July 6, 2022 13619

Mr. Todd Dwyer
OnPoint Development
7514 Girard Avenue, Suite 1515
La Jolla, California 92037

Subject: Biology Letter Report for 517 Shinohara Lane, City of Chula Vista, California

Dear Mr. Dwyer:

This letter report provides an analysis of potential biological resource impacts associated with the proposed warehouse/distribution building project (project) located in the City of Chula Vista, California (Assessor's Parcel Number 644-040-01-00). This biology letter report also includes a discussion of any potential biological resources that may be subject to regulation under the City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan (Subarea Plan) (City of Chula Vista 2003).

1 Project Location

The study area is 10.03 acres and is located approximately 0.2 miles east of the Interstate 805 (I-805) freeway between Main Street and Olympic Parkway (Figure 1). The site is located on Shinohara Lane accessed from Brandywine Avenue and is located on the U.S. Geological Service 7.5-minute series topographic Imperial Beach quadrangle map. The site exists within an urban portion of the City and is bound on the south and east by industrial buildings, to the west by single-family residences, and to the north by multifamily condominiums (Figure 1).

2 Project Description

The proposed project plans to develop one parcel, consisting of 9.75 vacant acres at 571 Shinohara Lane, generally located north of Main Street, at the terminus of Shinohara Lane and easterly Brandywine Avenue (behind the Curbell Plastics building) in the City of Chula Vista. The site is planned for one parcel and a 195,216 square foot warehouse/distribution building, including a 7,468 square foot leasing office. The proposed building height is 40 feet. Access to the project will be provided via a driveway at the terminus of Shinohara Lane. Due to the topography of the site, retaining walls are expected. The site is General Plan designated IL – Limited Industrial and Zoned ILP – Limited Industrial P. Photos of the site are included in Appendix A.

3 Survey Methods

Dudek conducted the original vegetation mapping and assessed the site for potential jurisdictional features on January 18, 2018 and visited the site again on July 23, 2021 to check the previous mapping. The survey area consists of the vacant parcel and existing roads leading into the site (Figure 1). The vegetation communities and land covers were mapped according to Holland (1986) and Oberbauer (2008). An aerial photograph map (Google

Earth 2018) with a digital overlay of the project boundary was utilized to record vegetation and any sensitive biological resources directly in the field. All plant species and animal species encountered during the survey were identified and recorded. In addition to species actually detected during the surveys, expected wildlife use of the site was evaluated by known habitat preferences of local species and knowledge of their relative distributions in the area. A compiled list of the plant and animal species detected on site during this survey is attached to this letter report as Appendix B and Appendix C, respectively.

On January 18, 2018, Dudek conducted a burrowing owl (*Athene cunicularia*) habitat assessment following the protocol in the Staff Report for Burrowing Owl Mitigation (CDFG 2012), with the exception of the survey buffer. A 150-meter buffer was not surveyed due to the existing residential and commercial development. A total of approximately 2.5 hours were spent on site from 8:00 a.m. to 10:30 a.m. and temperatures ranged from 57° Fahrenheit (F) to 61°F; conditions were clear with little to no wind (0 to –3 mph). The entire site was surveyed on foot by conducting a series of east–west transects to provide 100% cover and look for burrowing owls, their sign, or presence of suitable burrows (>11 centimeters in diameter and >150 centimeters in depth). Transects were walked at a pace that allowed careful observations along the transect route and immediate vicinity. Photographs were taken to record conditions of the site. Potential burrow locations were recorded using GPS, photographed, and documented.

A focused burrowing owl survey was conducted in the non-breeding season on January 25, 2018, following the survey guidelines in the Staff Report for Burrowing Owl Mitigation (CDFG 2012). The site was surveyed from 7:00 a.m. 9:30 a.m. and the temperature ranged from 53°F to 55°F with very light wind (1 to 5 mph). Cloud cover varied between 60% to 70% throughout entire survey. Line transects were walked on foot to ensure 100% visual coverage of the site; lines were spaced between 7 meters to 20 meters apart and adjusted for vegetation height and density. At the start of each transect line, the surrounding area was scanned using binoculars. Special attention was given to areas identified as having potential active burrows determined from the initial burrowing owl habitat assessment.

Dudek botanist Erin Bergman conducted a rare plant survey on June 1, 2022 by walking transects throughout the entire study area. The study area was surveyed between 8:24 a.m. and 1:49 p.m. with temperatures ranging from 67°F to 74°F with very light wind (0–3 mph) and 0% to 10% cloud cover.

4 Survey Results

Existing conditions observed on site suggest that the property has been graded and disturbed. The southern portion of the site is mostly flat, while much of the northern portion is sloped and heavily eroded. There is a small cement drainage ditch that begins near the center of the site and extends approximately 160 meters southeast to the project boundary. In addition, there are two other cement drainage ditches: one runs parallel to the eastern border and the other runs parallel to the southern border of the site. The July 23, 2021 resulted in changes to the original 2018 mapping.

Burrowing owl is known to occur in the area (Unitt 2004); California Natural Diversity Database records are primarily located near Otay Mesa approximately 3 miles east of the project site (CDFW 2021); however, no burrowing owls were observed during the 2018 or 2021 site visits or the focused burrowing owl survey on January 25, 2018.

4.1 Flora

The site supports a very limited amount of native vegetation, most of which is indicative of highly disturbed areas. The site does not provide good quality habitat for native plant species, and is dominated (i.e., 70%) by non-native

perennial and weedy annual species. A total of 64 plants were identified on site (Appendix A). The most common non-native plants identified include Russian thistle (*Salsola tragus*), brome grasses (*Bromus* spp.), and oat grasses (*Avena* spp.). The common native plants are limited to the disturbed Diegan coastal sage scrub and include California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*).

According to the recognized San Diego County vegetation mapping systems (i.e., Holland 1986 and Oberbauer 2008) the site is classified as disturbed Diegan coastal sage scrub, non-native grassland, eucalyptus woodland, disturbed habitat, and urban/developed (Figure 2). The acreages of the vegetation communities and land covers are listed in Table 1. On-site vegetation and land cover mapping is defined and described below.

Table 1. Vegetation Communities and Land Cover within the Study Area

Habitat Type	Tier	Acreage	Mitigation Ratios[1]	Required Mitigation (Ac.)
Disturbed Diegan coastal sage scrub	II	0.54	1:1	0.54
Eucalyptus woodland	IV	0.10	N/A	0
Non-native grassland	III	7.05	0.5:1	3.52
Disturbed habitat	IV	2.06	N/A	0
Urban/Developed	IV	0.29	N/A	0
Total	–	**10.03**	–	**4.06**

[1] The mitigation ratios range is based on the location of the mitigation inside the preserve.

Disturbed Coastal Sage Scrub: Inland Form (dCSS) is a habitat type that consists of low-growing, woody shrubs that are most active in winter and early spring; they are drought-hardy and adapted to low moisture. This vegetation community typically occurs below 1,000 feet. These areas are dominated by California sagebrush, California buckwheat, as well as laurel sumac (*Malosma laurina*), all three of which were identified on site. On site, the percentage of native vegetation on site is less than 40%; the remainder of the vegetation within this area is non-native herbs or small shrubs (e.g., Russian thistle) and is therefore mapped as "disturbed" Diegan coastal sage scrub.

Non-Native Grassland (NNG) is a vegetation community with dense to sparse cover of annual grasses, typically comprised of *Avena*, *Bromus*, *Erodium*, and/or *Brassica* species (Oberbauer 2008). On site, the non-native grassland areas are dominated by slender oat (*Avena barbata*), wild oat (*Avena fatua*), purple false brome (*Brachypodium distachyon*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), and red brome (*Bromus rubens*). Some areas mapped as non-native grassland show evidence of tilling or disturbance, but grasses are still intact and dominant on the landscape.

Disturbed Habitat (DH) is a land cover type that is characterized by a predominance of non-native species, often introduced and established through human action. Disturbed habitat has been physically disturbed, and is no longer recognizable as native or naturalized vegetation, while retaining a soil substrate (Holland 1986 and Oberbauer 2008). The site consists of two types of substrate: Olivenhain cobbly loam and Salinas clay loam (USDA 2018). The City's Subarea Plan identifies disturbed habitat as disturbed lands and is considered Tier IV "other uplands" (City of Chula Vista 2003). These areas are dominated by prickly Russian thistle and slender oat. Tier IV uplands are not considered sensitive under the City's Subarea Plan (City of Chula Vista 2003).

Urban/Developed (DEV) is land that is currently developed or on which construction is currently underway. Whether the structures are permanent, semi-permanent, pavement, hardscape, or irrigated landscape, the land no longer has the ability to support native vegetation due to the extent of its physical modifications (Holland 1986 and

Oberbauer 2008). Ornamental landscapes such as the row of non-native pine trees along the eastern perimeter of the site are identified as urban/developed land.

4.2 Fauna

Due to the predominance of non-native vegetation and site disturbance characteristics, the site has limited potential to provide habitat that support wildlife species. The project site is mostly surrounded by existing development and has no connectivity to habitat areas that would be considered "open space preserve lands" in the City's Subarea Plan. Furthermore, given the residential surroundings, the site is unlikely to serve as a wildlife corridor. Several non-native trees exist along the perimeter of the project site; however, they are small, and it is unlikely that special-status birds (including special-status raptors) would use the site for nesting. There are no prominent rocks, boulders, or features on site that could be used by special-status reptiles. The few wildlife species detected during the survey are listed in Appendix C of this letter report.

A total of 22 wildlife species were observed and identified during the survey. Commonly observed species include white-crowned sparrow (*Zonotrichia leucophrys*), Anna's hummingbird (*Calypte anna*), mourning dove (*Zenaida macroura*), lesser goldfinch (*Spinus psaltria*), killdeer (*Charadrius vociferus*), and common side-blotched lizard (*Uta stansburiana*); one red-tailed hawk (*Buteo jamaicensis*) was seen soaring above the project site.

4.3 Special-Status Species

4.3.1 Special-Status Plants

Tarplants are a group of annual species that have the potential to thrive in areas of disturbance. A summer rare plant pass was completed on June 1, 2022 specifically focused on tarplant species and other late season rare plants. A rare plant reference check was performed for Otay tarplant (*Deinandra conjugens*) on May 31, 2022 within 4 miles of the site. Otay tarplant was observed in full bloom In addition, the reference check location also consisted of populations of San Diego ragweed (*Ambrosia pumila*) a rhizomatous perennial rare plant typically observed year-round. Flowers were also present on this perennial herb. Reference check site photos and videos are saved to Instagram account socalrare_plants (Instagram 2022). After conducting late season rare plant surveys, no special-status species have moderate or high potential to occur onsite due to the sites disturbed nature (including soil disturbance) and consistent mowing and maintenance practices. See Appendix D for potential to occur summaries.

4.3.2 Special-Status Wildlife

Burrowing owl. Although there is potential for burrowing owl to occur, no burrowing owl, occupied sites or burrows, or evidence of recent burrowing owl sign (pellets, scat, feathers, tracks, etc.) were observed on the property during the site visit. Two potential burrowing owl burrows were detected in the northern portion of the site in 2018 (Figure 2); however, these were not observed during the 2021 site visit and one of the areas has been significantly disturbed. Potential California ground squirrel (*Spermophilus [Otospermophilus] beecheyi*) and other rodent burrows were also observed on portions of the site. The site supports marginal habitat for burrowing owls based on the results of the habitat assessment.

Monarch. There is a tiny patch of vegetation mapped as eucalyptus woodland which is too small to support overwintering habitat for monarchs.

Quino checkerspot butterfly. Quino checkerspot butterfly (*Euphydryas editha quino*) is a covered species under the City's Subarea Plan. Per Section 5.2.8.2 in the City's Subarea Plan, "Outside of the Preserve, protocol surveys for quino checkerspot butterfly presence will be required for Development Areas only within Non-Preserve Habitat-Category A east of SR125". The Proposed Project is located west of SR125 and therefore does not require focused surveys. In addition, this small parcel is surrounded by development on all sides lacking the ability for quino checkerspot butterfly to access the site. The site has no quino checkerspot butterfly host plants and lacks nectar plant species. Few flowering species are present onsite and are limited where they occur. In addition, the majority of flowering species are non-native. Finally, the soils onsite are highly disturbed therefore cryptogamic crusts are not present which can be associated with quino checkerspot butterfly.

4.4 Jurisdictional Wetland Resources

No jurisdictional wetland resources are present on site. There are several concrete drainage channels within the interior and along the perimeter of the site used for on-site drainage. These were constructed wholly in uplands (HistoricAerials.com 2022) to support on-site drainage that do not connect to any waters of the State or U.S.

5 Regulatory Context

The municipalities of southwestern San Diego County collaborated in producing the MSCP Subregional Plan (County of San Diego 1998). The MSCP Subregional Plan is implemented through individual Subarea Plans adopted by each jurisdiction in order to receive "take authorization" for impacts to covered species and habitats. The MSCP serves as a Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act of 1973, as well as a Natural Communities Conservation Plan under the Natural Community Conservation Planning Act of 2001. The MSCP, as implemented through the Subarea Plans, allows the participating jurisdictions to authorize take of plant and wildlife species identified within the plan area. The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have authority to regulate the take of threatened, endangered, and rare species. Under the MSCP, the USFWS and CDFW have granted take authorization to the local jurisdictions, including the City, for otherwise lawful actions, such as public and private development, that may incidentally take or harm individual species or their habitat outside of the designated Preserve areas, in exchange for the assembly and management of a coordinated MSCP Preserve. The City of Chula Vista is a participant in the San Diego MSCP through the Chula Vista Subarea Plan.

The MSCP is implemented in Chula Vista through the City's approved MSCP Subarea Plan (City of Chula Vista 2003). Within the City's Subarea Plan, the project site is designated as "Development Area Outside of Covered Projects" (i.e., not designated a preserve or conservation area) (Figure 3). The closest preserve is the Otay River, approximately 0.2 miles to the south and is separated from the project site by Main Street and industrial buildings. Therefore, the site is not adjacent to the preserve and is not subject to land use adjacency guidelines.

As defined by the Subarea Plan, projects within the Development Area outside of Covered Projects planning area shall adhere to the City's Habitat Loss and Incidental Take (HLIT) Ordinance. Consistency with regional resource planning is discussed further below.

5.1 Habitat Loss Incidental Take Ordinance

For projects within Development Areas Outside of Covered Projects that contain sensitive biological resources and for which the project site is greater than 1 acre, the HLIT Ordinance requires a biological evaluation of the resources on site. In compliance with the MSCP Subregional Plan and the Subarea Plan, the City established development standards in the HLIT Ordinance, as a condition of issuance of take authorization by the USFWS and CDFW. The HLIT is consistent with the conservation and mitigation goals of the 1998 MSCP Subregional Plan and the City's Subarea Plan. Furthermore, the HLIT provides standards for development, identifies specific impact thresholds, and defines the mitigation requirements for impacts to native and some non-native communities (e.g., non-native grassland). Impacts to Tier I, II, and III habitats will be mitigated pursuant to HLIT mitigation standards provided in Table 5-3 of the Subarea Plan. Based on the current site conditions, there is 0.54 acre of disturbed Diegan coastal sage scrub and 7.05 acres of non-native grassland that could be impacted by the project. These would require 4.06 acres of mitigation.

The HLIT provides protection of Narrow Endemic Species and wetland impact avoidance/minimization; however, due to the continued disturbance to the site over the years, no Narrow Endemic Species are expected to occur on site, and there are no potential wetlands on site.

Table 2, Table 3, and Table 4 summarize the project's conformity to the Required Findings, General MSCP Development Regulations, and Specific MSCP Land Use and Development Regulations for the HLIT Ordinance.

Table 2 Required Findings for Issuance of an HLIT Permit (Chula Vista Municipal Code 17.35.080)

Required Findings for Issuance of an HLIT Permit (Section 17.35.080):	Analysis	Consistency
The proposed development in the Project Area and associated mitigation are consistent with the Chula Vista MSCP Subarea Plan as adopted on May 13, 2003, and as may be amended from time to time, the MSCP Implementation Guidelines, and the development standards set forth in Section 17.35.100 of the Municipal Code.	Section 5.2.2 HLIT Ordinance of the Subarea Plan (City of Chula Vista 2003) requires issuance of an HLIT permit for "all development within the City's jurisdiction which is not located within the Development Areas of Covered Projects prior to issuance of any land development permit." As such, the entire Project site would require issuance of an HLIT permit. The Project would impact sensitive biological resources within disturbed coastal sage scrub and non-native grassland. Mitigation for these impacts will be in accordance with the ratios in the Subarea Plan. Mitigation measures have been incorporated into the project to compensate for direct and indirect impacts to sensitive vegetation communities. Mitigation for impacts to these habitat types are described in Mitigation Measure MM-BIO-1. Other Mitigation Measures that	Consistent

Table 2 Required Findings for Issuance of an HLIT Permit (Chula Vista Municipal Code 17.35.080)

Required Findings for Issuance of an HLIT Permit (Section 17.35.080):	Analysis	Consistency
	apply include migratory and nesting bird measures. Mitigation for these impacts will be in accordance with the City of Chula Vista MSCP Subarea Plan (HLIT). Prior to issuance of any land development permits, the applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City's MSCP Subarea Plan (City of Chula Vista 2003). In compliance with the City's Subarea Plan, the applicant shall secure mitigation credits within San Miguel Conservation Bank consistent with the ratios specified in Table 1 which are in accordance with the ratios set forth in the Subarea Plan.	
The nature and extent of mitigation required as a condition of the permit is reasonably related to and calculated to alleviate negative impacts created in the Project Area.	Appropriate mitigation measures, consistent with the MSCP, have been proposed and will be implemented for this project and are provided within the Biology Letter Report.	Consistent
Narrow Endemic Findings	There are no narrow endemic species on site.	Consistent
Wetland Findings	There are no wetlands on site.	
Prior to the issuance of a Land Development Permit or Clearing and Grubbing Permit, the project proponent will be required to obtain any applicable state and federal permits, with copies provided to the Director of Planning and Building or his/her designee.	There are no biological resources on site that require state or federal permits.	Consistent
Impacts to wetlands have been avoided and/or minimized to the maximum extent practicable, consistent with the City of Chula Vista MSCP Subarea Plan Section 5.2.4.	There are no wetlands on site.	Consistent
Unavoidable impacts to wetlands have been mitigated pursuant to Section 17.35.110.	There are no wetlands on site.	Consistent

Table 3 General MSCP Development Regulations (CVMC 17.35.090)

General MSCP Development Requirements (Section 17.35.090)	Analysis	Consistency
Overall development within the Project Area including public facilities and circulation shall be located to minimize impacts to Sensitive Biological Resources in accordance with this chapter of the Chula Vista MSCP Subarea Plan and the MSCP Implementation Guidelines.	The project site is located in an otherwise developed area, surrounded by residential and commercial development. Additionally, the site has been repeatedly disturbed. The site has very minimal biological value and does not contribute to adjacent preserves or undeveloped areas.	Consistent
Pursuant to Chapter 15.04 of the Chula Vista Municipal Code, no Land Development or Clearing and Grubbing Permit that allows clearing, grubbing, or grading of Natural Vegetation shall be issued on any portion of a Project Area where impacts are proposed to Wetlands or Listed Non-covered Species until all applicable federal and state permits have been issued.	There are no biological resources on site that require state or federal permits.	Consistent
Impacts to Wetlands shall be avoided to the maximum extent practicable. Where impacts to Wetlands are not avoided, impacts shall be minimized and mitigated pursuant to Section 17.35.110 of the Municipal Code.	There are no wetlands on site.	Consistent
No temporary disturbance or storage of material or equipment is permitted in Sensitive Biological Resources unless the disturbance or storage occurs within an area approved by the City for development or unless it can be demonstrated that the disturbance or storage will not cause permanent habitat loss and the land will be revegetated and restored in accordance with the MSCP Implementation Guidelines.	The project does not propose any temporary disturbance or storage of material or equipment in Sensitive Biological Resource Areas.	Consistent
Grading during wildlife breeding seasons shall be avoided or modified consistent with the requirements of the Chula Vista MSCP Subarea Plan and in accordance with the MSCP Implementation Guidelines.	To avoid any direct impacts associated with construction activities, Mitigation Measure MM-BIO-3 is proposed to encourage construction outside of the breeding season (February 1 through September 15). If construction does occur during the breeding season, specific actions would be taken to avoid impacts consistent with the requirements of the Chula Vista MSCP Subarea Plan and in accordance with the MSCP Implementation Guidelines.	Consistent
All fuel modification brush management zones required as a result of new development and as required by the City Fire Marshal shall be located outside the Preserve.	There are no preserve areas on site or adjacent to the site.	Consistent

Table 4 Specific MSCP Land Use and Development Regulations (CVMC 17.35.100)

Specific MSCP Land Use and Development Requirements (Section 17.35.100)	Analysis	Consistency
Land uses and development are permitted within the 100 percent conservation areas consistent with the Chula Vista MSCP subarea plan and Section 17.35.100 (A).	There are no preserve/conservation areas on site.	N/A
Land uses and development are permitted within the 75 to 100 percent conservation areas consistent with the Chula Vista MSCP subarea plan and Section 17.35.100 (B).	There are no preserve/conservation areas on site.	N/A
Land uses and development are permitted within development areas outside of covered projects consistent with the Chula Vista MSCP subarea plan and Section 17.35.100 (C).	See below.	Consistent
Permitted land uses include those uses permitted in the underlying zone.	The project would be consistent with existing zoning.	Consistent
Encroachment into natural vegetation is not limited except as may be provided by CVMC 17.35.090(A)(2) and/or (A)(3).	The Project would impact sensitive biological resources within disturbed coastal sage scrub and non-native grassland. Mitigation for these impacts will be in accordance with the ratios in the Subarea Plan. Mitigation measures have been incorporated into the project to compensate for direct and indirect impacts to sensitive vegetation communities. Mitigation for impacts to these habitat types are described in Mitigation Measure MM-BIO-1.	Consistent
Development shall avoid impacts to covered narrow endemic species to the maximum extent practicable. A list of the covered narrow endemic species is included in the Chula Vista MSCP subarea plan and the MSCP implementation guidelines. Measures for protection of narrow endemic species shall be required such as management, enhancement, restoration and/or transplantation in accordance with the MSCP implementation guidelines.	There are no narrow endemic species on site.	Consistent

6 Project Impacts

This section addresses direct impacts and indirect impacts that will result from implementation of the project.

Direct Impacts may include both the permanent loss of on-site habitat and the plant and wildlife species that it contains. The current site design assumes impacting the entire project site.

Indirect Impacts refer to off-site and on-site effects that are short-term impacts (i.e., temporary) due to the Project construction or long-term (i.e., permanent) design of the project and the effects it may have to adjacent resources. For this project, it is assumed that the potential indirect impacts resulting from construction activities may include dust, noise, general human presence that may temporarily disrupt species and habitat vitality, and construction-related soil erosion and runoff. No long-term indirect impacts are assumed to occur as the project site is surrounded by urban development such that implementation of the project would not have a long-term effect on adjacent wildlife or suitable habitat. Therefore, long term indirect impacts would be considered less than significant.

Direct Impacts

Vegetation Communities and Land Cover Types

The proposed project would impact the entire site. The acreages and mitigation requirements are summarized in Table 1, above. Urban/developed lands and disturbed habitat provide little native habitat value and foraging opportunities for wildlife and impacts to these vegetation communities/land covers would not be considered significant. No mitigation is required for impacts to eucalyptus woodland, disturbed habitat or urban/developed lands, in accordance with the requirements in the HLIT ordinance.

Direct impacts to 0.54 acres of disturbed Diegan coastal sage scrub and 7.05 acres of non-native grassland would be considered significant and mitigation would be required, according to the requirements and ratios in the HLIT ordinance and Table 5-3 of the MSCP (Table 1). Impacts would be reduced to less than significant through implementation of **MM-BIO-1**.

Waters of the U.S., including Wetlands

No jurisdictional resources were identified within the project impact area, therefore there are no direct impacts to waters of the U.S., including wetlands.

Special-Status Plants

No special-status plants were detected in the project study area during the 2018 or 2021 surveys. While focused rare plant surveys were not conducted, there are no special-status plant species with a moderate or high potential to occur within the project study area and, due to the extent of vegetative disturbance and lack of suitable substrate, special-status plant species are not expected to occur (Appendix D). Therefore, no significant direct impacts to special-status plants are anticipated.

Special-Status Wildlife

Monarch butterfly (*Danaus plexippus*) was observed nectaring on site during the July 2021 site visit. While there are flowering plants, the site lacks this species host plant (*Asclepias* spp.) and suitable overwintering habitat. While burrowing owl has low potential to occur, if this species were to occur on site prior to project activities, impacts to an active nest would be considered significant, absent mitigation. Impacts would be reduced to less than significant through implementation of **MM-BIO-2**.

No other special-status wildlife species were detected during the 2018 or 2021 surveys, and the potential for special-status species to occur in the study area is low due to the disturbed nature of the site (past grading, presence of invasive species, etc.) and the location being surrounded by urban development (Appendix E).

Based on this information, no additional significant direct impacts to special-status wildlife species are anticipated.

All raptors species are considered special-status and may use the site for foraging. Stands of small ornamental trees are present within the project study area and a red-shouldered hawk (*Buteo lineatus*) was seen soaring over the site; however, no nests were observed. Although raptor species have the potential to occur in the study area, lands within the impact footprint are primarily disturbed. The ornamental trees on site are small, and it is unlikely that special-status raptors would use the site for nesting.

Indirect Impacts

Vegetation Communities and Land Covers

The entire site would be impacted so no short-term indirect impacts would occur to on-site vegetation communities. Short-term indirect impacts that may affect the small amount of undeveloped areas adjacent to the project site include dust, invasive plant species, and increased human presence. Typical construction BMPs will limit the spread of dust. Increased human presence is a potential short-term indirect impact. During construction, typical BMPs, such as having trash containers on site, a demarcated limit of work, and contractor education, will limit the potential for trash and other human disturbance. The project plans will incorporate methods to control runoff, including a Storm Water Pollution Prevention Plan (SWPPP) to meet National Pollution Discharge Elimination System (NPDES) regulations. Therefore, short-term indirect impacts to off site, adjacent vegetation communities are not considered significant.

The only potential long-term indirect impact is the change in storm water discharge hydrology downstream of the project. It is assumed that the project will be designed in accordance with NPDES regulations and as such, the project is not expected to result in any long-term indirect adverse impacts.

Waters of the U.S., including Wetlands

No jurisdictional resources were identified within the project impact area, therefore no indirect impacts to waters of the U.S., including wetlands, would occur.

Special-Status Plant Species

Following completion of the vegetation mapping in 2018 and site visit in 2021, there are no special-status plant species with moderate to high potential to occur adjacent to the study area, and therefore, indirect impacts to off-site special-status plant species are not expected to occur.

Special-Status Wildlife Species

Most of the indirect impacts to vegetation communities previously described can also affect special-status wildlife. Wildlife may also be indirectly affected in the short-term by construction-related noise, which can disrupt normal activities and subject wildlife to higher predation risks. Adverse edge effects can cause degradation of habitat quality through the invasion of pest species. Nesting birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities.

The project study area supports suitable vegetation for bird nesting, including trees associated with the street and property landscaping, and vegetated areas mapped onsite. This is nesting habitat for common raptors (e.g., red-tailed hawk) and songbirds protected by the Migratory Bird Treaty Act. Indirect impacts from construction-related noise may occur to breeding wildlife if construction occurs during the breeding season (i.e., February 1 through September 15). Wildlife that would be significantly affected by noise, based on suitable habitat in the project vicinity. Species whose breeding/nesting may be significantly impacted by noise include common raptor species. This impact would be considered a significant impact, absent mitigation. Impacts would be reduced to less than significant through implementation of **MM-BIO-3**.

7 Mitigation

Implementation of the measures below would reduce the impacts to less than significant.

MM-BIO-1: **Compensatory Uplands Mitigation:** Per the HLIT ordinance, 7.59 acres of impacts to sensitive uplands shall be mitigated at the required mitigation ratios (Table 1). To compensate for the loss of 0.54 acre of disturbed coastal sage scrub (Tier II) and 7.05 acres of non-native grassland (Tier III), mitigation would be provided through compensatory upland mitigation.

Compensatory Uplands Mitigation. Prior to the issuance of any grading permit, including clearing, grubbing, grading and construction permits, the project applicant shall mitigate direct impacts to 0.54 acre of coastal sage scrub habitat pursuant to the City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan (Subarea Plan) and Habitat Loss Incidental Take (HLIT) Ordinance. Per the HLIT Ordinance, impacts to coastal sage scrub shall be mitigated at the ratios identified in the MSCP Subarea Plan Table 5-3. Considering the project site is located outside of the preserve, coastal sage scrub mitigation provided through the purchase of credits at the San Miguel Conservation Bank shall be at a 1:1 ratio. The project applicant shall mitigate direct impacts to 7.05 acre of non-native grassland habitat pursuant to the City of Chula Vista MSCP Subarea Plan and HLIT Ordinance. Per the HLIT Ordinance, impacts to non-native grassland shall be mitigated at the ratios identified in the MSCP Subarea Plan Table 5-3. Considering the project site is located outside of the preserve, non-native grassland mitigation through the purchase of credits at the San Miguel Conservation Bank shall be at a 0.5:1 ratio.

The applicant shall secure mitigation credits within the San Miguel Conservation Bank. Mitigation credits shall be for habitat of equivalent or higher habitat value than coastal sage scrub for impacts to coastal sage scrub and equivalent or higher habitat value than non-native grasslands for non-native grassland impacts, with value determined consistent with the Subarea Plan tier system (see Subarea Plan Table 5-3). The applicant is required to provide the City with verification of mitigation credit purchase prior to issuance of any grading permit, including clearing, grubbing, grading and construction permit

MM-BIO-2: **Burrowing Owl Take Avoidance Surveys.** Take avoidance surveys are intended to detect the presence of burrowing owls on a project site at a fixed period in time and inform necessary take

avoidance actions. Take avoidance surveys may detect changes in owl presence such as colonizing owls that have recently moved onto the site, migrating owls, resident burrowing owls changing burrow use, or young of the year that are still present and have not dispersed (CDFG 2012). Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Proposed Project applicant or its designee shall retain a qualified biologist to conduct take avoidance surveys for burrowing owl. The take avoidance survey(s) can be conducted between 14 days and 24 hours prior to initiating ground disturbance activities; however, time lapses between project activities may require subsequent surveys within 24 hours prior to ground disturbance. The development of avoidance and minimization approaches would be informed by monitoring the burrowing owls.

MM-BIO-3: **Avoidance of Nesting Bird Impacts:** To avoid any direct impacts any species identified as a candidate, sensitive, or special status species in the HLIT, MSCP Subregional Plan, or other local or regional plans, policies or regulations, or by the CDFW or USFWS, removal of habitat that supports active nests in the proposed project study area should occur outside of the breeding season of these species (February 1 to September 15), where feasible. If removal of habitat must occur during the nesting season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds within the proposed area of disturbance. The pre-construction survey shall be conducted no more than 72 hours prior to the start of construction activities (including removal of vegetation). If more than 72 hours lapse between the original survey and construction activities that include vegetation removal on all or a portion of the site, a new survey(s) shall be conducted. If nesting birds are detected, a letter report or mitigation plan in conformance with the HLIT and applicable state and federal law (e.g., appropriate follow-up surveys, monitoring schedules, and construction barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs is avoided. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City.

Sincerely,

Callie Amoaku

Callie Amoaku
Senior Biologist

Att.: Figures 1–3
Appendices A–E

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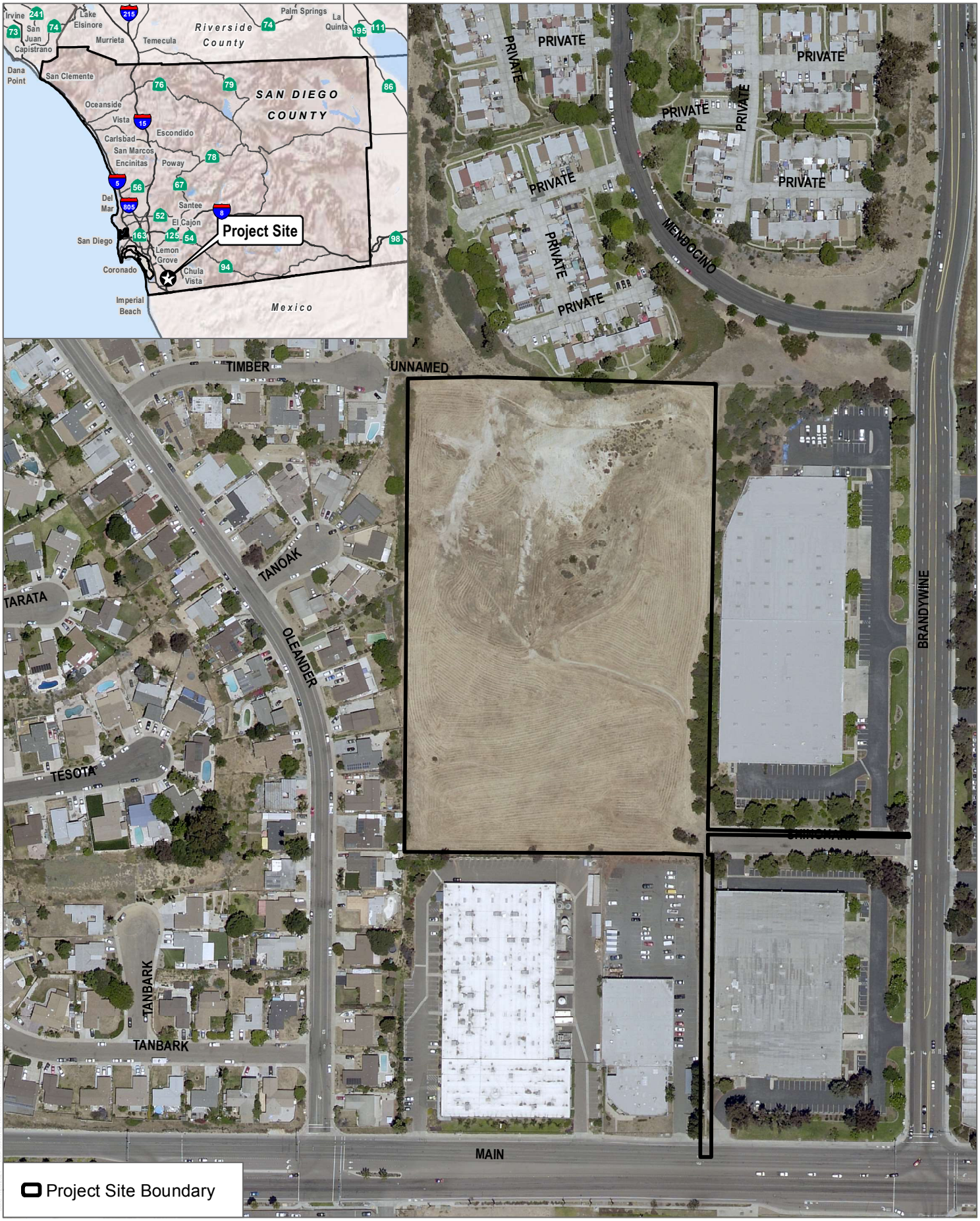
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Figures



SOURCE: USGS 7.5-Minute Series Imperial Beach Quadrangle(s)
Township 18S/Range 1W/Sections 18-19

DUDEK

0 110 220 Feet

FIGURE 1

Project Location

517 Shinohara Lane Project



SOURCE: SANDAG Aerial Imagery Basemap, 2014

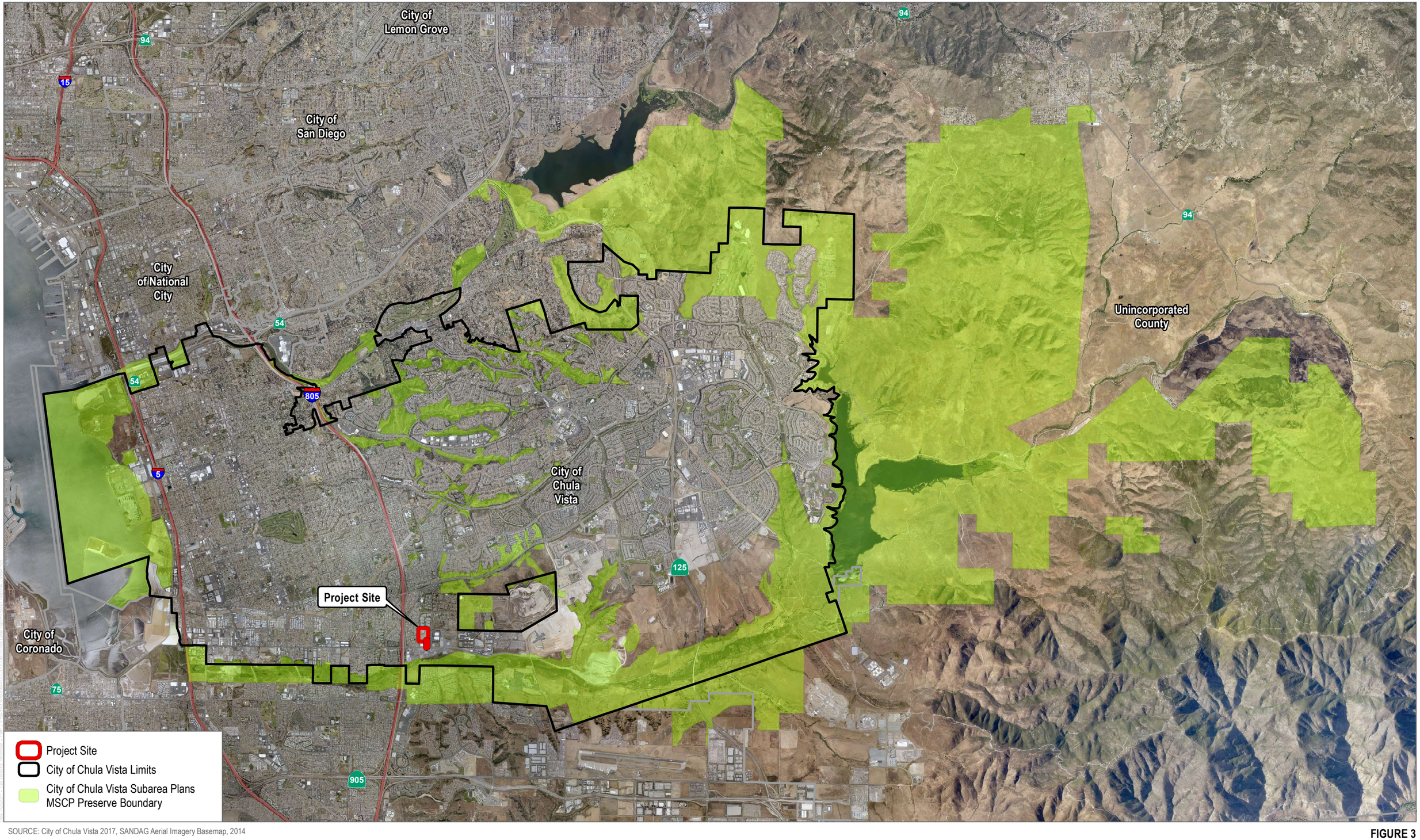
DUDEK

0 50 100 Feet

FIGURE 2

Biological Resources

517 Shinohara Lane



SOURCE: City of Chula Vista 2017, SANDAG Aerial Imagery Basemap, 2014

DUDEK

0 0.5 1 Miles

FIGURE 3

Regional Context

517 Shinohara Lane Project

Appendix A

Photo Log



Photo 1. View of site from the southwest corner facing west



Photo 2. View of site from the south facing southwest



Photo 3. View of site from the south facing west



Photo 4. View of site from the east facing south



Photo 5. View from northwest facing south



Photo 6. View from northwest facing west



Photo 7. View from northeast facing south



Photo 8. View from northeast facing east

Appendix B

Plant Compendium

Plant Species

Eudicots

Conifers

PINACEAE – Pine Family

Pinus halepensis – aleppo pine*

Angiosperms: Eudicots

AIZOACEAE – Fig-Marigold Family

Carpobrotus edulis – hottentot-fig*
Mesembryanthemum crystallinum – crystalline iceplant*
Mesembryanthemum nodiflorum – slender-leaf iceplant*

ASTERACEAE – Sunflower Family

Artemisia californica – coastal sagebrush
Baccharis pilularis ssp. consanguinea – chaparral broom, coyote brush
Baccharis sarothroides – broom baccharis
Deinandra fasciculata – fascicled tarweed
Encelia californica – California encelia
Heterotheca grandiflora – telegraph weed
Isocoma menziesii var. menziesii – spreading goldenbush
Isocoma menziesii var. vernonioides – coastal goldenbush
Centaurea melitensis – tocalote*
Glebionis coronaria – garland/crown daisy*
Hypochaeris glabra – smooth cat's ear*
Lactuca serriola – prickly lettuce*
Logfia gallica – narrow-leaf cottonrose*
Sonchus asper ssp. asper – prickly sow-thistle*
Sonchus oleraceus – common sow-thistle*
Encelia farinosa var. farinosa – brittlebush, incienso
Hedypnois cretica – crete hedypnois*

BORAGINACEAE – Borage Family

Amsinckia intermedia – rancher's fiddleneck

BRASSICACEAE – Mustard Family

Lepidium nitidum – shining peppergrass
Brassica nigra – black mustard*
Hirschfeldia incana – short-pod mustard*
Raphanus sativus – wild radish*

CACTACEAE – Cactus Family

Cylindropuntia prolifera – coast cholla
Opuntia littoralis – coast prickly-pear
Opuntia ficus-indica – mission prickly-pear, Indian-fig*

CARYOPHYLLACEAE – Pink Family

Silene gallica – common catchfly*

CHENOPODIACEAE – Goosefoot Family

Atriplex semibaccata – Australian saltbush*
Chenopodium album – lamb's quarters*
Chenopodium murale – nettle-leaf goosefoot *
Salsola tragus – prickly russian-thistle, tumbleweed*

CONVOLVULACEAE – Morning-Glory Family
Calystegia macrostegia – morning-glory
CRASSULACEAE – Stonecrop Family
Crassula connata – pygmyweed
EUPHORBIACEAE – Spurge Family
Croton setiger – doveweed
Euphorbia maculata – spotted spurge*
FABACEAE – Legume Family
Acmispon glaber var. glaber – coastal deerweed
Medicago lupulina – black medick, yellow trefoil*
Medicago polymorpha – California burclover*
GERANIACEAE – Geranium Family
Erodium botrys – long-beak filaree/storksbill*
Erodium cicutarium – red-stem filaree/storksbill*
MALVACEAE – Mallow Family
Malva parviflora – cheeseweed*
MYRSINACEAE – Myrsine Family
Anagallis arvensis – scarlet pimpernel, poor man's weatherglass*
MYRTACEAE – Myrtle Family
Eucalyptus sideroxylon – red iron bark*
PLUMBAGINACEAE – Leadwort Family
Limonium perezii – Perez's marsh-rosemary*
POLYGONACEAE – Buckwheat Family
Eriogonum fasciculatum var. fasciculatum – coast California buckwheat
Polygonum aviculare – common knotweed, doorweed*
SIMMONDSIACEAE – Jojoba Family
Simmondsia chinensis – jojoba, goatnut
Angiosperms: Monocots
ARECACEAE – Palm Family
Washingtonia robusta – Mexican fan palm*
POACEAE – Grass Family
Avena barbata – slender wild oat*
Avena fatua – wild oat*
Brachypodium distachyon – purple false brome*
Bromus catharticus var. catharticus – rescue grass*
Bromus diandrus – ripgut grass*
Bromus hordeaceus – soft chess*
Festuca myuros – rat-tail fescue*
Festuca perennis – perennial rye grass*
Lamarckia aurea – golden-top*
Poa annua – annual blue grass*
Schismus barbatus – Mediterranean schismus*
Bromus rubens – foxtail chess, red brome*
Hordeum murinum – barley*

INTENTIONALLY LEFT BLANK

Appendix C

Wildlife Compendium

INVERTEBRATE

TARANTULA HAWKS

POMPILIDAE—SPIDER WASPS

Pepsis sp.—tarantula hawk

BIRDS

BLACKBIRDS, ORIOLES & ALLIES

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

FINCHES

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Sayornis saya—Say's phoebe

Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Corvus brachyrhynchos—American crow

Corvus corax—common raven

MOCKINGBIRDS & THRASHERS

MIMIDAE—MOCKINGBIRDS & THRASHERS

Mimus polyglottos—northern mockingbird

PIGEONS & DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

SHOREBIRDS

CHARADRIIDAE—LAPWINGS & PLOVERS

Charadrius vociferus—killdeer

WRENS

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melozone crissalis—California towhee

Zonotrichia leucophrys—white-crowned sparrow

INVERTEBRATES

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, & COPPERS

Hemiargus ceraunus gyas—Edward's blue

Leptotes marina—marine blue

Strymon melinus—gray hairstreak

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Danaus plexippus—monarch

PIERIDAE—WHITES & SULFURS

Pontia protodice—checkered white

REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Uta stansburiana—common side-blotched lizard

Appendix D

Special-Status Plant Species Potential to Occur On Site

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Abronia maritima	red sand-verbena	None/None/4.2/ None	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. No suitable vegetation present.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1/ Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/ 30–3150	Not expected to occur. This species is associated with heavy clay soils (USFWS 2009a).
Acmispon prostratus	Nuttall 's acmispon	None/None/1B.1/ Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June(July)/ 0–35	Not expected to occur. The site is outside of the species ' known elevation range.
Adolphia californica	California adolphia	None/None/2B.1/ None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2430	Low potential to occur. There is coastal scrub present, however the site does not support clay soil suitable for this species.
Agave shawii var. *shawii*	Shaw 's agave	None/None/2B.1/ Covered, Narrow Endemic	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Low potential to occur.There is no suitable coastal bluff scrub present. Also, as stated by Reiser (2001), this species is almost extirpated in the U.S., and occurs in few documented areas.
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1/ None	Coastal scrub/perennial shrub/ Apr–June/180–510	Low potential to occur. There is suitable coastal scrub present, however this perennial shrub would have been observed if present.
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2/ None	Chaparral, Sonoran desert scrub; sandy/ perennial shrub/Aug–Nov/30–1640	Not expected to occur. No suitable vegetation present.
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/ Covered, Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1360	Low potential to occur. This species prefers creek beds, floodplains, and seasonally dry areas (Reiser 2001). San Diego ambrosia can be observed year-round and it was not detected during late season rare plant surveys or vegetation mapping. A rare plant reference check was conducted for this species where it was observed blooming less than 4 miles for the site. The soils onsite are highly disturbed and therefore would make the potential for

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				San Diego ambrosia low. No flood plains, creek beds or vernal pools are present onsite.
Aphanisma blitoides	aphanisma	None/None/1B.2/ Covered	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/ annual herb/Feb–June/0–1000	Low potential to occur.This species prefers coastal bluff and coastal dune habitat (Reiser 2001).
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2/ Covered	Chaparral, Cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/900–5575	Not expected to occur. The site is outside of the species ' known elevation range but can be found at lower elevations. There is no suitable vegetation present and this species is not known to occur within the vicinity (CDFW 2019).
Artemisia palmeri	San Diego sagewort	None/None/4.2/ None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/45–3000	Low potential to occur. There is coastal scrub present, however there is no riparian habitat and this perennial schrub would have been observed if present.
Asplenium vespertinum	western spleenwort	None/None/4.2/ None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/ 590–3280	Not expected to occur. The site is outside of the species ' known elevation range. This species is not known to occur within the vicinity (CDFW 2019).
Astragalus deanei	Dean 's milk-vetch	None/None/1B.1/ Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/ perennial herb/Feb–May/245–2280	Low potential to occur. There is suitable coastal scrub present but the species is generally is found in eastern San Diego County. This species is not known to occur within the vicinity (CDFW 2019).
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1/ Covered	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); often vernally mesic areas/annual herb/ Mar–May/0–165	Not expected to occur. No suitable vegetation present. This species is primarily associated with coastal dune habitat (Reiser 2001). There is only one known occurrence documented within San Diego County (SDNHM 2012), and the species is likely extirpated in San Diego County (Reiser 2001). This species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Atriplex coulteri	Coulter 's saltbush	None/None/1B.2/ None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1510	Low potential to occur. This species prefers sea bluff habitat (Reiser 2001) and inland habitat.
Atriplex pacifica	South Coast saltscale	None/None/1B.2/ None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/ Mar–Oct/0–460	Low potential to occur. There is coastal scrub present, however there are no coastal dunes, coastal bluff scrub, or playas on site.
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2/ None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/perennial stem succulent/ May–June/5–1295	Low potential to occur. While potential suitable habitat is present and this species occurs within the coastal region of south San Diego County, according to Reiser (2001), the primary habitat where this species occurs is maritime succulent scrub, which does not occur within the project site.
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/ Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ perennial bulbiferous herb/Apr–May/ 160–1525	Low potential to occur. There is coastal scrub present, however there are no vernal pools or suitable clay soils.
Brodiaea orcuttii	Orcutt 's brodiaea	None/None/1B.1/ Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5550	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Calandrinia breweri	Brewer 's calandrinia	None/None/4.2/ None	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/ 30–4005	Low potential to occur. There is suitable coatal scrub and loamy soils, however this species is not known to occur within the vicinity (CDFW 2019).
Calochortus dunnii	Dunn 's mariposa lily	None/SR/1B.2/ Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/ (Feb)Apr–June/605–6005	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Camissoniopsis lewisii	Lewis ' evening-primrose	None/None/3/ None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/ annual herb/Mar–May(June)/0–985	Low potential to occur. There is coastal scrub present, however there are no coastal dunes, coastal bluff scrub, or sandy soils present.
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2/ Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/ Apr–June/770–2475	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2/ None	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/ Jan–Apr/1965–3610	Not expected to occur. The site is outside of the species ' known elevation range range but can occur at lower elevation. However, there is no suitable vegetation present and this species is not known to occur within the vicinity (CDFW 2019).
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2/ Covered	Chaparral/perennial evergreen shrub/ Dec–May/0–1245	Not expected to occur. No suitable vegetation present.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt 's pincushion	None/None/1B.1/ None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. No suitable vegetation present.
Chamaebatia australis	southern mountain misery	None/None/4.2/ None	Chaparral (gabbroic or metavolcanic)/ perennial evergreen shrub/Nov–May/980–3345	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird 's-beak	FE/SE/1B.2/ Covered	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. No suitable vegetation present. This species is known to occur on marshes.
Chorizanthe orcuttiana	Orcutt 's spineflower	FE/SE/1B.1/None	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/ Mar–May/5–410	Low potential to occur. This species is primarily associated with coastal chamise chaparral habitat (Reiser 2001). However, there are no undisturbed sandy soils on site (Reiser 2001) and this species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2/ None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/ annual herb/Apr–July/95–5020	Not expected to occur. There is no suitable clay soil or vernal pools present.
Cistanthe maritima	seaside cistanthe	None/None/4.2/ None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/ annual herb/(Feb)Mar–June(Aug)/ 15–985	Low potential to occur. There is coastal scrub present, however there is no coastal bluff scrub or sandy soil on site.
Clarkia delicata	delicate clarkia	None/None/1B.2/ None	Chaparral, Cismontane woodland; often gabbroic/annual herb/ Apr–June/770–3280	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Clinopodium chandleri	San Miguel savory	None/None/1B.2/ Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3525	Not expected to occur. The site is outside of the species ' known elevation range. This species is not known to occur within the vicinity (CDFW 2019).
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/ None	Chaparral, Cismontane woodland/ perennial evergreen shrub/Apr–June/95–2590	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/ None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/ Mar–July/95–2430	Low potential to occur. There is coastal scrub present, however there is no chaparral and suitable clay soil present.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1/ None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/ 5–375	Low potential to occur. This species is primarily associated with coastal chamise chaparral habitat (Reiser 2001). However, there are no undisturbed sandy soils on site (Reiser 2001).
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1/ Covered, Narrow Endemic	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Low potential to occur. Suitable coastal scrub is present; however, this species is primarily associated with xeric hillsides (Reiser 2001).

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				Snake cholla was not present onsite. Only one *Cylindropundia* plant was present onsite. *Cylindropuntia prolifera* was present and was blooming during the late season rare plant survey. Terminal stems were less than 13 cm, flowers were red and fruits had no spines at the time of surveys. *Cylindropuntia californica* var. *californica* has fruit with spines, yellow/green flowers and terminal segments les than 25 cm.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1/ Covered, Narrow Endemic	Coastal scrub, Valley and foothill grassland; clay/annual herb/ (Apr)May–June/80–985	Low potential to occur. This species is associated with clay soils or clay subsoils (USFWS 2009b). No Otay tarplant was present after late season rare plant surveys. Rare plant reference checks were performed for this species less than 4 miles away. Reference checks documented this plant in full bloom.
Deinandra floribunda	Tecate tarplant	None/None/1B.2/ None	Chaparral, Coastal scrub/annual herb/Aug–Oct/225–4005	Low potential to occur. There is coastal scrub present, however, there is no chaparral and this species is not known to occur within the vicinity (CDFW 2019).
Deinandra paniculata	paniculate tarplant	None/None/4.2/ None	Coastal scrub, Valley and foothill grassland, Vernal pools; usually vernally mesic, sometimes sandy/ annual herb/(Mar)Apr–Nov(Dec)/ 80–3085	Low potential to occur. Paniclulate tarplant occurs in northern San Diego county near Camp Pendleton and is a grassland species.
Dichondra occidentalis	western dichondra	None/None/4.2/ None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1640	Low potential to occur. There is coastal scrub present, however there is no chaparral, woodland, or grassland present.
Dicranostegia orcuttiana	Orcutt 's bird 's-beak	None/None/2B.1/ Covered	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr–July(Sep)/ 30–1150	Low potential to occur. This species is primarily associated with seasonally dry drainages adjacent to riparian habitat, and is

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				considered nearly extirpated in San Diego County (Reiser 2001).
Dudleya attenuata ssp. *attenuata*	Orcutt 's dudleya	None/None/2B.1/ None	Coastal bluff scrub, Chaparral, Coastal scrub; rocky or gravelly/perennial herb/ May–July/5–165	Low potential to occur. There is coastal scrub, however this perennial herb would have been observed during surveys.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman 's dudleya	None/None/1B.1/ None	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/ Apr–June/15–1475	Low potential to occur. There is coastal scrub, however this perennial herb would have been observed during surveys.
Dudleya variegata	variegated dudleya	None/None/1B.2/ Covered, Narrow Endemic	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ perennial herb/Apr–June/5–1905	Low potential to occur. There is coastal scrub, however this perennial herb would have been observed during surveys.
Dudleya viscida	sticky dudleya	None/None/1B.2/ Covered	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/ 30–1805	Low potential to occur. There is no rocky habitat present on the site and the species is perennial and would have been observed during surveys if present.This species is not known to occur within the vicinity (CDFW 2019).
Ericameria palmeri var. *palmeri*	Palmer 's goldenbush	None/None/1B.1/ Covered, Narrow Endemic	Chaparral, Coastal scrub; mesic/ perennial evergreen shrub/ (July)Sep–Nov/95–1970	Low potential to occur. Coastal scrub is present; however, this species is primarily associated with mesic chaparral habitat (Reiser 2001).
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/ Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual/ perennial herb/Apr–June/65–2035	Not expected to occur. This species is primarily associated with vernal pools (Reiser 2001), which do not occur on the project site.
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2/Covered	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/ perennial herb/Feb–June/0–195	Low potential to occur. There is coastal scrub present, however there is no suitable sandy soil and this species is not known to occur within the vicinity (CDFW 2019).
Euphorbia misera	cliff spurge	None/None/2B.2/ None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/	Low potential to occur. There is coastal scrub present, however there is no coastal bluff

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
			perennial shrub/Dec–Aug(Oct)/ 30–1640	scrub or rocky soil present, and this perennial shrub would have been observed if present.
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/ perennial stem succulent/ May–June/5–1475	Low potential to occur. There is coastal scrub present, however there is no chaparral on site and this perennial succulent would have been observed if present.
Frankenia palmeri	Palmer 's frankenia	None/None/2B.1/ None	Coastal dunes, Marshes and swamps (coastal salt), Playas/perennial herb/May–July/0–35	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.
Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1/ Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/30–2350	Not expected to occur. No suitable vegetation present. This species is associated with closed-cone coniferous forest and alluvial benches along ephemeral drainages, which does not occur on site (USFWS 2009c).
Galium proliferum	desert bedstraw	None/None/2B.2/ None	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; rocky, carbonate (limestone)/annual herb/Mar–June/3900–5350	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Geothallus tuberosus	Campbell 's liverwort	None/None/1B.1/ None	Coastal scrub (mesic), Vernal pools; soil/ephemeral liverwort/N.A./ 30–1970	Low potential to occur. There is coastal scrub present, however there are no vernal pools and this species is not known to occur within the vicinity (CDFW 2019).
Grindelia hallii	San Diego gumplant	None/None/1B.2/ None	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/May–Oct/605–5725	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.
Harpagonella palmeri	Palmer 's grapplinghook	None/None/4.2/ None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3135	Low potential to occur. There is coastal scrub present, however there is no grassland or suitable clay soil on site.

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1/Covered	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4920	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1/None	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4020	Low potential to occur. There is coastal scrub present, however there is no chaparral or coastal dunes on site.
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/None/4.2/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610	Low potential to occur. There is coastal scrub present, however there is no chaparral, woodland, or grassland present.
Hordeum intercedens	vernal barley	None/None/3.2/None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/15–3280	Low potential to occur. There is coastal scrub present, however there are no saline flats and depressions, and this species is not known to occur within the vicinity (CDFW 2019).
Hosackia crassifolia var. *otayensis*	Otay Mountain lotus	None/None/1B.1/None	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May–Aug/1245–3295	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/30–445	Low potential to occur. There is coastal scrub present, however there is no sandy soil and this perennial shrub would have been observed if present.
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/None	Marshes and swamps, Playas/perennial herb/Apr–Oct/30–1640	Not expected to occur. No suitable vegetation present.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2955	Not expected to occur. No suitable vegetation present.
Lasthenia glabrata ssp. *coulteri*	Coulter 's goldfields	None/None/1B.1/None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/0–4005	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Lepechinia ganderi	Gander 's pitcher sage	None/None/1B.3/ Covered, Narrow Endemic	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/June–July/1000–3295	Not expected to occur. The site is outside of the species ' known elevation range. This species is not known to occur within the vicinity (CDFW 2019).
Lepidium virginicum var. *robinsonii*	Robinson 's pepper-grass	None/None/4.3/ None	Chaparral, Coastal scrub/ annual herb/Jan–July/0–2905	Low potential to occur. There is coastal scrub present, however the site is disturbed and and not suitable for this species.
Leptosyne maritima	sea dahlia	None/None/2B.2/ None	Coastal bluff scrub, Coastal scrub/ perennial herb/Mar–May/15–490	Low potential to occur. There is coastal scrub, however there is no coastal bluff scrub and this perennial herb would have been observed if present.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None/4.2/ None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; openings/perennial bulbiferous herb/Mar–July(Aug)/95–5905	Low potential to occur. There is coastal scrub, however there is no forest or riparian woodland, and this species is not known to occur within the vicinity (CDFW 2019).
Lycium californicum	California box-thorn	None/None/4.2/ None	Coastal bluff scrub, Coastal scrub/perennial shrub/ (Dec)Mar,June,July,Aug/15–490	Low potential to occur. There is coastal scrub present, however there is no coastal bluff scrub and this perennial shrub would have been observed if present.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/ None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/ 45–3510	Low potential to occur. There is coastal scrub present, however there is no woodland, grassland, or vernal pools on site.
Mobergia calculiformis	light gray lichen	//3/None	Coastal scrub (?); On rocks/crustose lichen (saxicolous)/N.A./30–35	Not expected to occur. The site is outside of the species ' known elevation range. This species is not known to occur within the vicinity (CDFW 2019).
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2/ Covered	Chaparral, Cismontane woodland/ perennial rhizomatous herb/ June–Aug/980–5165	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present. This species

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				is not known to occur within the vicinity (CDFW 2019).
Monardella stoneana	Jennifer 's monardella	None/None/1B.2/ None	Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian scrub; usually rocky intermittent streambeds/perennial herb/ June–Sep/30–2590	Low potential to occur. There is coastal scrub present, however there is no riparian scrub or stream beds present on site. This species is not known to occur within the vicinity (CDFW 2019).
Monardella viminea	willowy monardella	FE/SE/1B.1/ Covered, Narrow Endemic	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/ perennial herb/June–Aug/160–740	Low potential to occur. This species is a geographically narrow endemic species restricted to three watersheds north of Kearny Mesa, and therefore the site is outside of the species known geographic range (USFWS 2012). This species is not known to occur within the vicinity (CDFW 2019).
Mucronea californica	California spineflower	None/None/4.2/ None	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy/annual herb/Mar–July(Aug)/0–4595	Low potential to occur. There is coastal scrub present, however there are no coastal dunes and this species is not known to occur within the vicinity (CDFW 2019).
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1/ Covered	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/ Mar–June/65–2100	Not expected to occur. No suitable vegetation present.
Nama stenocarpa	mud nama	None/None/2B.2/ None	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/15–1640	Not expected to occur. No suitable vegetation present. This species is associated with the muddy banks of lakes and ponds (Reiser 2001).
Navarretia fossalis	spreading navarretia	FT/None/1B.1/ Covered	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/annual herb/ Apr–June/95–2150	Not expected to occur. No suitable vegetation present. This species is primarily associated with vernal pools (Reiser 2001) which do not occur on the project site.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1/ None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/ Apr–July/5–3970	Not expected to occur. This species is restricted to vernal pools (Reiser 2001), which do not occur on the project site. This species is

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				not known to occur within the vicinity (CDFW 2019).
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/ None	Coastal dunes/annual herb/Apr–Sep/ 0–330	Not expected to occur. No suitable vegetation present.
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2/ None	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/(Mar)Apr–May/-160–1310	Not expected to occur. No suitable vegetation present.
Ophioglossum californicum	California adder 's-tongue	None/None/4.2/ None	Chaparral, Valley and foothill grassland, Vernal pools (margins); mesic/perennial rhizomatous herb/ (Dec)Jan–June/195–1720	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/ Covered	Vernal pools/annual herb/ Apr–Aug/45–2165	Not expected to occur. No suitable vegetation present. This species is restricted to vernal pools (USFWS 2011); however, vernal pools do not occur on site.
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1/ None	Chaparral/perennial evergreen shrub/ Jan–Apr/180–2625	Not expected to occur. No suitable vegetation present.
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2/ None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1000	Low potential to occur. This species is primarily associated with coastal bluff scrub and coastal dune habitat (Reiser 2001).
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2/ None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070	Low potential to occur. There is coastal scrub present, however there is no riparian woodland or chaparral, and this species is not known to occur within the vicinity (CDFW 2019).
Phacelia stellaris	Brand 's star phacelia	None/None/1B.1/ None	Coastal dunes, Coastal scrub/ annual herb/Mar–June/0–1310	Low potential to occur. There is coastal scrub present, however there are no coastal dunes on site.

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	None/None/4.3/ None	Chaparral; Gabbroic, granitic, clay/ evergreen shrub/May–Aug/0–5575	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Piperia cooperi	chaparral rein orchid	None/None/4.2/ None	Chaparral, Cismontane woodland, Valley and foothill grassland/ perennial herb/Mar–June/45–5200	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/ Covered	Vernal pools/annual herb/Mar–July/ 295–655	Not expected to occur. No suitable vegetation present. This species is restricted to vernal pools (USFWS 2010); however, no vernal pools occur on site. This species is not known to occur within the vicinity (CDFW 2019).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1/ Covered	Vernal pools/annual herb/May–July/ 295–820	Not expected to occur. No suitable vegetation present.
Quercus dumosa	Nuttall 's scrub oak	None/None/1B.1/ None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/ Feb–Apr(May–Aug)/45–1310	Low potential to occur. Suitable coastal scrub habitat is present; however, this perennial species is associated primarily with chaparral habitats (Reiser 2001).
Quercus engelmannii	Engelmann oak	None/None/4.2/ None	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/ Mar–June/160–4265	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2/ None	Chaparral, Cismontane woodland/ perennial evergreen shrub/Feb–Apr/ 95–1150	Not expected to occur. No suitable vegetation present.
Romneya coulteri	Coulter 's matilija poppy	None/None/4.2/ None	Chaparral, Coastal scrub; Often in burns/ perennial rhizomatous herb/ Mar–July(Aug)/65–3935	Low potential to occur. There is coastal scrub present, however there is no chaparral and this species is not known to occur within the vicinity (CDFW 2019).
Rosa minutifolia	small-leaved rose	None/SE/2B.1/ Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/490–525	Not expected to occur. The site is outside of the species ' known elevation range.
Salvia munzii	Munz 's sage	None/None/2B.2/ None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495	Not expected to occur. The site is outside of the species ' known elevation range. This

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
				species is not known to occur within the vicinity (CDFW 2019).
Selaginella cinerascens	ashy spike-moss	None/None/4.1/ None	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Low potential to occur. There is coastal scrub present, however there is no chaparral and this perennial herb would have been observed if present.
Senecio aphanactis	chaparral ragwort	None/None/2B.2/ None	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/ annual herb/Jan–Apr(May)/45–2625	Low potential to occur. There is limited suitable coastal scrub present, however suitable alkaline soils do not occur on site.
Sphaerocarpos drewiae	bottle liverwort	None/None/1B.1/ None	Chaparral, Coastal scrub; openings, soil/ephemeral liverwort/N.A./ 295–1970	Low potential to occur. There is coastal scrub present, however there is no chaparral or ephemeral channels, and this species is not known to occur within the vicinity (CDFW 2019).
Stemodia durantifolia	purple stemodia	None/None/2B.1/ None	Sonoran desert scrub (often mesic, sandy)/perennial herb/ (Jan)Apr,June,Aug,Sep,Oct,Dec/ 590–985	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.
Stipa diegoensis	San Diego County needle grass	None/None/4.2/ None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/ 30–2625	Low potential to occur. There is coastal scrub present, however there is no chaparral or rocky habitat onsite and this perennial herb would have been observed if present.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3/ None	Chaparral, Lower montane coniferous forest/perennial herb/ May–Aug/2195–8200	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.
Stylocline citroleum	oil neststraw	None/None/1B.1/ None	Chenopod scrub, Coastal scrub, Valley and foothill grassland; clay/ annual herb/Mar–Apr/160–1310	Low potential to occur. There is coastal scrub present, however there is no grassland or suitable clay soil on site, and this species is not known to occur within the vicinity (CDFW 2019).
Suaeda esteroa	estuary seablite	None/None/1B.2/ None	Marshes and swamps (coastal salt)/perennial herb/(May)July–Oct(Jan)/ 0–15	Not expected to occur. The site is outside of the species ' known elevation range and there is no suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State/ CRPR/MSCP Subarea Plan)	Primary Habitat Associations/Life Form/ Blooming Period/Elevation Range (feet)	Potential to Occur
Tetracoccus dioicus	Parry 's tetracoccus	None/None/1B.2/ Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3280	Not expected to occur. The site is outside of the species ' known elevation range.
Tortula californica	California screw-moss	None/None/1B.2/ None	Chenopod scrub, Valley and foothill grassland; sandy, soil/moss/N.A./ 30–4790	Not expected to occur. No suitable vegetation present.
Viguiera laciniata	San Diego County viguiera	None/None/4.3/ None	Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460	Low potential to occur. There is coastal scrub present, however there is no chaparral and this perennial shrub would have been observed if present.

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Appendix E

Special-Status Wildlife Species Potential to Occur On Site

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC/Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. No suitable wash, stream channel, or riparian area present. This species is not known to occur within the vicinity (CDFW 2019).
Spea hammondii	western spadefoot	None/SSC/None	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Not expected to occur. No suitable ephemeral wetland or vernal pool present.
Reptiles				
Anniella stebbinsi	southern California legless lizard	None/SSC/None	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. There is some suitable vegetation present onsite, however the habitat is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Arizona elegans occidentalis	California glossy snake	None/SSC/None	Commonly occurs in desert regions throughout southern California. Prefers open sandy areas with scattered brush. Also found in rocky areas.	Low potential to occur. There is some brush present, however there are no sandy soils.
Aspidoscelis hyperythra	orange-throated whiptail	None/WL/Covered	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Low potential to occur. There is some suitable vegetation present onsite, however the habitat is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Low potential to occur There is some suitable vegetation present onsite, however the habitat is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. In addition, this species is not known to occur within the vicinity (CDFW 2019).
Chelonia mydas	green sea turtle	FT/None/None	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds	Not expected to occur. No suitable waters present.
Crotalus ruber	red diamondback rattlesnake	None/SSC/None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Low potential to occur. There is coastal scrub present, however there is no chaparral or rocky grassland on site.
Masticophis fuliginosus	Baja California coachwhip	None/SSC/None	In California restricted to southern San Diego County, where it is known from grassland and coastal sage scrub. Open areas in grassland and coastal sage scrub.	Low potential to occur. There is some suitable vegetation present onsite, however the habitat is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Phrynosoma blainvillii	Blainville ’s horned lizard	None/SSC/Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Low potential to occur. There is limited coastal scrub present, however it is disturbed and the site is surrounded by urban development with no connectivity to other natural areas. In addition, there is no chaparral, grassland, or sandy soils.
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/None	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Not expected to occur. No suitable vegetation present.
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC/None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Low potential to occur. There is some suitable vegetation present onsite, however the habitat is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. In addition, this species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Thamnophis hammondii	two-striped gartersnake	None/SSC/None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. No suitable vegetation present.
Birds				
Accipiter cooperii (nesting)	Cooper ’s hawk	None/WL/Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Low potential to occur. No suitable nesting or foraging habitat present.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST/Covered	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable vegetation present.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. There is coastal scrub present, however there are no rocky and grassy patches on site.
Artemisiospiza belli belli	Bell ’s sage sparrow	BCC/WL/None	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Not expected to occur. There are no unfragmented patches of chamise present. This species is not known to occur within the vicinity (CDFW 2019).
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/SSC/Covered	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur. Protocol surveys for the species were conducted and no suitable burrows were identified on the site.
Buteo swainsoni (nesting)	Swainson ’s hawk	BCC/ST/Covered	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Campylorhynchus brunneicapillus sandiegensis (San Diego & Orange Counties only)	coastal cactus wren	BCC/SSC/Covered	Southern cactus scrub patches	Not expected to occur. No suitable vegetation present.
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/Covered	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. No suitable vegetation present and the site is not coastal and contains no saline or alkaline features.
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Low potential to occur. There is some suitable foraging habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/None	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Coturnicops noveboracensis	yellow rail	BCC/SSC/None	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Eremophila alpestris actia	California horned lark	None/WL/None	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Low potential to occur. This species is not known to occur within the vicinity (CDFW 2019). Horned larks favor bare ground or areas with short grass or sparse vegetation. The site consists mostly of disturbed non-native weed species and non-native grasses. On June 1, 2022, grasses were over 1 ft tall in many areas offering not habitat for California horned lark. Rip gut brome is a dominant grass. No horned larks were observed, urban development surrounds the site. This parcel is a small expanse in a highly developed area.
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/FP, SDL/Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Low potential to occur. The site is primarily disturbed and surrounded by urban development with little to no hunting opportunities for this species.
Icteria virens (nesting)	yellow-breasted chat	None/SSC/None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. There is no suitable habitat present. This species is not known to occur within the vicinity (CDFW 2019).
Laterallus jamaicensis coturniculus	California black rail	BCC/FP, ST/None	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. No suitable vegetation present.
Pandion haliaetus (nesting)	osprey	None/WL/None	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to occur. No suitable water resources present for foraging. This species is not known to occur within the vicinity (CDFW 2019).
Passerculus sandwichensis beldingi	Belding 's savannah sparrow	None/SE/Covered	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Pelecanus occidentalis californicus (nesting colonies & communal roosts)	California brown pelican	FDL/FP, SDL/Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Phalacrocorax auritus (nesting colony)	double-crested cormorant	None/WL/None	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Low potential to occur. The site is surrounded by urban development and lacks habitat for this species. The few coastal sage scrub plants are so small (around 2-12 inches tall) and spread out so much that coastal California gnatcatcher would not use this site. The site consists almost entirely of disturbed non-native grassland. There may be suitable habitat in undeveloped areas further northeast from this site.
Rallus obsoletus levipes	Ridgway 's rail	FE/SE, FP/Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable vegetation present.
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Sternula antillarum browni (nesting colony)	California least tern	FE/FP, SE/Covered	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Vireo bellii pusillus (nesting)	least Bell 's vireo	FE/SE/Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No suitable vegetation present.
Fishes				
Oncorhynchus mykiss irideus pop. 10	southern steelhead - southern California DPS	FE/None/None	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The site is outside of the species' known geographic range and there are no suitable water resources present.
Mammals				
Antrozous pallidus	pallid bat	None/SSC/None	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. There are no rocky outcrops present.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/None	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. No suitable vegetation present.
Corynorhinus townsendii	Townsend 's big-eared bat	None/SSC/None	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Eumops perotis californicus	western mastiff bat	None/SSC/None	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. There are no canyons or cliffs present on the site.
Lasiurus blossevillii	western red bat	None/SSC/None	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Not expected to occur. No suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2019).
Lasiurus xanthinus	western yellow bat	None/SSC/None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. No suitable vegetation present for roosting or foraging. This species is not known to occur within the vicinity (CDFW 2019).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC/None	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. There are no rock outcrops or suitable desert habitats on the site.

Scientific Name	Common Name	Status (Federal/State/ MSCP Subarea Plan)	Habitat	Potential to Occur
Nyctinomops macrotis	big free-tailed bat	None/SSC/None	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. There are no rocky outcrops present on the site.
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. There are no suitable fine-grained sandy soils present onsite.
Taxidea taxus	American badger	None/SSC/Covered	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas.
Invertebrates				
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. There are no vernal pools on the site.
Callophrys thornei	Thorne's hairstreak	None/None/Covered	Interior cypress woodland dominated by host plant *Hesperocyparis forbesii* (Tecate cypress)	Not expected to occur. There is no suitable vegetation on the site. This species is not known to occur within the vicinity (CDFW 2019).
Danaus plexippus pop. 1	monarch	FCNone/None	Wind-protected tree groves with nectar sources and nearby water sources	Observed flying on site in 2021. No host plants are present. Only a few Eucalyptus trees are present. Overwintering typically occurs with larger patches of Eucalyptus. This site is not suitable.
Euphydryas editha quino	quino checkerspot butterfly	FE/None/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta*, *Antirrhinum*	Not expected to occur. No suitable vegetation present. Quino checkerspot butterfly (*Euphydryas editha quino; QCB*) is a covered species under the City's Subarea Plan. Per Section 5.2.8.2 in the City's Subarea Plan, "Outside of the Preserve,

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			coulterianum, and *Plantago patagonica* (Silverado Occurrence Complex)	protocol surveys for QCB presence will be required for Development Areas only within Non-Preserve Habitat-Category A east of SR125". The Proposed Project is located west of SR125 and therefore does not require focused surveys. In addition, this small parcel is surrounded by development on all sides lacking the ability for QCB to access the site. The site has no QCB host plants and lacks nectar plant species. Few flowering species are present onsite and are limited where they occur. In addition, the majority of flowering species are non-native. Finally, the soils onsite are highly disturbed therefore cryptogamic crusts are not present which can be associated with QCB.
Lycaena hermes	Hermes copper	FC/None/None	Mixed woodlands, chaparral, and coastal scrub	Low potential to occur. There is some suitable habitat present onsite, however it is primarily disturbed and the site is surrounded by urban development with no connectivity to other natural areas. This species is not known to occur within the vicinity (CDFW 2019).
Panoquina errans	wandering skipper	None/None/Covered	Saltmarsh	Not expected to occur. No suitable vegetation or habitats present.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/Covered	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pools present on the project site.