

1.0 INTRODUCTION

Lennar Homes (Client) contracted ECORP Consulting, Inc. to conduct focused surveys for the coastal California gnatcatcher (CAGN; *Polioptila californica californica*) within the Piraeus property and 500-foot buffer (hereafter referred to as Survey Area) during the 2022 breeding season. The property 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 (FMZ). 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). Together, the Development Area and the onsite Preserve Area are the Proposed Project (Project) or Project Area. Focused surveys were conducted to identify the distribution and abundance of CAGN within and adjacent to the Survey Area. A 15-day notification letter was sent via email on February 15, 2022 to notify the U.S. Fish and Wildlife Service (USFWS) of the start of protocol surveys for the Project. This report summarizes the results of the six breeding-season focused surveys for CAGN conducted at the property.

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 (I-5) between Leucadia Boulevard and La Costa Avenue. The Survey Area includes the Development Area, onsite Preserve Area within the northern portion of the southern parcel (APN 254-144-01-00), and offsite adjacent Preserve Area (APN 216-110-35-00). 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 COASTAL CALIFORNIA GNATCATCHER

2.1 Life History

The CAGN was listed as threatened by the federal government in March 1993 (USFWS 1993) and is also currently a California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC; CDFW 2022). This small gray-blue non-migratory bird is endemic to coastal Southern California. Its known geographic range includes portions of Ventura, Los Angeles, San Bernardino, Riverside, Orange, and San Diego counties and extends south into northwestern Baja California. This species is associated with low-growing, drought-tolerant sage scrub habitat. Dominant plant types within these communities include California sagebrush (*Artemisia californica*), buckwheats (*Eriogonum fasciculatum* and *E. cinereum*), encelias (*Encelia californica* and *E. farinosa*), and various sages (*Salvia mellifera*, *S. apiana*, and *S. leucophylla*). CAGNs have also been documented within chaparral, grassland, and riparian habitats, which occur in proximity to sage scrub, and are used for dispersal and foraging (Atwood et al. 1998; Campbell et al. 1998).

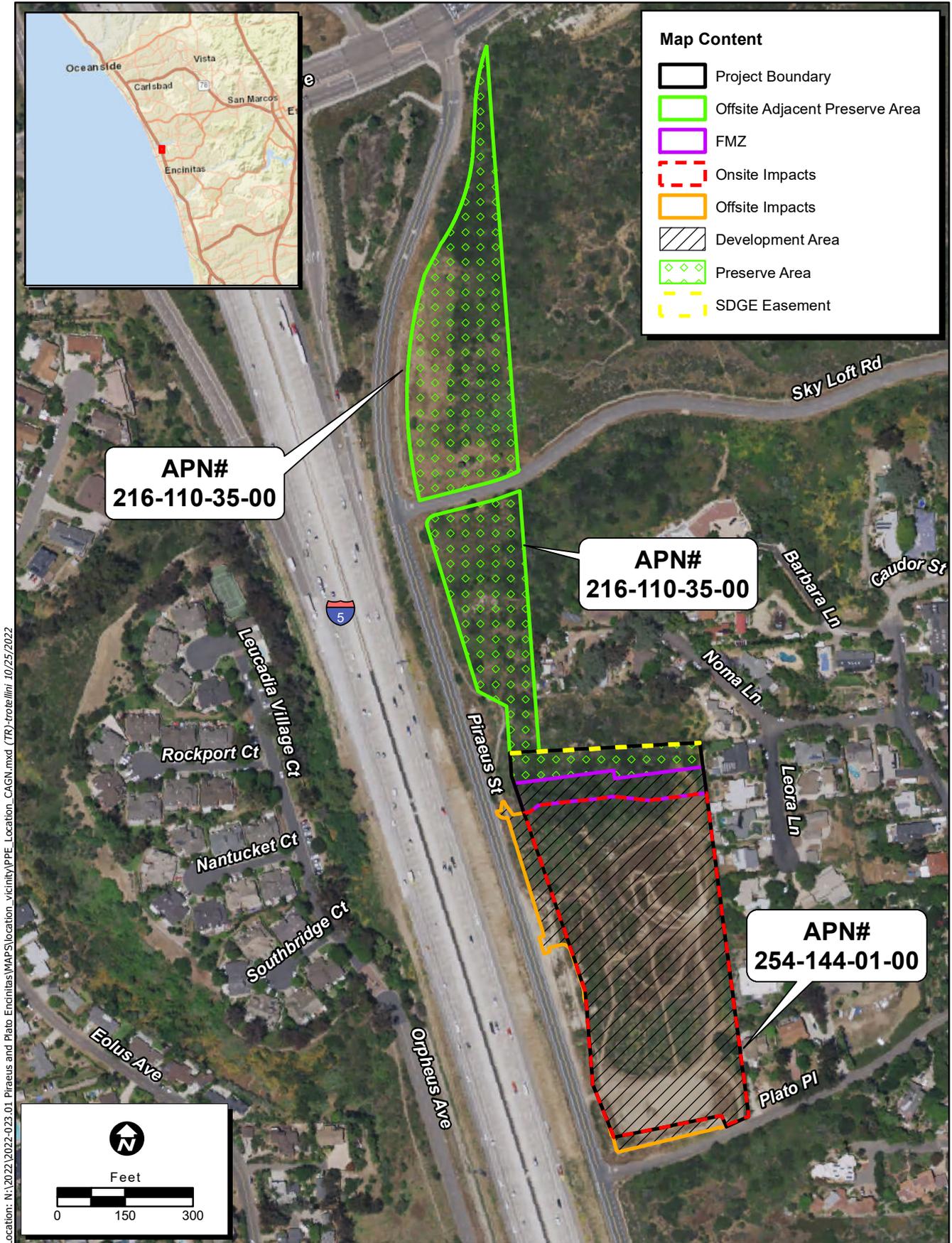
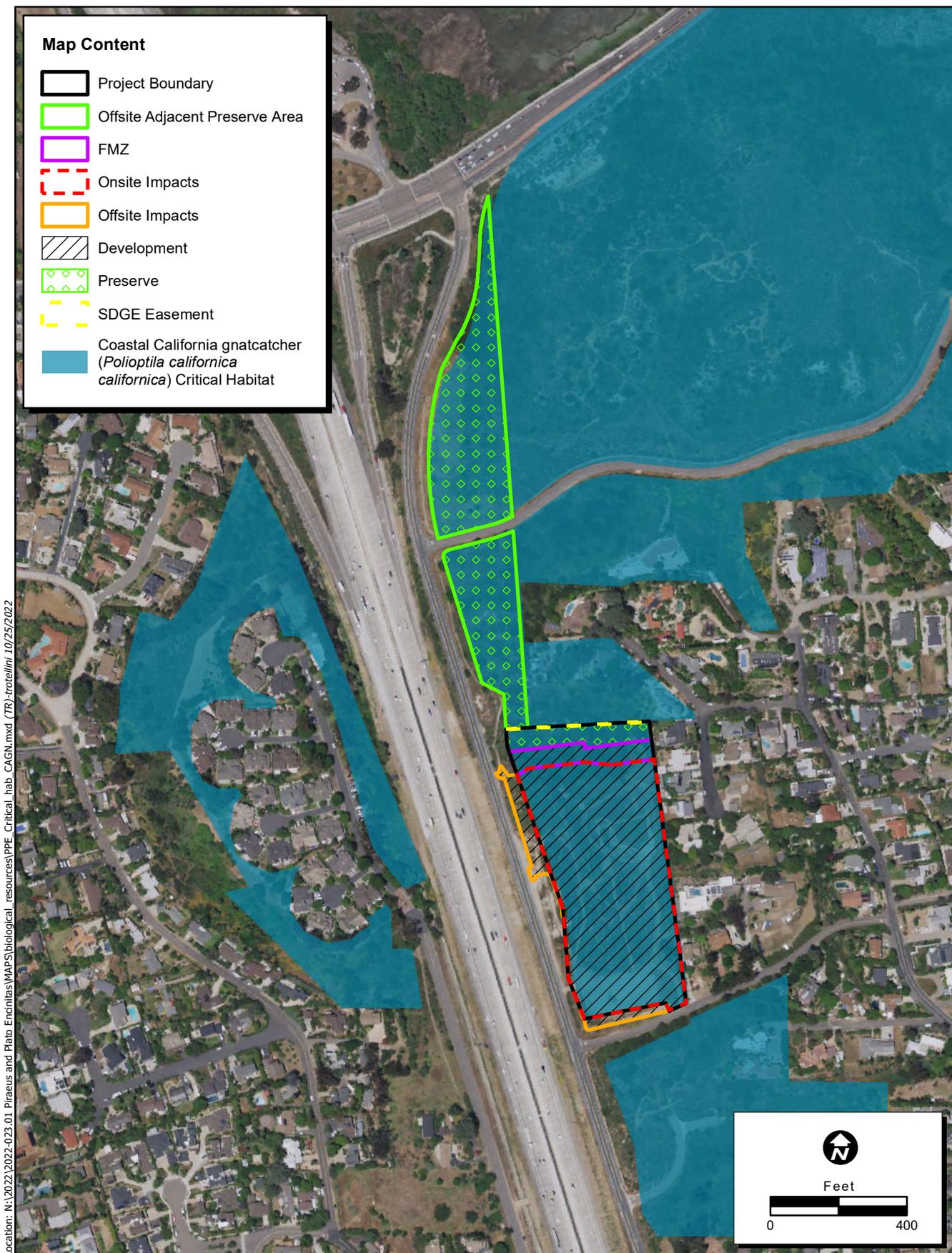


Figure 1. Project Vicinity and Location



The peak breeding season of the CAGN extends from late February through July, with the peak of nest initiations occurring from mid-March through mid-May. Nests are often located in California sagebrush about 3 feet (1 meter) above the ground with an average clutch size of four eggs. The incubation and nestling periods encompass about 14 and 16 days, respectively. Both sexes participate in all phases of the nesting cycle. Contributing factors in the decline of this species include overly frequent fire cycles, nonnative plant invasions, brown-headed cowbird (*Molothrus ater*) nest parasitism, predation, and chronic reduction in habitat carrying capacity due to development (Mock 2004).

2.2 Critical Habitat

Critical habitat was designated by the USFWS in 2000 (USFWS 2000) and was re-designated in 2007 (USFWS 2007). The USFWS has designated 13 critical habitat units that are essential to the recovery of the CAGN (USFWS 2007). The entirety of the Survey Area is within Unit 3 of USFWS-designated critical habitat for the federally-listed coastal CAGN (USFWS 2007) (Figure 2).

3.0 SURVEY METHODOLOGY

3.1 Habitat Assessment

Biological studies, including a desktop literature review, biological reconnaissance field survey, and vegetation mapping were conducted in March 2022. Information collected during these studies were used to determine which portions of the Survey Area would require focused gnatcatcher surveys. Although not mapped, the same vegetation communities extended beyond the property limits and could be found within the survey buffer. With the exception of areas west of I-5 and north of La Costa Avenue, all accessible areas containing suitable breeding or foraging habitats were included in the focused surveys.

3.2 Coastal California Gnatcatcher Focused Surveys

Focused surveys were conducted throughout the Survey Area by USFWS-permitted 10(a)(1)(A) CAGN biologists. Focused gnatcatcher surveys were conducted in accordance with the *1997 Coastal California Gnatcatcher Presence/Absence Survey Guidelines* published by the USFWS (1997). Surveys were conducted between sunrise and 1200, when weather conditions were favorable (i.e., no excessive fog, wind, rain, cold [temperatures at or below 45°F], or heat [at or exceeding 100°F]). No more than 80 acres of suitable habitat were surveyed by each biologist per day. Surveys consisted of slowly walking various survey routes and playing a taped recording of gnatcatcher vocalizations while scanning all potential habitat with binoculars for the presence of gnatcatchers and listening for vocal responses to the recording. Inaccessible areas (i.e. fenced and private property, steep or unstable terrain) were surveyed from the public right-of-way or closest accessible area. Areas west of I-5 and north of La Costa Avenue were excluded. The locations of CAGN pairs and/or individuals within the Survey Area were recorded using a Global Positioning System-enabled smart device (i.e. smartphone, iPad) outfitted with the ArcGIS Collector® application. Field notes regarding the age, sex, behavior, and activity were recorded and maintained to determine the use area (territory) and (likely) repeat individuals associated with each territory over the course of the surveys. CAGN individuals or pairs that were detected outside of the survey area that had potential to nest or forage in the survey area, were also documented. For

each focused survey, the general weather conditions, date, and start and end times were documented on data sheets, included as Appendix A. Additionally, a list of all wildlife observed during the surveys is included as Appendix B.

4.0 RESULTS

4.1 Habitat Assessment

The habitat and vegetation communities were assessed during Survey 1. Habitats within the Project Area considered suitable for the CAGN included California Brittle Bush Scrub (*Encelia californica* Shrubland Alliance), California Sagebrush-California Buckwheat Scrub (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance), Deerweed Scrub (*Lotus scoparius* Shrubland Alliance), as well as the edges of Chamise Chaparral (*Adenostoma fasciculatum* Shrubland Alliance) and Lemonade Berry Scrub (*Rhus integrifolia* Shrubland Alliance).

4.2 Coastal California Gnatcatcher Focused Surveys

Focused surveys were conducted by federal 10(a)(1)(A)-permitted ECORP biologists Christine Tischer (TE-053379-5) and Shannan Shaffer (TE-67555A-2) between March 17 and April 28, 2022. Surveys officially concluded at noon, however observations of gnatcatcher activity extended beyond noon during Surveys 1 and 2. ECORP biologists, Taylor Dee, Caroline Garcia, and Christina Torres provided supervised assistance. Table 1 summarizes the conditions during each of the survey days.

Survey #	2022 Date	Surveyors *	Time		Temperature (°F)		% Cloud Cover		Wind Speed (mph)	
			Start	End	Start	End	Start	End	Start	End
1	March 18	CLT, TD	0700	1252	48.7	72.1	0	10	1-2	1-3
2	March 24	CLT, TD	0705	1215	62.4	72.1	2	<15	1-2	1-4
3	April 7	CLT, CT	0625	1200	58	82	0/(fog)	0	0-2	0-5
4	April 14	SS, CG	0650	1200	51.6	64	0	0	0-1	3-5
5	April 21	SS, CT	0630	1200	54.1	70	0	20	0-1	4-7
6	April 28	SS	0635	1155	61.8	71.2	100	20	1-3	1-3

* CLT: Christine Tischer, SS: Shannan Shaffer, TD: Taylor Dee, CT: Christina Torres, CG: Caroline Garcia

A total of five territories (four confirmed pairs and 1 territorial male), were identified during the protocol surveys, two of which occur within the proposed Development Area (Figure 3). A summary of the CAGN observations for each territory is provided below.

4.2.1 CAGN Territory 1

During Survey 1, one male CAGN was heard and seen in the central portion of the territory and a second CAGN was heard downslope and to the west of the male's location. During that same survey, a male was heard in the Chamise Chaparral ravine to the northeast and a female was observed within the Deerweed Scrub at the top of the slope. Because the male and female did not seem to be interacting, it was unknown if this was one or two pairs. Based on detections and lack of detections during subsequent surveys, it was determined that this was one pair that primarily utilizes the Deerweed Scrub and California Sagebrush-California Buckwheat Scrub within the Development Area.

4.2.2 CAGN Territory 2

This pair was consistently observed at the east extent of the 500-foot survey buffer of the offsite adjacent Preserve Area that occurs north of Sky Loft Road. Four different nest attempts were documented over the course of the surveys, including one attempt within 25 feet of Sky Loft Road and beyond the 500-foot survey buffer. Territory 2 is completely within the 500-foot buffer and buffered from the proposed Development Area by hilly terrain that occurs within the offsite adjacent Preserve Area and onsite Preserve Area south of Sky Loft Road.

4.2.3 CAGN Territory 3

Territory 3 was not detected until the second survey (on March 24), at which time the pair was observed in the nest-building phase. At least one of the pair's individuals was easily detectable without the use of playback throughout the remainder of the surveys, and based on behavior, it appeared as though the nest was likely to successfully fledge young. Except for marginal foraging habitat and perching locations provided by the disturbed habitat (i.e. Annual Brome Grassland and Giant Reed Break) within the offsite adjacent Preserve Area north of Sky Loft Road, the bulk of Territory 3 occurs within the survey buffer.

4.2.4 CAGN Territory 4

Territory 4 was not detected until the second survey (on March 24), at which time the pair was observed in the nest building phase. This nest was likely abandoned before eggs were laid or predated based on observations during subsequent surveys, but the bulk of this pair's territory is within the California Sagebrush-California Buckwheat Scrub and Deerweed Scrub in the southern portion of the proposed Development Area. The territory extends south of Plato Place based on one long-distance flight directly observed during Survey 2, but this pair was not detected south of Plato Place at any other time.

4.2.5 CAGN Territory 5

Territory 5 had limited detections and was not detected until Survey 4 (on April 14). One male CAGN was detected during Surveys 4 and 5 and a brief vocalization was heard during the sixth and final survey. This territory occurs on the west-facing slopes east of Piraeus Street and is susceptible to loud traffic from I-5 and, to a much lesser degree, road noise from the frontage road (Piraeus Street). Due to the difficulty in detecting gnatcatcher vocalizations in this area, it is possible that a breeding pair is present, but was not detectable by the surveyors. Territory 5 is located entirely within the offsite adjacent Preserve Area south of Sky Loft Road and is buffered from the proposed Development Area by the very steep terrain that occurs within the FMZ and onsite Preserve Area.

4.3 Other Sensitive Wildlife

The target species for this survey effort was the coastal California gnatcatcher; however, two special-status wildlife species (orange-throated whiptail [*Aspidoscelis hyperythra*] and monarch butterfly [*Danaus plexippus*]) were detected during the field efforts. One orange-throated whiptail, a CDFW Watch List Species (WL, CDFW 2022), was noted within the 500-foot survey buffer north of Sky Loft Road (Figure 3). One individual monarch, a federal candidate for listing (CDFW 2022), was noted during each of Survey 1 and Survey 3, but a location is not shown for this species as it was only observed flying through the site and not egg-laying or part of an overwintering colony. Locations of special-status species were submitted to the CDFW California Natural Diversity Data Base (CNDDDB) via their online field form (Appendix C).

5.0 SUMMARY

A total of five CAGN territories were mapped within the Survey Area over the course of six weekly surveys conducted during the 2022 breeding season. Two pairs of CAGN (Territories 1 and 4) are located within the proposed Development Area of the Project and one additional territorial male (Territory 5) is located within the offsite adjacent Preserve Area south of Sky Loft Road. Two CAGN territories (breeding pairs in Territories 2 and 3) occur within the 500-foot survey buffer primarily east of the offsite adjacent Preserve Area north of Sky Loft Road; the western portion of Territory 3 slightly overlaps the offsite adjacent Preserve Area. The entirety of the Survey Area is within Unit 3 of USFWS-designated critical habitat for the federally-listed coastal CAGN (USFWS 2007).

6.0 CERTIFICATION STATEMENT

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

Signature:	 _____ Christine Tischer, TE-053379-5	Date:	_____ July 1, 2022/October 27, 2022
Signature:	 _____ Shannan Shaffer, TE-67555A-2	Date:	_____ July 1, 2022/October 27, 2022

7.0 LITERATURE CITED

- Atwood, J. L., D. Bontrager, and A. Gorospe. 1998. Use of refugia by California Gnatcatchers displaced by habitat loss. *Western Birds* 29:406-412.
- Campbell, K., R. Erickson, W. Haas, and M. Patten. 1998. California gnatcatcher use of habitats other than coastal sage scrub: Conservation and management implications. *Western Birds* 29:421-433.
- California Department of Fish and Wildlife (CDFW). 2022. Natural Diversity Database, Special Animals List. Periodic publication. April 2022.
- Mock, P. 2004. California Gnatcatcher (*Polioptila californica*). In the Coastal Scrub and Chaparral Bird Conservation Plan: a strategy for protecting and managing coastal scrub and chaparral habitats and associated birds in California. California Partners in Flight.
<http://www.prbo.org/calpif/htmldocs/scrub>
- U.S. Fish and Wildlife (USFWS). 2007. Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*); Final Rule. December 19.
- _____. 2000. Final Determination of Critical Habitat for the Coastal California Gnatcatcher; Final Rule. October 24.
- _____. 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines. February 28.
- _____. 1993 Endangered and Threatened Wildlife and Plants; Rule to List the Coastal California Gnatcatcher as Threatened; Final Rule. Federal Register 58:16742-16757.

LIST OF APPENDICES

Appendix A – CAGN Survey Data Sheets

Appendix B – Wildlife Species List

Appendix C – CNDDDB Forms

APPENDIX A

CAGN Survey Data Sheets

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Christine Tischer (TE-053379-5) with Taylor Dee

Date: 03/17/2022 Survey # 1

CAGN observations and notes:

0727-0730 – CAGN heard; male seen in CA buckwheat/Artemisia/Encelia scrub at top of hill (point collected in Field Maps). 1 additional CAGN individual heard (not seen) downslope and to west. Designated as Pair CAGN 1 in Field Maps.

0801-0900 – male heard making harsh calls from chamise to north and preening; female seen in tree tobacco but does not seem to be responding to male or interacting with him (possibly 2 pairs, but could just be CAGN 1 pair).

1224-1252 Pair observed east of property near 500' survey buffer. Male carrying fluff to same location near lemonadeberry with very aggressive scrub jays (marked as CAGN-2A nest in Field Maps).

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0700	48.7	0	1-2
End	1200 (observed CAGN until 1252)	72.1	10	1-3

Wildlife Species Observed:

AMCR, CALT, WREN, HOFI, HOWR, MODO, BLPH, ANHU, NOMO, BEWR, BUSH, ALHU, CAKI, YRWA, CASJ, yellow-faced bumble bee, COHA, RTHA, GBHE (flyover), alligator lizard, COYE, SPTO, cabbage white, funereal duskywing, painted lady, monarch (1), silvery blue, WCSP, gull sp. (flyover), CATH, OCWA, ECDO, NUWO, CAGN

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Christine Tischer (TE-053379-5) with Taylor Dee

Date: 03/24/2022

Survey # 2

CAGN observations and notes:

0808 New pair detected west of CAGN 3 within 500' buffer making multiple trips to same clump of shrubs at base of slope (marked as CAGN-3A nest in Field Maps).

0838 CAGN 2 pair seen in same canyon. Observed to be disassembling nest in shrub southeast of CAGN-2A nest (marked as nest CAGN-2B in Field Maps) and taking material to new nest location outside 500' buffer and only 25' north of Sky Loft Road (marked as CAGN-2C nest in Field Maps).

1045 CAGN 1 pair observed in between tree tobacco and freeway in lower bowl area. No gnatcatchers observed to north or northeast where observed last week, so assumed to be one pair using the entire area.

1115 New pair (CAGN 4) detected in southern portion of proposed development. Male observed carrying nesting material (photo) to Artemisia shrub in disturbed portion of scrub habitat. Nest is 98% complete. Pair seen making long distance flight to south side of Plato Road.

12:02 Potential new pair south of Project along Christine Place, but occurs on private property.

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0705	62.4	2	1-2
End	1215	72.1	<15	1-4

Wildlife Species Observed:

CALT, BUSH, WREN, SPTO, CASJ, ALHU, SOSP, RTHA, MODO, YRWA, LEGO, WCSP, CATH, BHGR, HETH, RWBL, desert cottontail, ANHU, MALL (flyover), CAQU, NOMO, HOFI, COHA, CA ground squirrel, COYE, BHGR, RWBL, CAGN

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Christine Tischer (TE-053379-5) with Christina Torres

Date: 04/07/2022 Survey # 3

CAGN observations and notes:

0753 vocalization heard within CAGN 4 territory at top of slope northeast of nest. Pair observed foraging in same area at 0758. No approaches to CAGN-4A nest shrub and no nesting behavior observed.

0952 male at CAGN 3 territory responded to taped playback played from sidewalk and he came from direction of nest. Not vocal but patrolled perimeter. Female assumed to be on nest – quickly moved on from area.

1000 No activity at CAGN-2C nest shrub. Heard CAGN in canyon but not seen.

1046-1100 Potential new pair heard/seen north of CAGN 2 canyon covering a very large area within survey buffer and very territorial. Marked extent of territory in Field Maps.

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0625	58	0% with patchy fog	0-2
End	1200	82	0	0-5

Wildlife Species Observed:

CALT, MODO, HOFI, RTHA, ANHU, SBMU, WREN, SOSP, CORA, LEGO, WCSP, CAKI, yellow-faced bumble bee, NOMO, HOOR, OCWA, CAQU, GBHE (flyover), CASJ, ALHU, SPTO, orange-throated whiptail, BEWR, COYE, monarch, mourning cloak, Sara orangetip, CATH, AMCR, HOWR, BUSH, honey bee, COHA, NUWO, funereal duskywing, CAGN

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Shannan Shaffer (TE-67555A-2) with Caroline

Garcia

Date: 04/14/2022

Survey # 4

CAGN observations and notes:

0712 brief CAGN vocalization heard along Christine Pl at south end of survey buffer, but no observation (inaccessible).

0800 CAGN-4A nest in Artemisia californica appears to have been predated (i.e. damage to nest). No CAGN observed at or near nest site.

0808 Male CAGN heard and seen northwest of CAGN-4A nest (marked point in Field Maps).

0911 Male CAGN observed within CAGN 1 territory – no vocalization; flew south.

0950 New territory (CAGN-5). Male observed and vocalizing in response to broadcast call played on west side of middle parcel, south of Sky Loft Road; observed to have flown in from north but not seen which way he departed. High I-5 traffic noise.

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0650	51.6	0	0-1
End	1200	64	0	3-5

Wildlife Species Observed:

SPTO, CATH, COYE, ANHU, NOMO, ALHU, HOFI, CALT, BUSH, RTHA, MODO, ROPI, WREN, LEGO, GREG (flyover), SOSP, CAKI, CASJ, CA ground squirrel, CAGN

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Shannan Shaffer (TE-67555A-2) with Christina Torres

Date: 04/21/2022 Survey # 5

CAGN observations and notes:

0800 Briefly observed CAGN male in CAGN 4 territory in sage. No broadcast call played and CAGN did not vocalize. Point recorded in Field Maps.

0909 CAGN 5 male heard vocalizing and observed in CSS. No female observed, but very loud traffic so distant vocalizations not likely to be detected. Point recorded in Field Maps.

1011 CAGN 3 pair observed making several trips to CAGN-3A nest location with small food items.

1020 Observed male CAGN 3 and male CAGN 2 at territory edge (no new locations added).

1119 Observed CAGN 2 pair carrying nesting material to Artemisia californica; female observed adjusting material in nest (marked as CAGN-2D in Field Maps)

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0630	54.1	0	0-1
End	1200	70	20	4-7

Wildlife Species Observed:

NOMO, HOFI, BUSH, CALT, HOOR, MODO, RUHU, ANHU, RTHA, CASJ, ALHU, CORA, WREN, SPTO, HOFI, LEGO, CAGN

General Habitat Description: coastal sage scrub, chaparral, and grassland communities

ECORP Consulting, Inc
California Gnatcatcher Survey Form

Project Name: Piraeus Point

Surveyor Name: Shannan Shaffer (TE-67555A-2)

Date: 04/28/2022

Survey # 6

CAGN observations and notes:

0752 CAGN male observed and heard in *Artemisia californica* in within CAGN 1 before flying south southwest along upper slope (location marked in Field Maps).

0813 Male CAGN heard then observed calling/foraging in CSS in CAGN 4 territory. Female briefly observed nearby moving through low vegetation (location marked in Field Maps).

0948 CAGN heard calling from slope within CAGN 5 territory upon approach (location marked in Field Maps). Did not continue calling and was not observed.

1008 CAGN heard calling from slope near CAGN-3A nest location. Did not observed and did not approach area due to nest.

1016 Male CAGN observed sitting on nest CAGN-2D. Female observed foraging nearby.

	Time	Temp (°F)	Cloud Cover (%)	Wind Speed (avg. mph)
Start	0635	61.8	100	1-3
End	1155	71.2	20	1-3

Wildlife Species Observed:

CALT, BUSH, HOFI, CASJ, ALHU, MODO, LEGO, ANHU, COYE, RTHA, NOMO, WREN, SPTO, AMCR, SBMU, HOOR, BLPH, alligator lizard, CA ground squirrel, western fence lizard, TUVU, CAGN

APPENDIX B

Wildlife Species List

Attachment B

Piraeus Point Property

Wildlife Species Observed

Scientific Name	Common Name
INSECTS	
Apidae	Bees
<i>Apis mellifera</i>	western honey bee
<i>Bombus vosnesenskii</i>	yellow-faced bumble bee
Pieridae	Orange-Tips, Whites and Sulfurs
<i>Anthocharis sara</i>	Sara orangetip
<i>Pieris rapae</i>	cabbage white
Lycaenidae	Blues, Hairstreaks, & Gossamer Wings
<i>Glaucopsyche lygdamus</i>	silvery blue
Nymphalidae	Brush-footed Butterflies
<i>Danaus plexippus****</i>	monarch butterfly
<i>Nymphalis antiopa</i>	mourning cloak
<i>Vanessa cardui</i>	painter lady
Hesperiidae	Skippers
<i>Erynnis funeralis</i>	funereal duskywing
REPTILES	
Anguillidae	Alligator Lizards
<i>Elgaria multicarinata</i>	southern alligator lizard
Phrynosomatidae	Spiny Lizards
<i>Sceloporus occidentalis</i>	western fence lizard
Teiidae	Whiptails & Relatives
<i>Aspidoscelis hyperthra**</i>	orange-throated whiptail
BIRDS	
Anatidae	Geese, Ducks, & Swans
<i>Anas platyrhynchos</i>	mallard
Ardeidae	Hérons and Egrets
<i>Ardea alba</i>	great egret
<i>Ardea herodias</i>	great blue heron
Accipitridae	Hawks, Kites, & Eagles
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo jamaicensis</i>	red-tailed hawk
Aegithalidae	Bushtits

Scientific Name	Common Name
<i>Psaltriparus minimus</i>	bushtit
Cardinalidae	Cardinals & Allies
<i>Pheucticus melanocephalus</i>	black-headed grosbeak
Cathartidae	Vultures
<i>Cathartes aura</i>	turkey vulture
Columbidae	Pigeons and Doves
<i>Columba livia*</i>	rock pigeon
<i>Streptopelia decaocto*</i>	Eurasian collared-dove
<i>Zenaida macroura</i>	mourning dove
Corvidae	Jays and Crows
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
<i>Aphelocoma californica</i>	California scrub-jay
Estrildidae	Waxbills & Allies
<i>Lonchura punctulate*</i>	scaly-breasted munia
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	house finch
<i>Spinus psaltria</i>	lesser goldfinch
Icteridae	Blackbirds & Orioles
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Icterus cucullatus</i>	hooded oriole
Laridae	Gulls, Terns, & Skimmers
<i>Larus sp.</i>	gull sp.
Mimidae	Mockingbirds and Thrashers
<i>Mimus polyglottos</i>	northern mockingbird
<i>Toxostoma redivivum</i>	California thrasher
Odontophoridae	New World Quail
<i>Callipepla californica</i>	California quail
Parulidae	Wood Warblers
<i>Geothlypis trichas</i>	common yellowthroat
<i>Oreothlypis celata</i>	orange-crowned warbler
Passerellidae	Sparrows and Towhees
<i>Melospiza melodia</i>	song sparrow
<i>Melospiza crissalis</i>	California towhee
<i>Pipilo maculatus</i>	spotted towhee
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
Picidae	Woodpeckers & Allies
<i>Picoides nuttallii</i>	Nuttall's woodpecker
Poliophtidae	Gnatcatchers
<i>Poliophtila californica californica***</i>	coastal California gnatcatcher
Sylviidae (Previously Timaliidae)	Old-World Warblers
<i>Chamaea fasciata**</i>	wrenit

Scientific Name	Common Name
Trochilidae	Hummingbirds
<i>Archilochus anna</i>	Anna's hummingbird
<i>Selasphorus rufus</i>	rufous hummingbird
<i>Selasphorus sasin</i>	Allen's hummingbird
Troglodytidae	Wrens
<i>Thryomanes bewickii</i>	Bewick's wren
<i>Troglodytes aedon</i>	house wren
Turdidae	Bluebirds and Thrushes
<i>Catharus guttatus</i>	hermit thrush
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	black phoebe
<i>Tyrannus vociferans</i>	Cassin's kingbird
MAMMALS	
Leporidae	Rabbits and Hares
<i>Sylvilagus audubonii</i>	desert cottontail rabbit
Sciuridae	Squirrels
<i>Otospermophilus beecheyi</i>	California ground squirrel

*nonnative species

**CDFW California Species of Special Concern/CDFW Fully Protected Species/Watch List Species

***Federally or state-listed threatened or endangered, or Candidate for federal or state listing threatened or endangered

APPENDIX C

CNDDDB Forms

CNDDDB Online Field Survey Form Report



California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/



Source code TIS22F0003
Quad code 3311713
Occ. no. _____
EO index no. _____
Map index no. _____

This data has been reported to the CNDDDB, but may not have been evaluated by the CNDDDB staff

Scientific name: *Polioptila californica californica*

Common name: coastal California gnatcatcher

Date of field work (mm-dd-yyyy): 04-28-2022

Comment about field work date(s): 6 surveys conducted between 03/10/2022 and 04/28/2022

OBSERVER INFORMATION

Observer: Christine Tischer

Affiliation:

Address: 2861 Pullman Ave , Santa Ana, CA 92705

Email: ctischer@ecorpc consulting.com

Phone: (714) 648-0630

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in:

By another person:

Other: Visual observations and vocal detections by an experienced permitted biologist

Identification explanation:

Identification confidence: Very confident

Species found: Yes If not found, why not?

Level of survey effort: Protocol breeding season surveys conducted

Total number of individuals: 11

Collection?

Collection number:

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Heard singing then seen

Number detected in each age class:

11

adults

juveniles

larvae

egg mass

unknown

Age class comment: 5 male/female pairs and 1 lone male, all adults

Bird site use:

- Nesting
 Rookery
 Nesting colony
 Burrow site
 Lek
 Non-breeding (over-wintering)
 Communal roost
 Other

Site use description:

What was the observed behavior? [Territorial, foraging, nesting, dispersal](#)

Describe any evidence of reproduction:

SITE INFORMATION

Habitat description: [Coastal Sage Scrub](#)

Slope:

Land owner/manager: [Private](#)

Aspect:

Site condition + population viability: [Good](#)

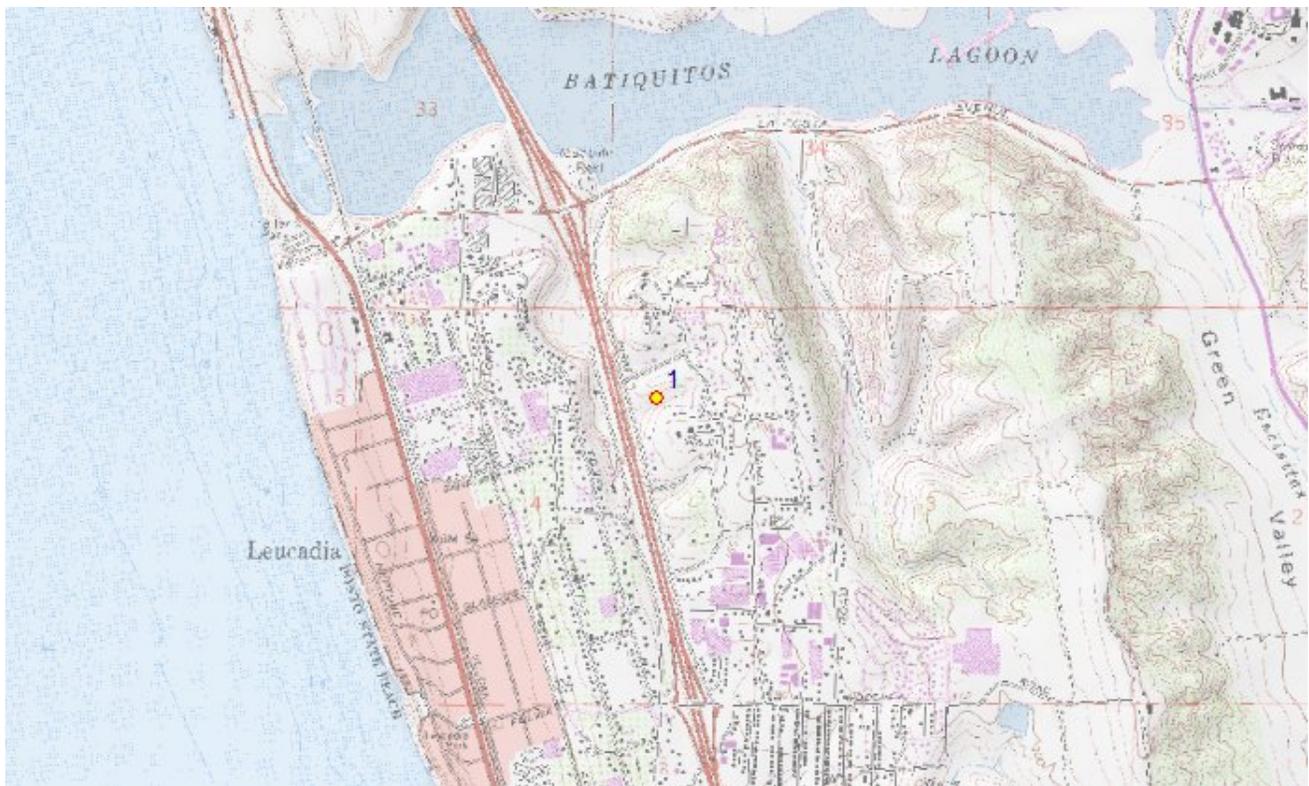
Immediate & surrounding land use: [open space, recreation](#)

Visible disturbances:

Threats:

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	San Diego	Encinitas	132	33.07696	-117.29398	472561	3659858	11
1	Public Land Survey	Feature Comment						
	S T13S R04W 4							

The mapped feature is accurate within: [1000 m](#)

Source of mapped feature: [CNDDDB online field survey tool](#)

Mapping notes: [See attached map for detailed locations.](#)

Location/directions comments:

Attachment(s): [CAGN_Survey_Results.pdf](#)

Pacific Pocket Mouse Focused Survey Report

September 22, 2022

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

Subject: Results of a trapping survey for the federally endangered Pacific pocket mouse (*Perognathus longimembris pacificus*, PPM) at the Lennar-Piraeus Point project site in Encinitas, San Diego County.

Dear Ms. Love:

This report presents the results of a trapping survey for Pacific pocket mouse (PPM, *Perognathus longimembris pacificus*) at the site of the Lennar-Piraeus Point proposed residential development in Encinitas. An assessment of the suitability of habitats in the study area (Figure 1) was carried out to inform the live-trapping survey. The purpose of the trapping survey was to determine the presence/absence of PPM and whether impacts to PPM could occur as a result of the proposed project. The study area includes two parcels. Figure 1 shows the site that is proposed for development (Assessor Parcel Number [APN] 254-144-01-00) on an aerial photo, with a second parcel to the north that is not proposed for development (APN 216-110-35-00; approximately 4.95 acres). The southern parcel, inclusive of the 6.87-acre development area (proposed housing tract, fuel modification zone, and offsite improvement areas along Pireaus and Plato), covers approximately 7.37 acres, with an elevation from 100 to 160 feet above mean sea level (amsl). The northern parcel covers approximately 4.95 acres, with an elevation from 40 to 100 feet amsl. Figure 2 shows the two parcels on the USGS Encinitas 7'5 minute topographic map (proposed development site: T13S, R4W, NE^{1/4} S4; additional parcel: T12S, R4W, SE^{1/4} S 33, SW^{1/4} S34). Site photos are found in Appendix 1. Historical aerial photos of the site are found in Appendix 2.

Pacific Pocket Mouse Background

The Pacific pocket mouse historically ranged in coastal southern California from El Segundo in Los Angeles County south to the U.S.-Mexico border in San Diego County. The species occurred in coastal strand, coastal dunes, river alluvium, and coastal sage scrub habitats growing mostly on maritime terraces (Grinnell, 1933; Meserve, 1976; U.S. Fish and Wildlife Service [USFWS], 1994, 1997). PPM occur in open coastal sage scrub and grasslands, which tend to have a diverse community of grasses and annual herbs, the seeds of which are its main diet (Meserve, 1976).

Methods

A habitat assessment that examined soil, vegetation, topographic and disturbance features was carried out on the site on August 23, 2022. The habitat assessment identified potentially suitable PPM habitat that would be the focus of the live-trapping survey. The live-trapping survey consisted of 140 Sherman live traps (3 x 3.5 x 9") with doors shortened to avoid tail damage to small mammals. The survey was carried out from August 23 to 27, 2022 by Phil Brylski (USFWS permit TE148555-2 and California Department of Fish and Wildlife [CDFW] MOU). The trapping effort covered suitable habitat within the site proposed for development. Traps were not set in unsuitable habitats, including dense coastal sage scrub on steep slopes, such as in the southern and northern parts of the site, and the steep hillsides along the western side of the site.



Figure 3. Trap locations

Site Description

The project site (APN 254-144-01-00) is on a hill that slopes in three directions: from the northern end into a canyon, the southern end to the flat disturbed area, and along the western side to Piraeus Street. The southern end of the site contains a bare, compacted, flat area that is bordered by sparse to moderately dense nonnative grassland covering approximately 0.9 acres (photo 1). Plants observed in this area include red brome (*Bromus madritensis* ssp. *rubens*), common Mediterranean grass (*Schismus barbatus*), salt grass (*Distichilis spicata*), red-stemmed filaree (*Erodium cicutarium*), hottentot fig (*Carpobrotus edulis*), Menzies' goldenbush (*Isocoma menziesii* var. *menziesii*), and telegraph weed (*Heterotheca grandiflora*).

A moderately steep slope connects the flat area north to the hilltop. The slope contains dense coastal sage scrub (CSS) dominated by California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), lemonade berry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), thicketleaf yerba santa (*Eriodictyon crassifolium*), black sage (*Salvia mellifera*), mulefat (*Baccharis salicifolia*), California brittlebush (*Encelia californica*), and nonnative species such as crystalline ice plant (*Mesembryanthemum crystallinum*) (photos 2-4). This CSS community is crossed by three dirt paths/roads (photo 5 shows the western path) that lead to the hilltop and a footpath outside the western border of the site (photo 6).

The hilltop area in the north-central part of the site is flat along the eastern side; on the western side slopes to the west toward Interstate 5. The plant cover on the western side is mainly deerweed scrub with scattered coyote bush (*Baccharis pilularis*), California everlasting (*Pseudognaphalium californicum*), and nonnative grasses. A bike/motorcycle track is in active use (photo 7). The eastern side is disturbed land cover with sparse ruderal plants such as Russian thistle (*Salsola tragus*) and jimsonweed (*Datura wrightii*) (photo 8).

The northern part of the site descends from relatively level terrain into a steep canyon with dense CSS cover. The dominant shrubs are California sagebrush, chamise (*Adenostoma fasciculatum*), mulefat, laurel sumac, toyon (*Heteromeles arbutifolia*), lemonade berry, and black sage.

The parcel that is not proposed for development (APN 216-110-35-00 in Figure 1) contains dense chamise chaparral and brittle bush scrub vegetation, deerweed scrub, and dense annual brome grassland (photos 9, 10).

Results

Site History

Geocon's (2022) review of the project site includes 17 historical aerial photos taken from 1926 to 2016, selected photos from which are included in Appendix 2. In 1939 (aerial photo 1 in Appendix 2), the vegetation covers most of the site and appears to be dense scrub, possibly with sparse cover or bare patches in the central and southern parts. The lowland areas around the site appear to have been cleared or plowed for agricultural use, including the southwestern corner of the project site. By 1953 (aerial photo 2), vegetation had been removed from much of the site,

which is first seen in the 1953 aerial. In this and later aerials, dense plant cover remains in the northern part of the site bordering the canyon, and the site remains cleared in most years with intermittent exceptions in the occurrence or re-occurrence of the vegetation patch on the southern hillside.

Figure 4 is an aerial view of the project site in 2003 (Google Earth, 2022) showing habitat disturbance except on the hillsides in the northern and southern parts. This reflects the pattern of disturbance on the site since 1953.

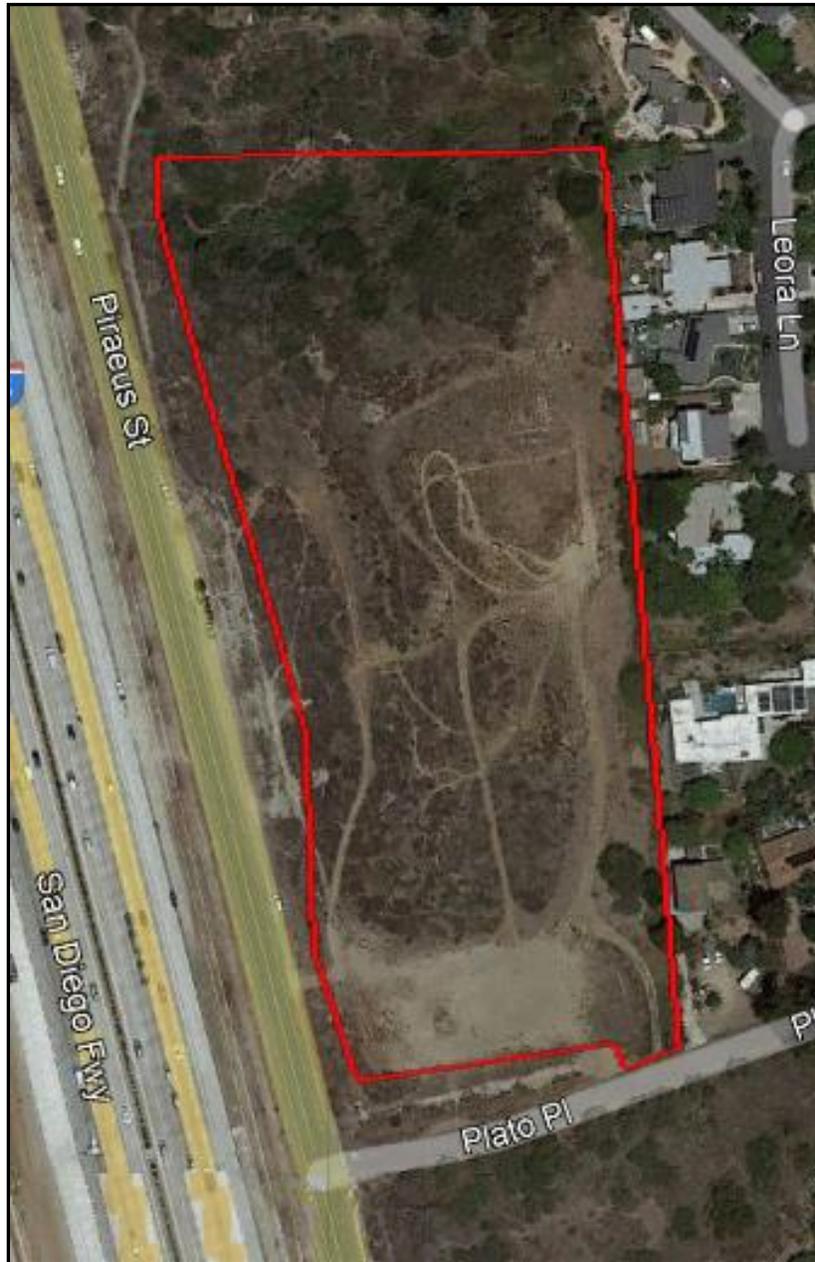


Figure 4. 2003 aerial photo of the project site (source: Google Earth, 2022)

Habitat Assessment

The soils on the project site are Gaviota fine sandy loams (about half of the project site), Marina loamy coarse sands, and “rough broken land” (NRCS 2022). The geotechnical survey of the site found that the surface soils in the flat area in the southern part of the project site are ‘undocumented fill’, which is an indication of previous disturbance. The historical aerial photos show that the southern part of the site had been graded starting as early as 1939.

The project site proposed for development contains potentially suitable PPM habitat in the central and north-central parts of the site. This area covers approximately 1.9 acres. Most of the remaining site is unsuitable for PPM due to the dense shrub cover, steep slopes, and compacted soils. The parcel not proposed for development (APN 216-110-35-00 in Figure 1) contains dense scrub and brome grassland habitats that are not suitable for PPM.

Small Mammal Survey Results

Weather conditions during the trapping effort were mild. Air temperatures ranged from the 65 to 71 °F, with low winds. Cloud cover ranged from 0 to 100%.

Date (2022)	Temperature (F)	Cloud Cover (%)	Wind (mph)
8-23	68/71	100	0
8-24	65/68	5	0-1
8-25	67/70	65	0
8-26	67/70	100	1
8-27	66/70	100	0

No PPM were captured during the live-trapping survey. Four small mammal species were captured: the northwestern San Diego pocket mouse, harvest mouse, San Diego desert woodrat, and house mouse. Table 2 summarizes the captures.

Date (2022)	CFAL	RMEG	NBRY	MMUS
8-23	12			
8-24	9	1		2
8-25	12	1		1
8-26	10	1	1	1
8-27	9	2		1
totals	52	5	1	5
CFAL, northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>) RMEG, harvest mouse, (<i>Reithrodontomys megalotis</i>) NBRY, San Diego desert woodrat (<i>Neotoma bryanti intermedia</i>) MMUS, house mouse (<i>Mus musculus</i>)				

Of the four mammal species captured, none are state or federally listed and two are California Species of Special Concern, as follows:

California Mammal Species of Special Concern

- northwestern San Diego pocket mouse
- San Diego desert woodrat

Non-Status Species

- harvest mouse
- house mouse (nonnative)

The northwestern San Diego pocket mouse and San Diego desert woodrat are included on the CDFW list of Mammal Species of Concern. However, they are locally and regionally common in scrub habitats throughout their historic range.

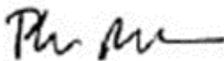
Discussion

No PPM were captured during the survey. The project site is within the historical range of PPM and contains a small area (less than two acres) of low-quality habitat for the species. This habitat occurs on the hilltop in the north-central part of the site.

The review of historical aerial photos found that the site contained native scrub vegetation in 1939 and 1947, when agricultural conversion occurred in the southwestern corner. It is not known whether the habitat elsewhere on the site would have been suitable for PPM. Since then, the site was partially cleared or plowed. The steeper slopes in the northern and southern parts of the site were typically not cleared. Currently, these are the least suitable habitats for PPM on the site and therefore would not likely be a source of re-colonizers of the disturbed habitats.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work. Please contact me if you have any questions.

Sincerely,



Phil Brylski, Ph.D.
Permit 148555-2
pbrylski@gmail.com

References

- Geocon, Inc. 2022. Phase 1 Environmental Assessment report, Piraeus Point, Encinitas. Prepared for Lennar, San Diego. 19 pp + appendices.
- Google Earth. 2022. Aerial photographs of the Piraeus project site, dated March 2003.
- Grinnell, J. 1933. Review of the recent mammal fauna of California. University of Calif. Publ. in Zoology 40:71-234.
- Meserve, P.L. 1976. Habitat and resource utilization by rodents of a California coastal sage scrub community. J. Anim. Ecol. 46:647-666.
- Natural Resources Conservation Service (NRCS). 2022. Custom soil resource report for Western Riverside area, California. (<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>).
- U.S. Fish and Wildlife Service. 1997. Draft Recovery Plan for the Pacific Pocket Mouse (*Perognathus longimembris pacificus*). Carlsbad Field Office, Ecological Services, Carlsbad, California. 93pp.
- _____. 1994. Endangered and threatened wildlife and plants; determination of endangered status for the Pacific pocket mouse, final rule, Federal Register 59(188):49752-49764, September 29, 1994.

Appendix 1. Site photos



Photo 1. Disturbed habitat in southern end of the site, looking north.

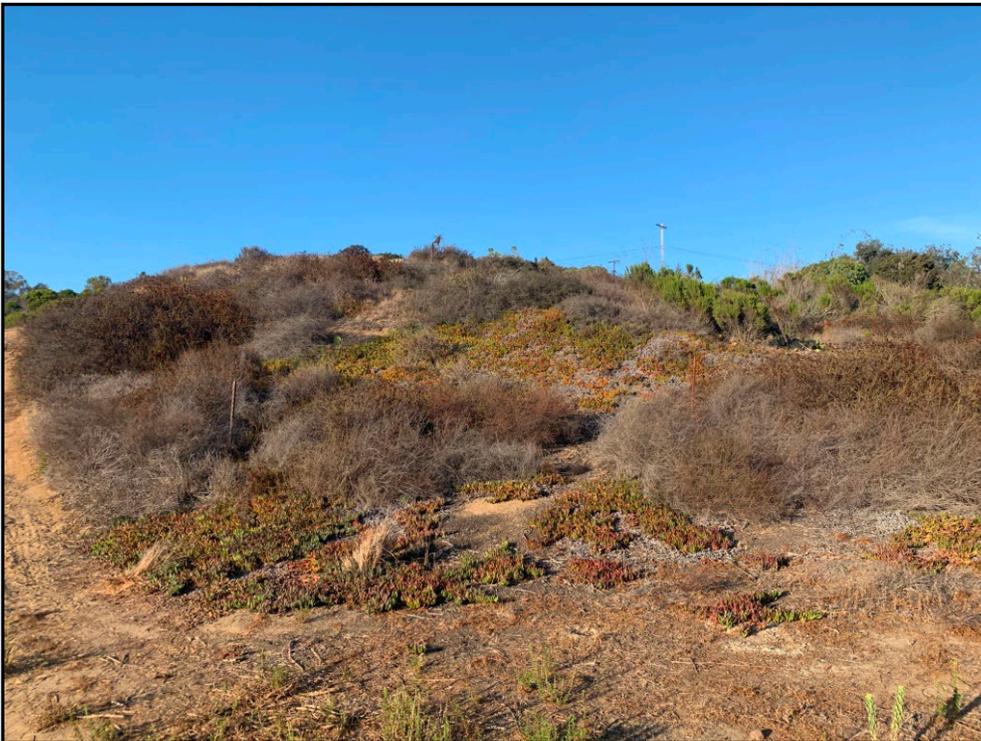


Photo 2. Coastal sage scrub (CSS) and ornamental plant cover on the southwestern slope, looking north.



Photo 3. CSS on the southcentral slope, looking northeast.



Photo 4. CSS on the southeastern slope, looking north.



Photo 5. Bike path through dense CSS on the southwestern hillside, looking north.

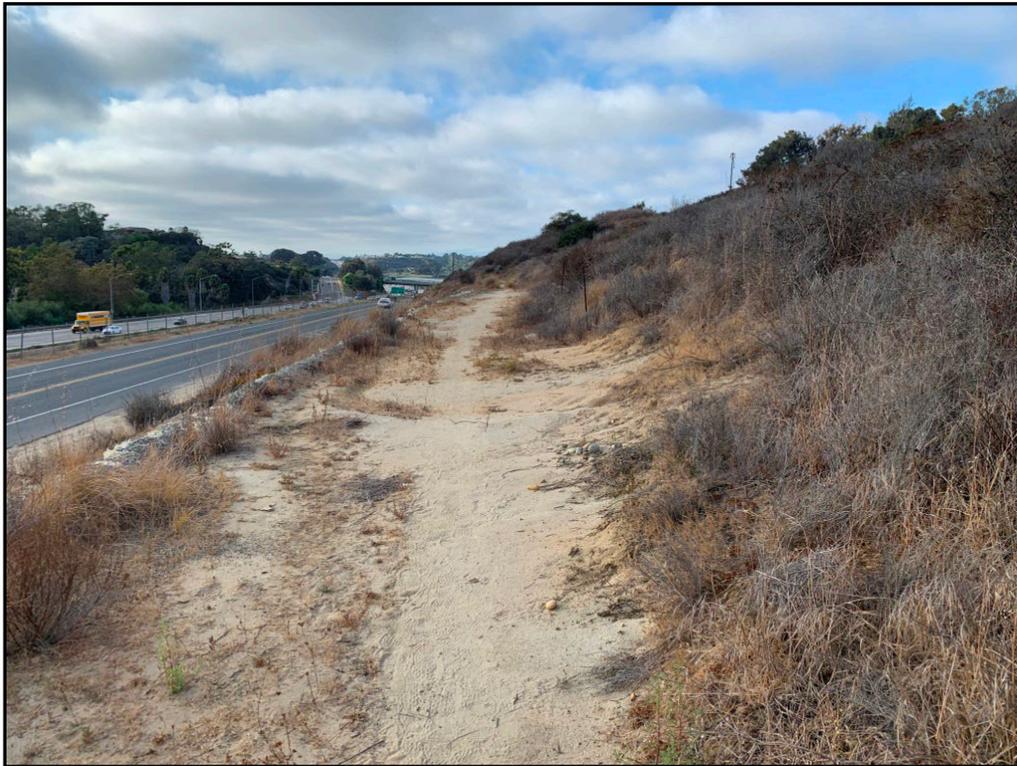


Photo 6. Dirt path outside the western border of the project site, looking north.



Photo 7. Disturbed and deerweed habitat on the hilltop in the north-central part of site with active bike/motorcycle track, looking north.



Photo 8. Disturbed area on the hilltop in the eastern part of site, looking north.

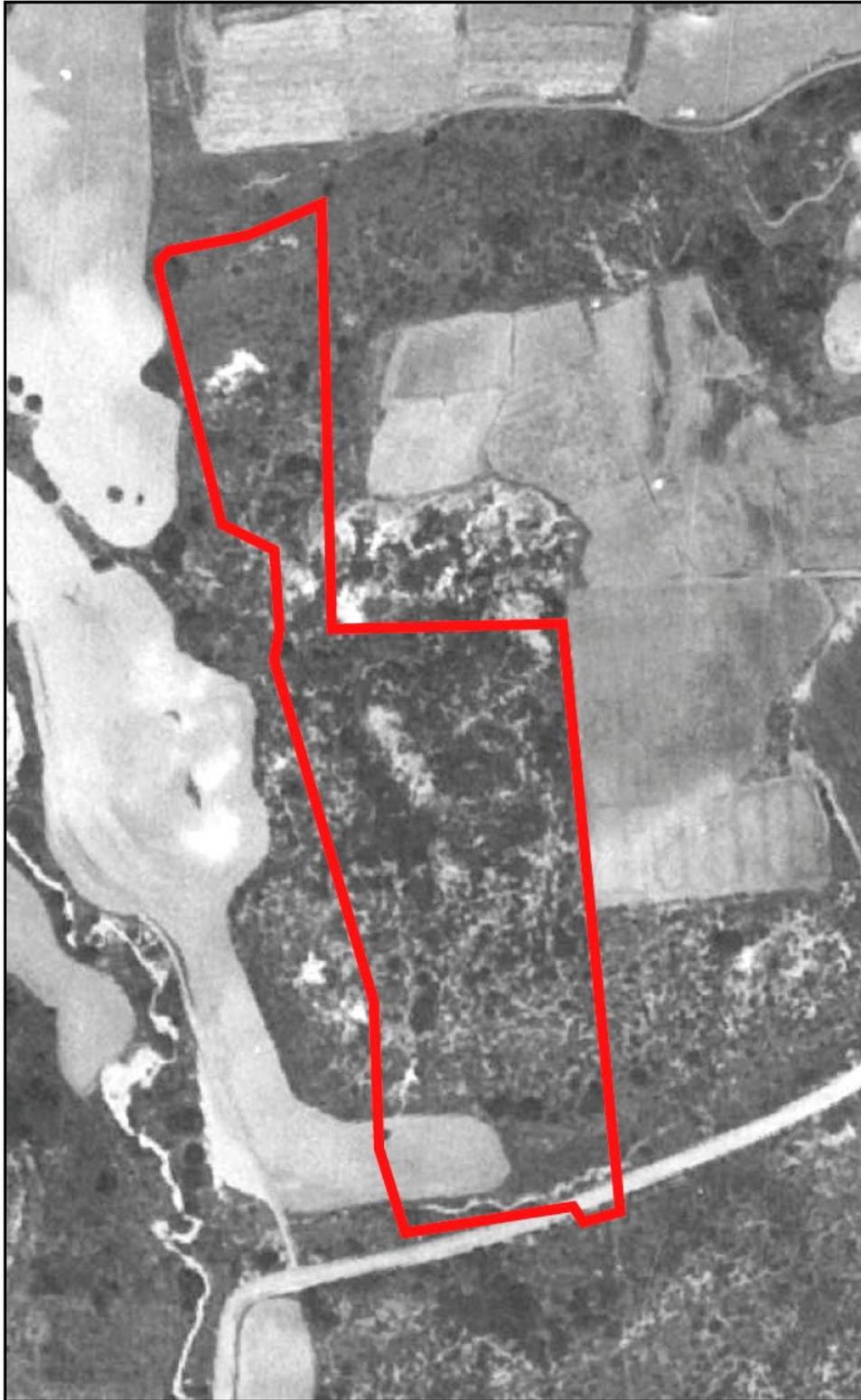


Photo 9. Dense nonnative grassland in parcel not proposed for development (APN 216-110-35-00, south of Sky Loft Road), looking east.



Photo 10. Dense nonnative grassland in parcel not proposed for development (APN 216-110-35-00, north of Sky Loft Road), looking north.

Appendix 2. Historical aerial photos



Aerial photo 1. 1939 aerial of the project site (source: Geocon 2022).



Aerial photo 2. 1953 aerial of the project site (source: Geocon 2022).



Aerial photo 3. 1985 aerial of the project site (source: Geocon 2022).



Aerial photo 4. 2002 aerial of the project site (source: Geocon 2022).

ATTACHMENT D

Representative Site Photographs

Attachment D: Representative Site Photographs



Photo 1. View of the disturbed pad at the southern end of the Development Area with coastal sage scrub in the background; photo facing north. March 10, 2022.



Photo 2. View of the coastal sage scrub within the Development Area; photo facing north. March 10, 2022.

Attachment D: Representative Site Photographs



Photo 3. View from a dirt path that bisects the coastal sage scrub in the center of the Development Area, facing the disturbed pad of the southern portion of the site; photo facing south. March 10, 2022.



Photo 4. View of a disturbed area within the center of the Development Area, showing evidence of use as a dump site; photo facing northwest. March 10, 2022.

Attachment D: Representative Site Photographs



Photo 5. Deerweed scrub within the western portion of the Development Area; photo facing south. March 10, 2022.



Photo 6. Chaparral within the northern portion of the Development Area extending into the Preserve Area; photo facing west. March 10, 2022.



Photo 7. Rare plant California adolphia (*Adolphia californica*), California Rare Plant Rank (CRPR) 2B.1, within the Development Area. March 10, 2022.



Photo 8. Coastal California gnatcatcher (*Polioptila californica californica*), federally-listed threatened, within the Development Area. March 10, 2022.

Attachment D: Representative Site Photographs



**Photo 9. Chaparral within the Preserve Area, south of Sky Loft Road; photo facing south.
March 10, 2022.**



**Photo 10. Coastal sage scrub within the Preserve Area, south of Sky Loft Road; photo facing north.
March 10, 2022.**

Attachment D: Representative Site Photographs



Photo 11. Annual brome grasslands within the Preserve Area, north of Sky Loft Road; photo facing north. March 10, 2022.



Photo 12. Coastal sage scrub within the Preserve Area, north of Sky Loft Road; photo facing east. March 10, 2022.

ATTACHMENT E

Plant Species Observed

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	
<i>Yucca schidigera</i>	Mojave yucca		X	X
Aizoaceae	Iceplant Family			
<i>Aptenia cordifolia</i> *	baby sun rose			X
<i>Carpobrotus edulis</i> *	hottentot fig		X	X
<i>Mesembryanthemum crystallinum</i> *	crystalline ice plant		X	X
Amaranthaceae	Amaranth Family			
<i>Amaranthus albus</i> *	pigweed amaranth			X
Anacardiaceae	Cashew Family			
<i>Malosma laurina</i>	laurel sumac		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
<i>Sanicula crassicaulis</i>	gamble weed			X
Araucariaceae	Araucaria Family			
<i>Araucaria heterophylla</i> *	Norfolk Island pine		X	X
Arecaceae	Palm Family			
<i>Phoenix canariensis</i> *	Canary Island date palm			X
<i>Washingtonia robusta</i> *	Mexican fan palm			X
Asparagaceae	Asparagus Family			
<i>Asparagus asparagoides</i> *	African asparagus fern			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>Chaenactis glabriuscula</i> var <i>glabriuscula</i>	common yellow chaenactis			X
<i>Cirsium</i> sp.	thistle			X
<i>Cirsium occidentale</i>	cobweb thistle			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 bonariensis</i> *	flax-leaved horseweed		X	X

Scientific Name	Common Name	2017	2019	2022
<i>Erigeron canadensis</i> *	horseweed		X	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>Isocoma menziesii</i> var. <i>menziesii</i>	Menzies' goldenbush			X
<i>Lactuca serriola</i> *	prickly lettuce		X	X
<i>Logfia gallica</i> *	narrowleaf cottonrose		X	X
<i>Osmadenia tenella</i>	false rosinweed			X
<i>Osteospermum monstrosum</i> *	one eye monster			X
<i>Pseudognaphalium beneolens</i>	cudweed			X
<i>Pseudognaphalium biolettii</i>	two-color rabbit-tobacco			X
<i>Pseudognaphalium californicum</i>	California everlasting		X	X
<i>Pseudognaphalium luteoalbum</i> *	Jersey cudweed			X
<i>Pseudognaphalium stramineum</i>	cottonbatting plant		X	
<i>Silybum marianum</i> *	milk thistle			X
<i>Sonchus asper</i> *	spiny sow-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	X
<i>Stylocline gnaphaloides</i>	everlasting neststraw		X	X
Boraginaceae	Borage Family			
<i>Amsinckia tessellata</i>	fiddleneck			X
<i>Cryptantha</i> sp.	catseyes		X	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	X
<i>Raphanus sativus</i> *	wild radish		X	X
<i>Sisymbrium orientale</i> *	eastern rocket		X	X
Cactaceae	Cactus Family			
<i>Cylindropuntia prolifera</i>	coastal cholla			X
<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	

Scientific Name	Common Name	2017	2019	2022
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
Convolvulaceae	Morning-glory family			
<i>Calystegia macrostegia</i>	island false bindweed			X
Crassulaceae	Stonecrop Family			
<i>Crassula connata</i>	pygmy-weed		X	X
<i>Crassula ovata*</i>	jade plant		X	X
<i>Dudleya edulis</i>	fingertips			X
<i>Dudleya pulverulenta</i>	chalk dudleya			X
Cucurbitaceae	Wild Cucumber Family			
<i>Marah sp.</i>	cucumber			X
<i>Marah macrocarpa</i>	wild cucumber		X	X
Ericaceae	Heath Family			
<i>Xylococcus bicolor</i>	mission manzanita		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
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 (Lotus scoparius)</i>	deerweed		X	X
<i>Medicago polymorpha*</i>	bur clover		X	X
<i>Melilotus indicus*</i>	sourclover		X	X
Fagaceae	Oak Family			
<i>Quercus engelmannii</i> <small>CNPS Rank 4.2</small>	Engelmann oak			X
Geraniaceae	Geranium Family			
<i>Erodium sp. *</i>	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 sp. *</i>	iris		X	
Juglandaceae	Walnut Family			

Scientific Name	Common Name	2017	2019	2022
<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
Lythraceae	Loosestrife Family			
<i>Lythrum hyssopifolia</i>	grass-poly		X	X
Malvaceae	Mallow Family			
<i>Malacothamnus sp.</i>	mallow			X
<i>Malacothamnus fasciculatus</i>	chaparral bush mallow			X
<i>Malva multiflora</i>	cretan tree mallow		X	
<i>Malva parviflora*</i>	cheeseweed mallow			X
Montiaceae	Miner's Lettuce Family			
<i>Claytonia sp.</i>	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
Oleaceae	Olive Family			
<i>Fraxinus uhdei*</i>	Shamel ash			X
Onagraceae	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
<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	X
Plumbaginaceae	Leadwort Family			
<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>Polygonum aviculare*</i>	prostrate knotweed			X
<i>Pterostegia drymarioides</i>	fairy mist			X

Scientific Name	Common Name	2017	2019	2022
<i>Rumex crispus</i> *	curly dock		X	X
<i>Rumex spinosa</i> *	devil's thorn			X
Rhamnaceae	Buckthorn Family			
<i>Adolphia californica</i> <small>CNPS Rank 2B.1</small>	California adolphia	X	X	X
<i>Ceanothus verrucosus</i> <small>CNPS Rank 2B.2</small>	wart-stemmed ceanothus			X
<i>Frangula californica</i>	California coffeeberry			X
<i>Rhamnus crocea</i>	redberry buckthorn			X
Rosaceae	Rose Family			
<i>Adenostoma fasciculatum</i>	chamise		X	X
<i>Heteromeles arbutifolia</i>	toyon			X
Rubiaceae	Madder Family			
<i>Galium</i> sp.	bedstraw			X
Rutaceae	Citrus Family			
<i>Citrus latifolia</i> *	lime		X	
Sapindaceae	Soapberry Family			
<i>Cupaniopsis anacardioides</i> *	tuckeroo		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>Sairocarpus nuttallianus</i>	Nuttall's snapdragon		X	
<i>Scrophularia californica</i>	California bee plant			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
<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	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
Zygophyllaceae	Caltrop Family			
<i>Tribulus terrestris</i> *	puncture vine			X
ANGIOSPERMS (MONOCOTYLEDONS)				
Poaceae	Grass Family			
<i>Arundo donax</i> *	giant reed		X	X
<i>Avena barbata</i> *	slender wild oat		X	X

Scientific Name	Common Name	2017	2019	2022
<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 jubata</i> *	purple pampas grass			X
<i>Cortaderia selloana</i> *	pampas grass		X	X
<i>Cynodon dactylon</i> *	Bermuda grass			X
<i>Distichlis spicata</i>	salt grass		X	X
<i>Ehrharta erecta</i> *	veldt grass		X	
<i>Elymus condensatus</i>	giant wild rye			X
<i>Festuca myuros</i> *	rat's-tail fescue			X
<i>Hordeum murinum</i> *	wall barley		X	X
<i>Festuca perennis</i> * (<i>Lolium multiflorum</i> *)	Italian ryegrass		X	X
<i>Lamarckia aurea</i> *	goldentop grass			X
<i>Melica imperfecta</i>	little California melica		X	
<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>Stipa lepida</i>	foothill needle grass			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 2022a)

CNPS Rare and Endangered Plant Inventory (CNPS 2022)

ATTACHMENT F

Wildlife Species Observed

PIRAEUS POINT PROPERTY WILDLIFE SPECIES OBSERVED

Scientific Name	Common Name	2017	2019	2022
INSECTS				
Apidae	Bees			
<i>Apis mellifera</i>	western honey bee			X
<i>Bombus vosnesenskii</i>	yellow-faced bumble bee			X
Lycaenidae	Blues, Hairstreaks, & Gossamer Wings			
<i>Glaucopsyche lygdamus</i>	silvery blue			X
Nymphalidae	Brush-footed Butterflies			
<i>Danaus plexippus****</i>	monarch butterfly			X
<i>Nymphalis antiopa</i>	mourning cloak			X
<i>Vanessa cardui</i>	painted lady			X
Pieridae	Orange-Tips, Whites and Sulfurs			
<i>Anthocharis sara</i>	Sara orangetip			X
<i>Pieris rapae</i>	cabbage white			X
Hesperidae	Skippers			
<i>Erynnis funeralis</i>	funereal duskywing			X
BIRDS				
Anatidae	Geese, Ducks, & Swans			
<i>Anas platyrhynchos</i>	mallard			X
Ardeidae	Hérons and Egrets			
<i>Ardea alba</i>	great egret			X
<i>Ardea herodias</i>	great blue heron			X
Accipitridae	Hawks, Kites, & Eagles			
<i>Accipiter cooperii*</i>	Cooper's hawk			X
<i>Buteo jamaicensis</i>	red-tailed hawk			X
Aegithalidae	Bushtits			
<i>Psaltriparus minimus</i>	bushtit		X	X
Cardinalidae	Cardinals & Allies			
<i>Pheucticus melanocephalus</i>	black-headed grosbeak			X
Cathartidae	Vultures			
<i>Cathartes aura</i>	turkey vulture			X
Columbidae	Pigeons and Doves			
<i>Columba livia+</i>	rock pigeon			X
<i>Streptopelia decaocto+</i>	Eurasian collared-dove			X
<i>Zenaida macroura</i>	mourning dove		X	X
Corvidae	Jays and Crows			
<i>Corvus brachyrhynchos</i>	American crow		X	X
<i>Corvus corax</i>	common raven			X
<i>Aphelocoma californica</i>	California scrub-jay		X	X
Estrildidae	Waxbills & Allies			
<i>Lonchura punctulate+</i>	scaly-breasted munia			X
Fringillidae	Finches			

<i>Carpodacus mexicanus</i>	house finch		X	X
<i>Spinus psaltria</i>	lesser goldfinch		X	X
Icteridae	Blackbirds & Orioles			
<i>Agelaius phoeniceus</i>	red-winged blackbird			X
<i>Icterus cucullatus</i>	hooded oriole			X
Laridae	Gulls, Terns, & Skimmers			
<i>Larus sp.</i>	gull sp.			X
Mimidae	Mockingbirds and Thrashers			
<i>Mimus polyglottos</i>	northern mockingbird		X	X
<i>Toxostoma redivivum</i>	California thrasher		X	X
Odontophoridae	New World Quail			
<i>Callipepla californica</i>	California quail			X
Parulidae	Wood Warblers			
<i>Geothlypis trichas</i>	common yellowthroat			X
<i>Oreothlypis celata</i>	orange-crowned warbler			X
Passerellidae	Sparrows and Towhees			
<i>Melospiza melodia</i>	song sparrow			X
<i>Melospiza crissalis</i>	California towhee		X	X
<i>Pipilo maculatus</i>	spotted towhee			X
<i>Zonotrichia leucophrys</i>	white-crowned sparrow			X
Picidae	Woodpeckers & Allies			
<i>Picoides nuttallii</i>	Nuttall's woodpecker			X
Poliptilidae	Gnatcatchers			
<i>Poliptila californica californica</i> ***	coastal California gnatcatcher	X	X	X
Sylviidae	Old-World Warblers			
<i>Chamaea fasciata</i>	wren		X	X
Trochilidae	Hummingbirds			
<i>Calypte anna</i>	Anna's hummingbird		X	X
<i>Selasphorus rufus</i> **	rufous hummingbird			X
<i>Selasphorus sasin</i>	Allen's hummingbird			X
Troglodytidae	Wrens			
<i>Thryomanes bewickii</i>	Bewick's wren			X
<i>Troglodytes aedon</i>	house wren			X
Turdidae	Bluebirds & Thrushes			
<i>Catharus guttatus</i>	hermit thrush			X
Tyrannidae	Tyrant Flycatchers			
<i>Sayornis nigricans</i>	black phoebe		X	X
<i>Tyrannus vociferans</i>	Cassin's kingbird			X
REPTILES				
Anguillidae	Alligator Lizards			
<i>Elgaria multicarinata</i>	southern alligator lizard			X
Phrynosomatidae	Spiny Lizards			
<i>Sceloporus occidentalis</i>	western fence lizard		X	X
Teiidae	Whiptails & Relatives			
<i>Aspidoscelis hyperthra</i>	orange-throated whiptail			X

Viperidae	Vipers			
<i>Crotalus oreganus helleri</i>	southern Pacific rattlesnake		X	
MAMMALS				
Cricetidae	New World Rats and Mice			
<i>Neotoma sp. (midden)</i>	woodrat			X
<i>Neotoma lepida intermedia*</i>	San Diego desert woodrat			X
<i>Reithrodontomys megalotis</i>	harvest mouse			X
Canidae	Dogs, Wolves, and Foxes			
<i>Canis latrans (scat and tracks)</i>	coyote		X	X
Geomyidae	Gophers			
<i>Thomomys bottae</i>	Botta's pocket gopher		X	
Heteromyidae	Kangaroo Rats and Pocket Mice			
<i>Chaetodipus fallax fallax*</i>	northwestern San Diego pocket mouse			X
Leporidae	Rabbits and Hares			
<i>Sylvilagus audubonii</i>	desert cottontail rabbit		X	X
Mephitidae	Skunks and Stink Badgers			
<i>Mephitis mephitis</i>	striped skunk		X	
Muridae	Old World Rats and Mice			
<i>Mus musculus⁺</i>	house mouse			X
Sciuridae	Squirrels			
<i>Otospermophilus beecheyi</i>	California ground squirrel			X

+nonnative species

*CDFW California Species of Special Concern/CDFW Fully Protected Species/Watch List Species

**USFWS Birds of Conservation Concern

***Federally or state-listed threatened or endangered

****Candidate for federal or state listing threatened or endangered

Special-Status Plant Species Potential For Occurrence

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					
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>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					
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>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					
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>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					
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>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					
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 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 ssp. 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					
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>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					
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>Lasthenia glabrata ssp. 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 var. 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 ssp. 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					
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>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 var. 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					
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>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					
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>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					
<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
<p>Federal Designations (FESA, USFWS) END: Federally listed, endangered THR: Federally listed, threatened</p> <p>State Designations (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>Local Designations [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>					

Special-Status Wildlife Species Potential for Occurrence

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
INSECTS			
<i>Danaus plexippus</i> monarch - California overwintering population	USFWS: CAN CDFW: None MHCP: Not Covered	Roosts in wind-protected tree groves (Coastal California conifer, Eucalyptus) from Northern Mendocino to Baja California.	Present: No suitable overwintering or breeding habitat is present in the Development Area. Suitable nectaring habitat is present throughout and this species was observed. Two recent records occur, with the closest being 1.6 miles southeast of the site from 2014.
<i>Lycaena hermes</i> Hermes copper butterfly	USFWS: THR CDFW: None MHCP: Not Covered	Dependent on its larval host plant, spiny redberry/redberry buckthorn (<i>Rhamnus crocea</i>), and its primary nectar source, California buckwheat (<i>Eriogonum fasciculatum</i>), both common in California coastal sage scrub.	Low: No suitable habitat is present within the Development Area. There is suitable larval and adult habitat within the vegetation of the Preserve Area. Spiny redberry and California buckwheat must occur within 15 feet of each other. No records occur within five miles of the Project Area.
CRUSTACEANS			
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	USFWS: END CDFW: None MHCP: Not Covered	Restricted to vernal and shallow ephemeral basins in Orange and San Diego Counties.	Presumed Absent: No suitable habitat present within the Project Area due to lack of vernal pools. Three recent records occur, with the closest record of the species is 1.5 miles northwest of the site from 2010.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	USFWS: END CDFW: None MHCP: Covered	Restricted to deep, long lasting vernal pools.	Presumed Absent: No suitable habitat present within the Project Area due to lack of vernal pools. One recent record occurs 1.7 miles northwest of the site from 2010.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Eucyclogobius newberryi</i> tidewater goby	USFWS: END CDFW: None MHCP: Not Covered	Inhabits lagoons, estuaries, marches, and coastal streams.	Presumed Absent: No suitable habitat is present within the Project Area. One historic record occurs within five miles of the site.
AMPHIBIANS			
<i>Spea hammondi</i> western spadefoot	USFWS: None CDFW: SSC MHCP: Covered	Prefers open areas with sandy or gravelly soils, requires rain pools free of bullfrogs and crayfish for breeding.	Presumed Absent: No suitable habitat is present within the Project Area. One recent record (2003) of four occurs 3.7 miles east of the site.
REPTILES			
<i>Anniella stebbinsi</i> southern California legless lizard	USFWS: None CDFW: SSC MHCP: Not Covered	Moist, loose soil is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	Moderate: Limited suitable habitat is present within the Project Area. Two recent records of three occur within five miles of the site, with the closest being 0.2 miles southwest of the site from 2018.
<i>Arizona elegans occidentalis</i> California glossy snake	USFWS: None CDFW: SSC MHCP: Not Covered	Loose soils preferred. Arid scrub, rocky washes, grasslands, and chaparral habitats.	Low: Limited suitable habitat is present within the Project Area. Two historic records occur within five miles of the site.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	USFWS: None CDFW: WL MHCP: Covered	Semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides and coastal chaparral.	High/Present: Suitable habitat for foraging, reproduction and cover are present. The Project Area occurs within the known range. One recent and eight historic records occur within 5 miles of the site with the closest being 4.1 miles north of the site from 2017. This species was observed adjacent to the site during the focused coastal California gnatcatcher surveys.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	USFWS: None CDFW: SSC MHCP: Not Covered	Inhabits hot and dry open areas with sparse foliage, including chaparral, and riparian areas.	Moderate: Suitable habitat is present and the Project Area occurs within known range of the species. One recent record occurs 4.1 miles south of the site from 2002.
<i>Phrynosoma blainvillii</i> coast horned lizard	USFWS: None CDFW: SSC MHCP: Not Covered	Inhabits open areas with sandy soils and low vegetation.	Low: Soils and low vegetation are not present within the Project Area. Five historic records occur within five miles of the site.
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	USFWS: None CDFW: SSC MHCP: Not Covered	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides and plains.	Moderate: Suitable habitat is present within the Project Area. One historic record occurs within five miles of the site.
<i>Thamnophis hammondi</i> two-striped gartersnake	USFWS: None CDFW: SSC MHCP: Not Covered	Found near water sources, such as pools, creeks, and riparian areas. Associated with oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	Presumed Absent: No suitable habitat is present within the Project Area. Two historic records occur within five miles of the site.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
BIRDS			
<i>Accipiter cooperii</i> Cooper's hawk	USFWS: None CDFW: WL MHCP: Covered	Inhabits wooded areas, from deep forests to leafy subdivisions.	Present: One individual was observed in the buffer of the Project Area during the reconnaissance survey. No breeding habitat occurs within the Project Area but the area could be used for foraging. No records occur within five miles of the site.
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	USFWS: None CDFW: WL MHCP: Covered	Breeds in sparsely vegetated scrubland on hillsides and canyons, can also be found in chaparral. This species thrives in areas that have been recently burned and will stay in such habitats for years.	High: Breeding habitat exists in the form of chaparral. One recent record of eight total occurred 4.4 miles southeast from 2002.
<i>Artemisiospiza belli belli</i> Bell's sage sparrow	USFWS: None CDFW: WL MHCP: Covered	Occurs in chaparral habitat dominated by chamise and/or California sagebrush.	Moderate: Foraging, breeding and cover habitat occur within the Project Area. Project Area occurs within known range. No records occur within five miles of the site.
<i>Campylorhynchus brunneicapillus sandiegensis</i> coastal cactus wren	USFWS: BCC CDFW: SSC MHCP: Not Covered	Inhabits coastal sage scrub and scrubby desert habitats. In coastal California, patches of prickly pear and cholla cacti within coastal sage scrub provides habitat.	Presumed Absent: No suitable habitat present in the Development Area. Limited suitable habitat present in the Preserve Area. Three historic records within five miles of the site. Project Area is outside of known range for the species.
<i>Charadrius nivosus nivosus</i> western snowy plover	USFWS: THR CDFW: SSC MHCP: Covered	Beaches, coastal dunes, coastal strand.	Presumed Absent: Suitable habitat is not present within the Project Area. Three historic records occur within five miles of the site.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Laterallus jamaicensis coturniculus</i> California black rail	USFWS: None CDFW: THR MHCP: Not Covered	Inhabits marshes along the coast and inland.	Presumed Absent: No suitable habitat is present within the Project Area. One historic record occurs within five miles of the site within San Elijo Lagoon.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	USFWS: None CDFW: END MHCP: Not Covered	Inhabits grasslands, meadows, tidal saltmarshes, estuaries.	Low: Limited suitable habitat within the Preserve Area. One recent record occurs 4.3 miles south of the site in the San Elijo Lagoon from 2002.
<i>Polioptila californica californica</i> coastal California gnatcatcher	USFWS: THR CDFW: SSC MHCP: Covered	Inhabits coastal sage scrub habitat less than 3000' in elevation along the coast.	Present: This species was observed within the Development Area and the Preserve Area during the reconnaissance survey. It was also observed during previous studies conducted for the site triggering focused surveys for the 2022 breeding season. Suitable coastal sage scrub habitat for this species occurs within the Project Area. Six recent records of twenty-six total occur within five miles of the site with the closest recent record occurring 0.8 miles southeast of the site, with two adults being observed in 2005. Focused surveys for this species confirmed presence of this species within the Proposed Project with two pairs occupying the Development Area, 1 territorial male in the Preserve Area south of Sky Loft, and 2 pairs east of the Preserve Area and north of Sky Loft (1 of these territories slightly overlaps the Preserve Area).

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Rallus longirostris levipes</i> light-footed Ridgway's rail	USFWS: END CDFW: END MHCP: Covered	Inhabits salt and brackish marshes.	Presumed Absent: No suitable marsh habitat is present within the Project Area. Four recent records within five miles of the site occur, with the closest being 0.03 miles northwest of the Project Area in the Batiquitos Lagoon from 2007.
<i>Sternula antillarum browni</i> California least tern	USFWS: END CDFW: END MHCP: Covered	Inhabits beaches, mudflats, and sand dunes, typically near lagoons or shallow estuaries near the ocean. They roost on the ground in unprotected areas of the coastal environment.	Presumed Absent: No suitable habitat is present within the Project Area. Three historic records occur within five miles of the site.
<i>Vireo bellii pusillus</i> least Bell's vireo	USFWS: END CDFW: END MHCP: Covered	Inhabits dense, low shrubby vegetation, generally early successional stages in riparian areas, often near water in arid regions.	Presumed Absent: No riparian vegetation exists within the Project Area. Nine recent records occur within five miles of the site, with the closest occurrence being 1.8 miles east of the site from 2011.
MAMMALS			
<i>Chaetodipus californicus femoralis</i> Dulzura pocket mouse	USFWS: None CDFW: SSC MHCP: Not Covered	Occurs in a variety of habitats, especially where grassland and chaparral occur in close proximity.	Low: Limited suitable habitat is present within the Project Area. One historic record occurs within five miles of the site.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	USFWS: None CDFW: SSC MHCP: Covered	Inhabits a wide range of habitats including chaparral, annual grassland, and coastal sage scrub in association with rocks or coarse gravel.	Moderate/Present: Suitable habitat is present within the Project Area. Two recent records and three historic records of this species have occurred within five miles of the Project Area. The nearest was 4.3 miles southeast of the site from 2002. This species was incidentally captured and confirmed during focused 2022 Pacific pocket mouse trapping surveys.
<i>Choeronycteris mexicana</i> Mexican long-tongued bat	USFWS: None CDFW: SSC MHCP: Not Covered	Typically roosts in caves, can additionally be found in attics, under bridges, and in abandoned buildings.	Low: No suitable habitat is present within the Project Area. One historic record occurs within five miles of the site.
<i>Lasiurus xanthinus</i> western yellow bat	USFWS: None CDFW: SSC MHCP: Not Covered	Prefers regions dominated by pasture or croplands, often roosts in trees with an affinity for roosting under palm tree fronds.	Low: No suitable habitat is present within the Project Area. Potential roosting habitat is present within the buffer. No records occur within five miles of the site.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	USFWS: None CDFW: SSC MHCP: Covered	Inhabits many different types of habitats, diet is dependent on availability of vegetation.	Moderate: Suitable habitat is present within the Project Area. One recent record from 2003 occurs within five miles of the site.

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<p><i>Neotoma lepida intermedia</i> San Diego desert woodrat</p>	<p>USFWS: None CDFW: SSC MHCP: Not Covered</p>	<p>Prefers chaparral and sagebrush scrub habitats.</p>	<p>High/Present: Suitable habitat for this species is present within the Project Area. Several woodrat middens were observed within the Development Area. Four historic records occur within five miles of the site.</p> <p>This species was incidentally captured and confirmed during focused 2022 Pacific pocket mouse trapping surveys.</p>
<p><i>Nyctinomops femorosaccus</i> pocketed free-tailed bat</p>	<p>USFWS: None CDFW: SSC MHCP: Not Covered</p>	<p>During dry season, utilizes water sources with large available surfaces. Roosts in caves, rock crevices and cliff faces.</p>	<p>Presumed Absent: No suitable habitat is present within the Project Area. One historic record occurs within five miles of the site.</p>
<p><i>Perognathus longimembris pacificus</i> Pacific pocket mouse</p>	<p>USFWS: END CDFW: SSC MHCP: Not Covered</p>	<p>Inhabits sandy substrates of coastal sage scrub, coastal dunes, and alluvial plains of marine terraces.</p>	<p>Low/Presumed Absent: Limited suitable habitat is present within the Project Area. This is a narrow endemic species with a limited range. The Project Area is within the historical range of the species. One recent record from 2002 occurs 3.8 southeast of the site in the San Elijo Lagoon.</p> <p>Focused surveys were conducted for this species with negative results.</p>

Special-Status Wildlife Species with Potential to Occur on the Proposed Project

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<p><u>Federal Designations</u> (FESA, USFWS) END: Federally listed, endangered THR: Federally listed, threatened CAN: Federal candidate for listing BCC: Bird of Conservation Concern</p> <p><u>State Designations</u> (CESA, CDFW) END: State-listed, endangered THR: State-listed, threatened SSC: California Species of Special Concern CAN: State candidate for listing FP: Fully Protected WL: Watch List</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), State and Federally Listed Endangered and Threatened Animals of California (CDFW 2022b), Special Animals List (CDFW 2022c), Final MHCP (SANDAG 2003), IPAC Trust Resources List (USFWS 2022a)</p>			