylocline gnaphaloides</i>	everlasting neststraw	X		
Boraginaceae	Borage Family			
<i>Cryptantha</i> sp.	catseyes		X	X
<i>Cryptantha intermedia</i>	clearwater cryptantha	X		
<i>Eriodictyon crassifolium</i>	thickleaf yerba santa	X	X	X
Brassicaceae	Mustard Family			
<i>Brassica nigra</i> *	black mustard	X	X	X
<i>Hirschfeldia incana</i> *	short-pod mustard	X	X	X
<i>Lepidium</i> sp.*	peppergrasses		X	X
<i>Raphanus sativus</i> *	wild radish	X	X	
<i>Sisymbrium orientale</i> *	eastern rocket	X		
Cactaceae	Cactus Family			
<i>Cylindropuntia prolifera</i>	coastal cholla	X	X	X
<i>Opuntia littoralis</i>	coast prickly pear	X	X	X

Chenopodiaceae	Goosefoot Family			
<i>Atriplex semibaccata</i> *	berry saltbush	X	X	X
<i>Chenopodium murale</i> *	nettle-leaved goosefoot	X	X	
<i>Salsola tragus</i> *	Russian thistle	X	X	X
Cleomaceae	Spider Plant Family			
<i>Peritoma arborea</i>	bladderpod		X	X
Convolvulaceae	Morning-glory family			
<i>Calystegia macrostegia</i>	island false bindweed	X		
Crassulaceae	Stonecrop Family			
<i>Dudleya edulis</i>	fingertips		X	X
<i>Dudleya pulverulenta</i>	chalk dudleya	X	X	X
<i>Crassula connata</i>	pygmy-weed	X		
<i>Crassula ovata</i> *	jade plant	X	X	X
Cucurbitaceae	Wild Cucumber Family			
<i>Marah</i> sp.	cucumber		X	X
Ericaceae	Heath Family			
<i>Xylococcus bicolor</i>	mission manzanita	X	X	X
Euphorbiaceae	Spurge Family			
<i>Euphorbia lathyris</i> *	compass plant		X	
<i>Euphorbia maculata</i> *	spotted spurge		X	
<i>Euphorbia peplus</i> *	petty spurge	X		
<i>Ricinus communis</i> *	castor bean	X	X	X
Fabaceae	Legume Family			
<i>Acacia obtusifolia</i> *	wattles	X	X	
<i>Acacia pycnantha</i> *	golden wattle	X		
<i>Acmispon americanus</i>	American bird's foot trefoil		X	
<i>Acmispon glaber</i>	deerweed	X	X	X
<i>Medicago polymorpha</i> *	bur clover	X	X	
<i>Melilotus indicus</i> *	annual sweetclover	X		
Fagaceae	Oak Family			
<i>Quercus engelmannii</i> <small>CNPS Rank 4.2</small>	Engelmann oak		X	X
Geraniaceae	Geranium Family			
<i>Erodium botrys</i> *	Mediterranean stork's-bills	X	X	
<i>Erodium cicutarium</i> *	red-stemmed filaree	X	X	X
Grossulariaceae	Currant Family			
<i>Ribes californicum</i>	California gooseberry	X	X	X
Juglandaceae	Walnut Family			
<i>Juglans hindsii</i>	walnut		X	

Liliaceae	Lily Family			
<i>Calochortus splendens</i>	splendid mariposa lily	X		
Lamiaceae	Mint Family			
<i>Salvia mellifera</i>	black sage	X	X	X
Lythraceae	Loosestrife Family			
<i>Lythrum hyssopifolia</i> *	grass-poly	X	X	X
Malvaceae	Mallow Family			
<i>Malacothamnus</i> sp.	mallow		X	
<i>Malacothamnus fasciculatus</i>	chaparral bush mallow	X		
<i>Malva parviflora</i> *	cheeseweed mallow	X	X	
Myrsinaceae	Myrsine Family			
<i>Lysimachia arvensis</i> *	scarlet pimpernel	X	X	
Myrtaceae	Myrtle Family			
<i>Melaleuca nesophila</i> *	showy honey-myrtle	X	X	
Nyctaginaceae	Four O'clock Family			
<i>Bougainvillea spectabilis</i> *	great bougainvillea	X		
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	wishbone bush	X	X	
Oleaceae	Olive Family			
<i>Fraxinus uhdei</i> *	Shamel ash		X	
Onagraceae	Evening Primrose Family			
<i>Camissoniopsis bistorta</i>	California sun-cup	X		
Phrymaceae	Lopseed Family			
<i>Diplacus aurantiacus</i>	sticky monkeyflower		X	X
<i>Diplacus brevipes</i>	wide throated yellow monkeyflower	X		
Plantaginaceae	Plantain Family			
<i>Antirrhinum nuttallianum</i>	island snapdragon	X		
<i>Plantago erecta</i>	California plantain			X
Plumbaginaceae	Leadwort Family			
<i>Plumbago auriculata</i> *	blue plumbago	X		
Polygonaceae	Buckwheat Family			
<i>Eriogonum fasciculatum</i>	California buckwheat		X	X
<i>Polygonum aviculare</i> *	prostrate knotweed		X	
<i>Pterostegia drymarioides</i>	fairy mist			X
<i>Rumex crispus</i> *	curly dock	X	X	X
<i>Rumex spinosa</i> *	devil's thorn	X		
Rhamnaceae	Buckthorn Family			
<i>Adolphia californica</i> ^{CNPS Rank 2B.1}	California adolphia	X	X	X

<i>Ceanothus verrucosus</i> <small>CNPS Rank 2B.2</small>	wart-stemmed ceanothus		X	X
<i>Frangula californica</i>	California coffeeberry	X		
<i>Rhamnus crocea</i>	redberry buckthorn		X	X
Rosaceae	Rose Family			
<i>Adenostoma fasciculatum</i>	chamise		X	X
<i>Heteromeles arbutifolia</i>	toyon		X	X
Rubiaceae	Madder Family			
<i>Galium</i> sp.	bedstraw			X
Sapindaceae	Soapberry Family			
<i>Cupaniopsis anacardioides</i> *	tuckeroo		X	X
Selaginellaceae	Spike-moss Family			
<i>Selaginella cinerascens</i> <small>CNPS Rank 4.1</small>	ashy spike moss		X	
Scrophulariaceae	Figwort Family			
<i>Myoporum laetum</i> *	Ngaio tree		X	X
<i>Scrophularia californica</i>	California bee plant	X		
Solanaceae	Nightshade Family			
<i>Datura wrightii</i>	jimsonweed	X	X	X
<i>Nicotiana glauca</i> *	tree tobacco	X	X	X
<i>Solanum</i> sp.	nightshade		X	
Tamaricaceae	Tamarisk Family			
<i>Tamarix ramosissima</i> *	saltcedar			X
Themidaceae	Brodiaea Family			
<i>Dichelostemma capitatum</i>	blue dicks	X		
Ulmaceae	Elm Family			
<i>Ulmus parvifolia</i> *	Chinese elm		X	
Zygophyllaceae	Caltrop Family			
<i>Tribulus terrestris</i> *	puncture vine			X
ANGIOSPERMS (MONOCOTYLEDONS)				
Poaceae	Grass Family			
<i>Arundo donax</i> *	giant reed	X	X	X
<i>Avena barbata</i> *	slender wild oat	X	X	X
<i>Brachypodium distachyon</i> *	purple false-brome	X		
<i>Bromus diandrus</i> *	ripgut brome	X	X	X
<i>Bromus hordeaceus</i> *	common soft-brome	X	X	X
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	red brome	X	X	X
<i>Cortaderia jubata</i> *	purple pampas grass		X	X
<i>Cortaderia selloana</i> *	pampas grass	X	X	
<i>Cynodon dactylon</i> *	Bermuda grass			X

<i>Distichlis spicata</i>	salt grass	X	X	X
<i>Elymus condensatus</i>	giant wild rye	X	X	X
<i>Festuca myuros</i> *	rat's-tail fescue	X	X	X
<i>Festuca perennis</i> *	Italian ryegrass	X	X	X
<i>Hordeum murinum</i> *	wall barley	X	X	X
<i>Lamarckia aurea</i> *	goldentop grass	X		
<i>Melica imperfecta</i>	little California melica	X	X	
<i>Pennisetum setaceum</i> *	fountain grass	X	X	X
<i>Polypogon monspeliensis</i> *	rabbitfoot grass	X	X	X
<i>Schismus barbatus</i> *	common Mediterranean grass	X	X	X
<i>Stipa lepida</i>	foothill needle grass	X		
California Native Plant Society (CNPS) Rare Plant Ranks: 2B: Plants rare, threatened, or endangered in California and more common elsewhere. 4: Plants of limited distribution; a watch list.				
CNPS Threat Ranks: 0.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat) 0.2 Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)				
* Not native to California. Sources: CNPS Rare and Endangered Plant Inventory (CNPS 2022)				

APPENDIX D

Representative Site Photographs



Photo 1. Diegan Coastal Sage Scrub/California Sagebrush – California Buckwheat Scrub in southern portion of Development Area.



Photo 2. Southern Mixed Chaparral/Chamise – Mission Manzanita Chaparral in northern portion of Development Area.



Photo 3. Diegan Coastal Sage Scrub/Brittle Bush Scrub (foreground) and Diegan Coastal Sage Scrub/Lemonade Berry Scrub (background) in northern portion of Preserve Area.



Photo 4. Coastal Scrub/Deerweed Scrub documented in the middle portion of the Development Area.



Photo 5. Nonnative Riparian/Giant Reed Break in middle portion of Preserve Area.



Photo 6. Nonnative Grassland/Annual Brome Grassland in northern portion of the Preserve Area.



Photo 7. California adolphia documented in the southern portion of the Development Area.



Photo 8. Wart-stemmed ceanothus documented in the southern portion of the Preserve Area.



Photo 9. Engelmann oak documented in the southern portion of the Preserve Area.

Coastal California Gnatcatcher Focused Survey Report

**Results of the 2022 Focused Coastal California
Gnatcatcher Surveys
for the
Piraeus Point Project**

San Diego County, California

Prepared For:

Lennar Homes of California, LLC
16465 Via Esprillo, Suite 150
San Diego, CA 92127

Prepared By:

 **ECORP Consulting, Inc.**
ENVIRONMENTAL CONSULTANTS
3838 Camino del Rio North, Suite 370
San Diego, CA 92108

**July 2022
(Revised October 2022)**

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Appendix B – Wildlife Species List
Appendix C – CNDDDB Forms

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
APN	Assessor's Parcel Number
CAGN	California gnatcatcher
CDFW	California Department of Fish and Wildlife
SSC	Species of Special Concern
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WL	Watch List