Appendix D

Biological Resources Information

MRS Environmental

December 22, 2022

Mr. Eric Hughes
County of San Luis Obispo
Department of Planning and Building
976 Osos Street, Room 300
San Luis Obispo, Ca 93408

Re: **Determination of Unmapped ESHA at the P66 Refinery**

Dear Mr. Hughes:

Per your request, MRS Environmental Inc. (MRS) Senior Botanist, Lauren Brown, reviewed existing documents and conducted a site visit on December 8, 2022, for the purpose of assessing whether areas within the Phillips 66 (P66) Refinery property should be categorized as unmapped Environmentally Sensitive Habitat Areas (ESHA), as defined by San Luis Obispo (SLO) County and the California Coastal Commission (CCC). The Biological Resources Technical Report for the Santa Maria Refinery Demolition and Remediation Project, prepared by ERM-West in October 2022 (ERM Report) was reviewed, as well as several other recent documents describing biological resources in the vicinity of the P66 Refinery and the Guadalupe-Nipomo Dunes.

Title 23 of the SLO County Code, Coastal Zone Land Use Ordinance, Local Coastal Program (SLO Co 2022), defines Unmapped ESHA as:

> A type of Sensitive Resource Area where plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could easily be disturbed or degraded by human activities and development. They include, but are not limited to, known wetlands, coastal streams and riparian vegetation, terrestrial and marine habitats that may not be mapped as Land Use Element combining designations. The existence of Unmapped ESHA is determined by the County at or before the time of application acceptance and shall be based on the best available information. Unmapped ESHA includes but is not limited to:
>
> a. Areas containing features or natural resources when identified by the County or County approved expert as having equivalent characteristics and natural function as other mapped environmental sensitive habitat areas;
>
> b. Areas previously known to the County from environmental experts, documents or recognized studies as containing ESHA resources;
>
> c. Other areas commonly known as habitat for species determined to be threatened, endangered, or otherwise needing protection.

Note: If the Phillips 66 Remediation and Demolition Project is considered a restoration project it would be allowed within an ESHA area as per Section 23.07.170 (e)(1)(v) of Title 23 of the San Luis Obispo County Code, Coastal Zone Land Use Ordinance (CZLUO), Local Coastal Program (SLO County 2022).

The ERM Report described and mapped nine vegetation alliances within the P66 refinery, primarily between the perimeter fence and the developed/disturbed areas of the refinery, including black sage scrub, California buckwheat scrub, silver dune lupine-mock heather scrub, poison oak scrub, ruderal, iceplant mats, arroyo willow thickets, eucalyptus groves, and ornamental plants. These are described as disturbed and/or degraded and not equivalent to the mapped ESHA west of the refinery in terms of quality of plant communities and

diversity of plant species, although several sensitive plant and wildlife species were observed during surveys or identified as having the potential to occur (ERM 2022). Based on the review of the ERM Report, the site visit, our experience in the project area, and existing documents that describe biological resources in the project vicinity, it is our opinion that even though the vegetation alliances mapped within the P66 refinery have less cover and diversity of dune scrub plant species as adjacent mapped ESHA, they do exhibit physical and biological characteristics that meet the definition of unmapped ESHA, defined above. Additional discussion on how the criteria were met to make this determination is provided below.

Sensitive habitats and resource areas

Background. The California Department of Fish and Wildlife (CDFW), working with the California Native Plant Society (CNPS), has been revising the previously used Holland (1986) vegetation classification system to be consistent with state and national standards. The current (and preferred) vegetation classification system is described in the Manual of California Vegetation, 2nd edition (MCV2) (Sawyer *et al.*, 2009). It is a hierarchical classification based on dominant plant species grouped, at the lowest level, into plant alliances and plant associations (several associations may be under an alliance). A ranking system is then applied to determine if a plant alliance or association should be considered sensitive. While the MCV2 vegetation classification system is intended to replace the Holland system, there are many areas of California that have not yet been mapped, including Guadalupe-Nipomo Dunes. For unclassified areas of the state, an alliance or association may be identified as provisional when sufficient data exists to propose the vegetation type. However, there may not be enough research and regional information to rank the status of the provisional alliance or association and sensitive natural communities identified in the California Natural Diversity Database (CNDDB), which still uses the Holland system should still be addressed under CEQA (CDFW 2022). The limitations of the MCV2 had been acknowledged in previous Biological Resource Assessments conducted within the P66 property, outside the facility fence and Provisional alliances and sensitivity rankings were assigned (Arcadis 2015). The CNDDB identifies Central Dune Scrub as a sensitive natural community occurring within and outside the northern P66 facility fence as well as in the mapped ESHA to the west. In addition to the CDFW, SLO County and the CCC also identify certain vegetation types or wildlife habitats as sensitive.

The topography and sandy soils are the most easily observable physical characteristics of dune habitats and contribute to the diversity of habitat types and species present in the Guadalupe Nipomo Dunes Complex and influence the microhabitats that support some of the rarer plant and animal species that occur, including the Nipomo Mesa lupine (*Lupinus nipomensis*), listed as endangered by the US Fish and Wildlife Service (USFWS) and CDFW and a California Rare Plant Rank (CRPR) List 1B species (rare and endangered in California and elsewhere). A recent study conducted by the Land Conservancy of San Luis Obispo County (LCSLO) included a comprehensive research and modelling project based on a variety of physical and biological elements (with input from 32 experts) to develop a Dune Protected Areas (DPAs) Network Restoration Plan for the purpose of identifying and prioritizing important ecological areas for future protection or restoration within the Guadalupe Nipomo Dunes Complex. The Nipomo Lupine DPA, which is primarily within Phillips 66 property (outside the facility), was identified during this process because it supports populations of Nipomo Mesa lupine and a large population of sand almond (*Prunus fasciculata*), which provides important substrate for several lichen species. Sand almond was also recognized during the DPA planning process because of its limited distribution in the Guadalupe Nipomo Dunes Complex and continued decline in local dune habitats. The LCSLO project considered multiple factors (environmental and management consideration) in selecting DPAs, including plant and animal diversity, lack of disturbance (including invasive species and non-conservation land uses), presence of special status or other important species, proximity to other DPAs, as well as other factors. Although most of the Nipomo lupine DPA is on private property and many areas are dominated by invasive

veldt grass, the Nipomo lupine DPA was identified as a priority because of the limited distribution of the species and threat associated with changing habitat conditions (LCSLO 2018).

Existing conditions: The P66 refinery is located within dune habitats that have been modified by the presence of the facility as well as other human activities, such as years of grazing and residential development, but still exhibits both physical and biological characteristics of the more pristine dunes in the mapped ESHA on the west side facility. Nine vegetation alliances were mapped within the P66 refinery, mostly using the MCV2 classification system, primarily between the perimeter fence and the developed/disturbed areas of the refinery, including **black sage scrub, California buckwheat scrub, silver dune lupine-mock heather scrub**, poison oak scrub, ruderal, iceplant mats, **arroyo willow thickets**, eucalyptus groves, and ornamental plants (those in **bold** were identified as sensitive resources, ERM 2022). [Note: For consistency with CDFW guidelines and the classification system described in MCV2, recommend using *Bromus diandrus-Ehrharta calycina* (veldt grass)-mixed herb provisional association in place of ruderal for veldt grass dominated non-native grassland plant communities in the project vicinity. Since there is no community alliance or association for veldt grass dominated habitats, the *Bromus diandrus-Ehrharta calycina* (veldt grass)-mixed herb provisional association was previously used for this plant community (Arcadis 2015).]

The ERM Report identified several sensitive plant species within the P66 facility boundary including two locations for Nipomo lupine and several other plant species reported from the project site include Blochman's leafy daisy (*Erigeron blochmaniae,* CRPR 1B), sand almond (CRPR 4, a watch list), Blochman's groundsel (*Senecio blochmaniae,* CRPR 4), California spineflower (*Mucronea californica*, CRPR 4), Nuttall's locoweed (*Astragalus nuttallii* var. *nuttallii,* CRPR 4), and Monterey Pine (*Pinus radiata,* CRPR 1B). Dune larkspur (*Delphinium parryi* subsp. *blochmaniae,* CRPR 1B), suffrutescent wallflower (*Erysimum suffrutescens,* CRPR 4), and coastal goosefoot (*Chenopodium littoreum,* CRPR 1B) have been reported from the project area and also have potential to occur. Sandy soils on the site provide suitable habitat for Coast or Blainville's horned lizard (*Phrynosoma blainvillii*) and Northern California legless lizard (*Anniella pulchra),* both CDFW Species of Special Concern. Taller trees such as Monterey pines and eucalyptus could attract birds including raptors that nest in taller trees. The shrub dominated habitats may be attractive nesting areas for species that either are ground nesting or nest in low shrubs (ERM 2022).

The ERM Report describes the vegetation alliances within and adjacent to the perimeter fence as disturbed and/or degraded and not equivalent to the mapped ESHA west of the refinery in terms of quality of plant communities and diversity of plant species. However, the lack of diversity of the plant species does not appear to be a limiting factor in the ability of these areas to function the same as the mapped ESHA and provide habitat for special status species and other ESHA resources. The black sage scrub, California buckwheat scrub, and silver dune lupine-mock heather scrub are equivalent to Central Dune Scrub and identified by CDFW as sensitive natural communities. It should also be noted that Nipomo lupine, one of the rarest and most endangered species within San Luis Obispo County, occurs in a vegetation type that would be considered disturbed and low quality although the physical conditions closely resemble the topography and soils within mapped ESHA. By SLO County and CCC definition, the arroyo willow thicket is a Sensitive Resource Area (i.e., known wetlands, coastal streams, and riparian vegetation). The wetland that supports the arroyo willow thicket is an excavated evaporation and infiltration basin for the refinery's non-contact (i.e., nonindustrial) stormwater and after project completion the surface water input will be limited to direct precipitation, and it may dry up (depending on depth to groundwater and whether willow roots have reached it). Additional groundwater information would be needed to predict if the arroyo willow thicket will be sustainable without the additional surface water input. However, this does affect the determination that the arroyo willow thicket is currently a functional plant community and wildlife habitat that meets the definition of ESHA.

The facility fence is chain link that is buried in the sand, except for access points. While this fence restricts the movement of larger mammals or ground wildlife, it does not restrict the movement of smaller wildlife (such as small mammals, reptiles, and birds). Wildlife species are mobile and can occupy and utilize areas outside their "type" habitat, especially if they are adjacent to their more natural habitats, and it would not be surprising to find similar suite of wildlife species, including the sensitive wildlife species, utilizing the vegetated areas inside the facility fence as in the adjacent habitats including the mapped ESHA on the west side of the facility. In addition, seed from plants outside the facility fence, including sensitive plant species, could easily move into and become established within the fence line (one of the ERM mapped locations of Nipomo lupine is within a disturbed area along the fence line).

Given the presence of sensitive species and other resources inside the facility fence and the potential for resources from outside the fence to move into and utilize areas with sandy soils and vegetation, it was determined that the vegetation alliances mapped and described in the ERM Report (excludes the develop/disturbed portions of the facility) meet the definition of unmapped ESHA as they a) exhibit equivalent characteristics and natural function as mapped ESHA to the west of the refinery facility, as well as habitat to the north and east that supports Nipomo lupine; b) have been documented as containing ESHA resources, including sensitive habitat types and wetlands; and c) have been documented as containing species and habitat for species determined to be threatened, endangered, or otherwise needing protection.

If you have any questions or comments, please contact me at 805.570.7993 or lauren.brown@mrsenv.com, or Greg Chittick at 805.289.3924 or greg.chittick@mrsenv.com.

Sincerely,

Lauren M. Brown
Senior Botanist

cc: Greg Chittick – MRS Environmental, Inc.
Emily Creel – SWCA Environmental Consultants
John Peirson – MRS Environmental, Inc.

References:

Arcadis. U.S., Inc. 2015. Phillips 66 Sensitive Resources Report – Botanical Addendum, Santa Maria Refinery Rail-Spur Project, San Luis Obispo County, California. July 2015.

California Department of Fish and Wildlife (CDFW). 2022. Vegetation Mapping and Classification Program (VegCAMP), Background, Natural Communities. Website: Natural Communities (ca.gov). Accessed December 2022.

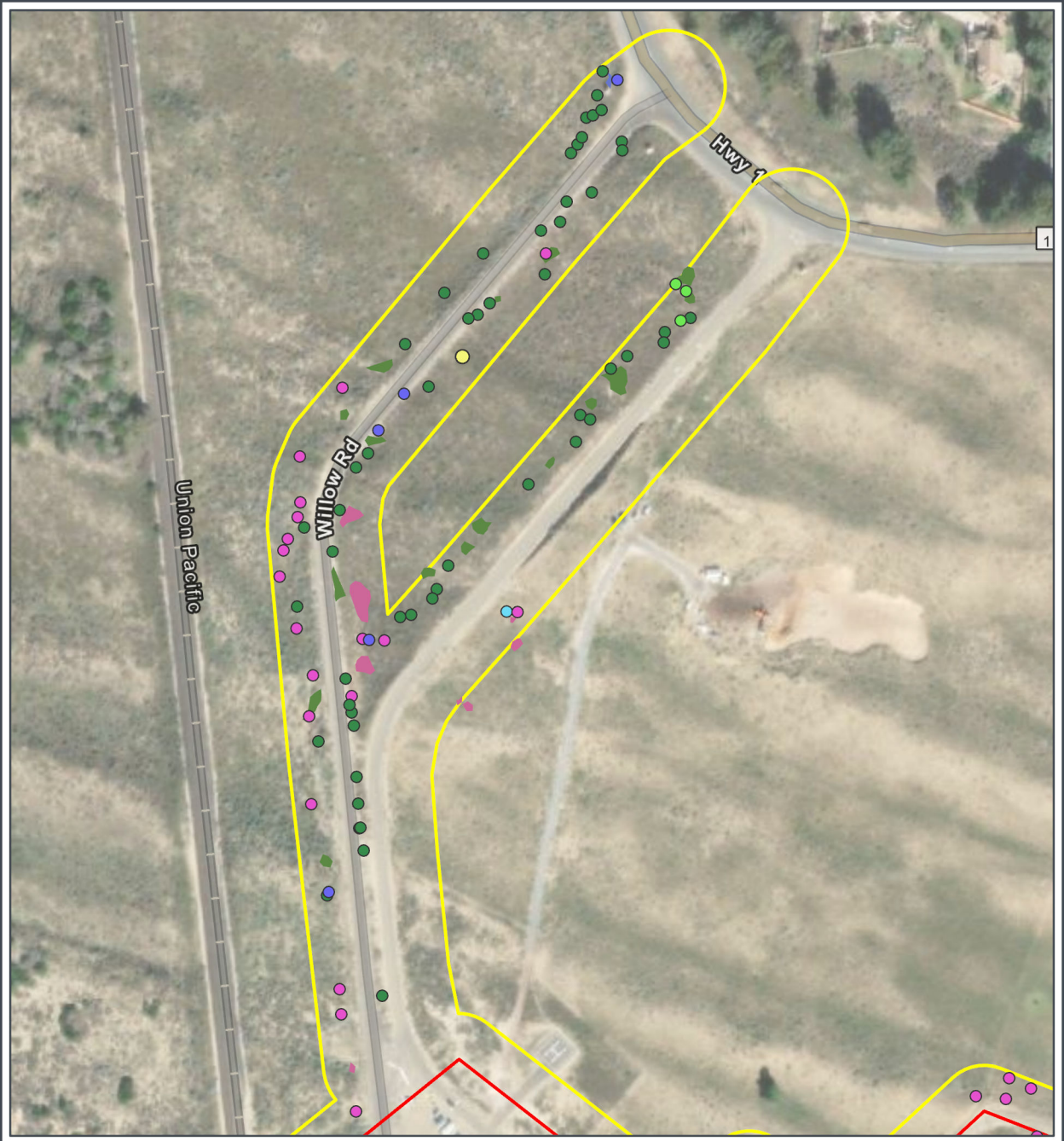
ERM-West, Inc. 2022. Biological Resources Technical Report for the Santa Maria Refinery Demolition and Remediation Project, prepared for Phillips 66. October 2022.

Holland, R. F. Preliminary Descriptions of the Terrestrial Vegetation Communities of California. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=75893&inline.

Land Conservancy of San Luis Obispo County (LCSLO). 2018. Dune Areas Protected Network 1.0: Creating a Blueprint for Restoration I the Guadalupe Nipomo Dunes Complex. San Luis Obispo, California.

Sawyer, John O., Todd Keeler-Wolf, and Julie M. Evens. 2009. *Manual of California Vegetation*, 2nd Edition. California Native Plant Society. Sacramento, California. 1300pp. Accessible online at CNPS.

SLO County Municipal Code, 2022. Website: SAN LUIS OBISPO COUNTY, CALIFORNIA COUNTY CODE | County Code | San Luis Obispo County, CA | Municide Library, September 13, 2022. Accessed December 06, 2022.



Project Area
100-ft Survey Area

Special Status Plants Mapped May 2023

- coastal goosefoot
- Blochman's leafy daisy
- Nipomo Mesa lupine
- sand almond
- Blochman's ragwort
- dune larkspur

Blochman's leafy daisy
sand almond
Blochman's ragwort

San Luis Obispo County, CA
NAD 1983 California Teale Albers FtUS
35.0456°N 120.5931°W

0 140 280 Feet
0 30 60 Meters

N

1:3,500

Base Map: Esri ArcGIS Online, accessed May 2023
Updated: 5/19/2023
Project No. 00080061-000-SLO
Layout: 80061_P66_Refinery_SurveyMap
Aprx: 80061_P66_SantaMariaRefinery

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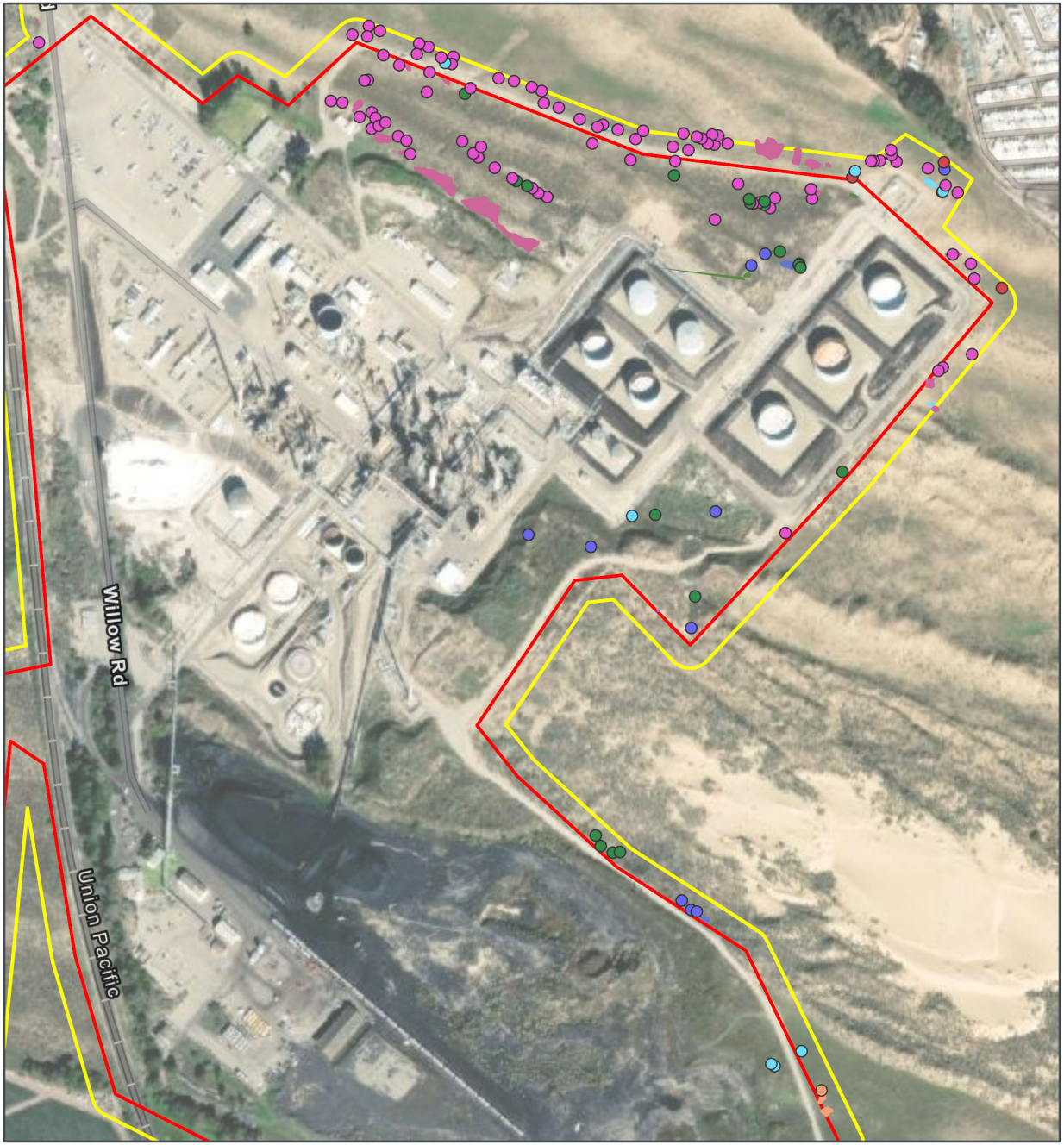

Project Area
100-ft Survey Area

Special Status Plants Mapped May 2023

- ocean bluff milk-vetch
- Blochman's leafy daisy
- Nipomo Mesa lupine
- California spineflower
- sand almond
- Blochman's ragwort

- ocean bluff milk-vetch
- Blochman's leafy daisy
- Nipomo Mesa lupine
- California spineflower
- sand almond
- Blochman's ragwort

San Luis Obispo County, CA
NAD 1983 California Teale Albers FtUS
35.0379°N 120.5883°W

0 290 580 Feet
0 70 140 Meters

N

1:7,000

Base Map: Esri ArcGIS Online, accessed May 2023
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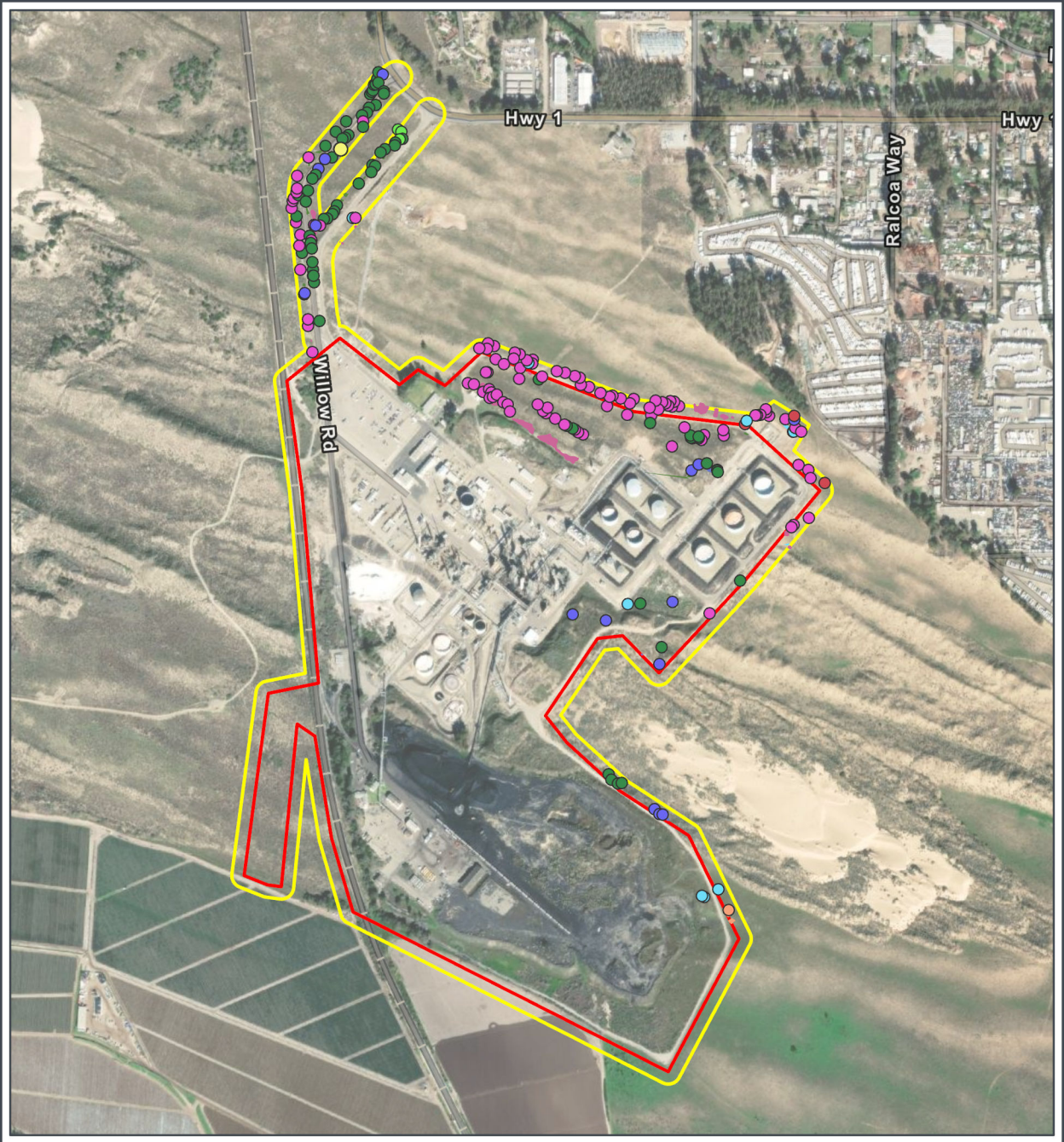
SWCA ENVIRONMENTAL CONSULTANTS



Project Area
100-ft Survey Area

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- Nipomo Mesa lupine
- California spineflower
- sand almond
- Blochman's ragwort
- dune larkspur
- ocean bluff milk-vetch
- Blochman's leafy daisy
- Nipomo Mesa lupine
- California spineflower
- sand almond
- Blochman's ragwort

San Luis Obispo County, CA
NAD 1983 California Teale Albers FtUS
35.039°N 120.5892°W

0 540 1,080 Feet
0 130 260 Meters

N

1:13,000

Base Map: Esri ArcGIS Online, accessed May 2023
Updated: 5/19/2023
Project No. 00080061-000-SLO
Layout: 80061_P66_Refinery_SurveyMap
Aprx: 80061_P66_SantaMariaRefinery

SWCA ENVIRONMENTAL CONSULTANTS

Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
red sand-verbena *Abronia maritima*	Perennial herb that occurs in coastal dunes. Elevation: 0–100 meters.	Feb-Nov	--/--/4.2	**Marginal Conditions Present, Species Absent:** There is marginally suitable dune habitat in the BSA. Species was not observed during 2022 or 2023 botanical surveys.
Hoover's bent grass *Agrostis hooveri*	Sandy sites in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 197–1,969 feet (60–600 meters [m]).	April–July	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No chaparral, cismontane woodland or valley and foothill grassland habitat was observed within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
Douglas fiddleneck Amsinckia douglasiana	An annual herb that occurs in cismontane woodland and valley and foothill grassland on Monterey shale substrates. Usually in dry areas. 0-1,950 meters.	March–May	--/--/4.2	**Suitable Conditions Absent, Species Absent:** No chaparral, cismontane woodland or valley and foothill grassland habitat was observed within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
Aphanisma *Aphanisma blitoides*	Coastal bluff scrub, coastal dunes, coastal scrub. On bluffs and slopes near the ocean in sandy or clay soils. Elevation: 10–1,000 feet (3–305 m). Channel Islands and immediate coast.	Feb–Jun	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable coastal scrub habitat occurs in the BSA, but it is outside of its known range (no occurrences in San Luis Obispo County). Species was not observed during 2022 or 2023 botanical surveys.
Santa Lucia manzanita *Arctostaphylos luciana*	Evergreen shrub; occurs on Chaparral with shale outcrops. 350-850 meters	February–March	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No chaparral, cismontane woodland or valley and foothill grassland habitat was observed within the biology study area. No manzanitas were observed in the project area during 2022 and 2023 botanical surveys.
Bishop manzanita *Arctostaphylos obispoensis*	Perennial evergreen shrub that occurs in chaparral, cismontane woodland, and closed-cone coniferous forest. Often in rocky or serpentinite areas. 150 – 1,005 meters.	February – June	--/--/4.3	**Suitable Conditions Absent, Species Absent:** No suitable habitat occurs within the biology study area. No manzanitas species were observed in the project area during 2022 and 2023 botanical surveys.
Pecho manzanita *Arctostaphylos pechoensis*	Closed coniferous forest, chaparral, and coastal scrub on siliceous shale. 125-850 meters	November-March	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No suitable habitat occurs within the biology study area. No manzanitas species were observed in the project area during 2022 and 2023 botanical surveys.
Santa Margarita manzanita *Arctostaphylos pilosula*	Evergreen shrub; occurs in closed coniferous forest, chaparral, and cismontane woodland on shale soils. 170-1100 meters	December – March	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No suitable habitat occurs within the biology study area. No manzanitas species were observed in the project area during 2022 and 2023 botanical surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
La Purisima manzanita *Arctostaphylos purissima*	Perennial evergreen shrub; sandy soil among chaparral and coastal scrub. Elevation: 197–1,280 feet (60–390 m).	November–May	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** No suitable habitat occurs within the biology study area. Outside elevational range. No manzanitas species were observed in the project area during 2022 and 2023 botanical surveys.
sand mesa manzanita *Arctostaphylos rudis*	Evergreen shrub; maritime chaparral and coastal scrub with sandy soils. Elevation: 82–1,056 feet (25–322 m).	November–February	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable habitat occurs within the BSA. No manzanita species were observed during 2022 and 2023 botanical surveys.
marsh sandwort *Arenaria paludicola*	Marshes and swamps, grows through dense mats of *Typha*, *Juncus*, *Scirpus*, etc. in freshwater marsh. Elevation: 33–558 feet (10–170 m).	May–August	FE/SE/1B.1	**Suitable Conditions Absent, Species Absent:** The project site does not support the appropriate mesic conditions for this species. Species was not observed during 2022 or 2023 botanical surveys.
Ocean bluff milk-vetch *Astragalus nuttallii* var. *nuttallii*	Perennial herb that occurs on coastal bluffs and dunes. 3-20 meters	January–November	--/--/4.2	**Suitable Conditions Present, Species Present:** The species was observed in two locations along the northeastern portion of the buffer area outside of the fence line during the rare plant surveys conducted in 2023. Also noted on the 2022 plant list, but not as the rare varietal.
Brewer's calandrinia *Calandrinia breweri*	Annual herb that occurs in chaparral, coastal scrub in burned areas, disturbed areas, loam (sometimes), or sandy (sometimes) soils. 10-1220 meters	(Jan)Mar-Jun	--/--/4.2	**Suitable Conditions Present, Species Absent:** Potentially suitable habitat in coastal scrub. Species was not observed during 2022 or 2023 botanical surveys.
Club-haired mariposa lily *Calochortus clavatus ssp. clavatus*	Perennial herb occurs in chaparral, cismontane, woodland, coastal scrub, valley and foothill grassland usually in serpentinite, clay, or rocky soils. 75-1300 meters	May–June	--/--/4.3	**Suitable Conditions Absent, Species Absent:** No suitable serpentinite, clay, or rocky soils occur within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
San Luis mariposa-lily *Calochortus obispoensis*	Chaparral, coastal scrub, valley and foothill grassland. Often in serpentine grassland. 75-665 meters	May–July	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No suitable serpentinite habitat occurs within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
La Panza mariposa lily *Calochortus simulans*	Chaparral, cismontane woodlands, lower montane coniferous forest, valley and foothill grassland; often in sandy, granitic, or serpentine soils. 395-1100 Meters	April–May	--/--/1B.3	**Suitable Conditions Absent, Species Absent:** No suitable serpentinite, clay, or rocky soils occur within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
Cambria morning-glory *Calystegia subacaulis* ssp. *episcopalis*	Grassland and rocky areas associated with chaparral and cismontane woodland. 60-500 meters	April–May	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable woodland and grassland habitat was not observed within the BSA. No rocky areas. Species was not observed during 2022 or 2023 botanical surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
San Luis Obispo sedge *Carex obispoensis*	Closed cone coniferous forests, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Usually adjacent to seeps, springs, stream sides or other water source with sand, clay or serpentine. 5-790 meters	April–June	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No seeps, springs, stream sides or other water source with sand, clay or serpentine within the BSA. Species was not observed during 2022 or 2023 botanical surveys.
San Luis Obispo owls clover *Castilleja densiflora* ssp. *obispoensis*	Valley and foothill grassland. 10-215 meters	April	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No suitable valley and foothill grasslands occurs in the BSA. Not observed during 2022 or 2023 botanical surveys.
California jewelflower *Caulanthus californicus*	Annual herb that occurs in nonnative grassland, upper sonoran subshrub scrub, and cismontane juniper woodland and scrub communities in subalkaline and sandy loam soils. Current known naturally-occurring populations are in: (1) Santa Barbara Canyon, (2) the Carrizo Plain, and (3) the Kreyenhagen Hills in Fresno County. 21–870 meters.	February–May	FE/SE/1B.1	**Suitable Conditions Absent, Species Absent:** BSA not located adjacent to known populations. Outside of current range. Not observed during 2022 or 2023 botanical surveys.
Lompoc ceanothus *Ceanothus cuneatus* var. *fascicularis*	Perennial evergreen shrub. Occurs in chaparral on sandy soils. Elevation: 15-1,310 feet (5-400 m).	February–April	--/--/4.2	**Suitable Conditions Present, Species Absent:** This perennial species would have been noticeable and identifiable throughout the year and was not observed during 2022 or 2023 field surveys.
Santa Barbara ceanothus *Ceanothus impressus* var. *impressus*	Perennial shrub; chaparral on sandy soils. Elevation: 131–1,542 feet (40–470 m).	February–April	--/--/1B.2	**Suitable Conditions Present, Species Absent:** This perennial species would have been noticeable and identifiable throughout the year and was not observed during 2022 or 2023 field surveys.
Nipomo Mesa ceanothus *Ceanothus impressus* var. *nipomensis*	Chaparral. Canyons, flats. Sandy substrates. Elevation: <650 feet.	February–April	--/--/1B.2	**Suitable Conditions Present, Species Absent:** This perennial species would have been noticeable and identifiable throughout the year and was not observed during 2022 or 2023 field surveys.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	Depressional areas within valley and foothill grassland. 1-230 meters	June–November	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** No suitable habitat areas in the BSA. Species was not observed during 2022 or 2023 botanical surveys.
coastal goosefoot *Chenopodium littoreum*	annual herb that occurs on coastal dunes.10 - 30 meters.	April–August	--/--/1B.2	**Suitable Conditions Present, Species Present:** Plants were observed between the entry roads during surveys in 2023 by SWCA.
dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	Chaparral habitats with serpentine soils. 305-1000 meters	May–August	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** No suitable serpentinite soils occur within the BSA. Species was not observed during 2022 or 2023 botanical surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Irish Hills spineflower *Chorizanthe aphanantha*	An annual herb that has been observed in the Irish Hills area of San Luis Obispo County. Reportedly occurs in chaparral, foothill woodland, coastal sage scrub, and closed-cone pine forest. However, little is known about the species. 100-370 meters	April-August	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** The project site is outside of its known elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
Brewer's spineflower *Chorizanthe breweri*	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest; rocky or gravelly serpentine sites; usually in barren areas. 45-800 meters	May –August	--/--/1B.3	**Suitable Conditions Absent, Species Absent:** The project site does not support serpentinite or rocky conditions. Outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
Palmer's spineflower *Chorizanthe palmeri*	Annual herb; Chaparral, Cismontane woodland, Valley and foothill grassland. Rocky, Serpentinite. Elevation: 180–3,100 feet (55–940 m).	April–August	--/--/4.2	**Suitable Conditions Absent, Species Absent:** The project site does not support serpentinite or rocky conditions. Outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	Chaparral, cismontane woodlands; serpentine seeps or bogs. 35-380 meters	February–July	FE/SE/1B.2	**Suitable Conditions Absent, Species Absent:** Suitable serpentine substrate absent. Not observed during 2022 and 2023 rare plant surveys.
compact cobwebby thistle *Cirsium occidentale* var. *compactum*	A perennial herb that occurs in chaparral, coastal dunes, coastal prairie, and coastal scrub. 5-150 meter	April–June	--/--/1B.2	**Suitable Conditions Present, Species Absent:** The coastal scrub habitat potentially provides suitable habitat. Not recorded on the site and not observed during 2022 and 2023 rare plant surveys.
surf thistle *Cirsium rhothophilum*	Coastal dunes, coastal bluff scrub, and open areas in central dune scrub; usually in coastal dunes. Known from dunes at Pismo Beach, Nipomo, and Santa Barbara County. Endemic to Central Coast (Santa Barbara and San Luis Obispo Counties). Elevation: 10–197 feet (3–60 m).	April–June	--/ST/1B.2	**Suitable Conditions Present, Species Absent:** The coastal scrub habitat potentially provides suitable habitat. Not recorded on the site and not observed during 2022 and 2023 rare plant surveys.
La Graciosa thistle *Cirsium scariosum* var. *loncholepis*	Cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), and valley and foothill grassland; usually in mesic, sandy soils. Elevation: 13–722 feet (4–220 m).	May–August	FE/ST/1B.1	**Suitable Conditions Absent, Species Absent:** The project site does not support mesic conditions necessary for this species. Not recorded on the site and not observed during 2022 or 2023 rare plant surveys.
seaside cistanthe *Cistanthe maritima*	An annual herb that occurs in coastal bluff scrub, coastal scrub, and valley and foothill grasslands, typically in sandy soil. 5 to 300 meters.	March – June	--/--/4.2	**Suitable Conditions Present, Species Absent:** The coastal scrub habitat potentially provides suitable habitat. Not recorded on the site and not observed during 2022 and 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
California saw-grass *Cladium californicum*	Rhizomatous herb. Occurs in meadows and seeps, and marshes and swamps (alkaline or freshwater). 60-600 meters	June–September	--/--/2B.2	**Suitable Conditions Absent, Species Absent:** The project site does not support mesic conditions necessary for this species. Not recorded on the site and not observed during 2022 or 2023 rare plant surveys.
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	Sandy soils, openings in chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. 25-185 meters.	May–Jul	FE/SR/1B.1	**Marginal Conditions Present, Species Absent:** The coastal scrub habitat potentially provides suitable habitat. Not recorded on the site and not observed during 2022 and 2023 rare plant surveys.
Small-flowered morning-glory *Convolvulus simulans*	A low growing annual herb with occurrences in chaparral, coastal scrub, and valley and foothill grassland. Often associated with clay soil. 30-740 meters.	March–July	--/--/4.2	**Suitable Conditions Absent, Species Absent:** The project site does not support clay soils. Not observed during 2022 or 2023 rare plant surveys.
salt marsh bird's-beak *Cordylanthus maritimus ssp. maritimus*	Annual herb; occurs in marshes and swamps on coastal dunes. 0-30 meters	May–October	FE/SE/1B.2	**Suitable Conditions Absent, Species Absent:** The project site does not support mesic conditions necessary for this species. Not observed during 2022 or 2023 rare plant surveys.
Gaviota tarplant *Deinandra increscens* ssp. *villosa*	Annual herb in the Asteraceae family; coastal bluff scrub, coastal scrub, and valley and foothill grassland, typically associated with sandy soils. Elevation: 115–1,411 feet (35–430 m).	May–October	FE/SE/1B.1	**Marginal Conditions Present, Species Absent:** Although soils are appropriate for this species, it is outside of its known range. Not recorded on the site and not observed during 2022 or 2023 rare plant surveys.
paniculate tarplant *Deinandra increscens* ssp. *villosa*	Coastal scrub, valley and foothill grassland, coastal bluff scrub. Known from coastal terrace near Gaviota; sandy blowouts amid sandy loam soil; grassland/coast scrub ecotone. Elevation: 33–1,411 feet (10-430 m).	May–Oct	--/--/4.2	**Marginal Conditions Present, Species Absent:** Although potentially suitable habitat exists in the coastal scrub, it is outside of its known range and not observed during 2022 or 2023 rare plant surveys.
dune larkspur *Delphinium parryi* ssp. *blochmaniae*	Perennial herb; maritime chaparral and coastal dunes with sandy or rocky soils. Elevation: 0–656 feet (0–200 m).	April–May	--/--/1B.2	**Suitable Conditions Present, Species Present:** The maritime chaparral habitat and sandy soils makes areas of the BSA suitable. Species was found in the buffer area adjacent to the access road during 2023 botanical surveys.
Eastwood's larkspur *Delphinium parryi* ssp. *Eastwoodiae*	A perennial herb that occurs in coastal areas with serpentinite soil. Often associated with openings in chaparral and valley and foothill grassland. 75-500 meters	February–March	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** The project site does not support serpentinite soil conditions necessary for this species. Not observed during 2022 or 2023 rare plant surveys.
umbrella larkspur *Delphinium umbraculorum*	Perennial herb. Occurs in cismontane woodland. 400-1600 meters.	April–June	--/--/1B.3	**Suitable Conditions Absent, Species Absent:** The project site does not support cismontane woodland and is outside of its elevational range. Not observed during 2022 or 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
western dichondra *Dichondra occidentalis*	Perennial rhizomatous herb that occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands. 3-50 meters	March – May	--/--/1B.1	**Suitable Conditions Present, Species Absent:** The coastal scrub habitat is suitable for this species, but it was not observed during 2022 or 2023 rare plant surveys.
beach spectaclepod *Dithyrea maritima*	Coastal dunes, coastal scrub, seashores, sand dunes, and sandy places near the shore. Elevation: 10–164 feet (3–50 m).	March–May	--/ST/1B.1	**Marginal Conditions Present, Species Absent:** The coastal scrub habitat does not contain areas of undisturbed dunes suitable for this species. Site is highly invaded by veldt grass. Not observed during 2022 or 2023 rare plant surveys.
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	Coastal scrub, valley and foothill grassland, chaparral; rocky barren serpentine exposures. 20-180 meters	May–July	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** The project site does not contain rocky outcrops, clay soil, or serpentine soil.
mouse-gray dudleya *Dudleya abramsii* ssp. *murina*	Serpentine outcrops in chaparral, cismontane woodland. 90 - 300 meters.	May–June	--/--/1B.3	**Suitable Conditions Absent, Species Absent:** The project site does not contain rocky outcrops, clay soil, or serpentine soil.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	Coastal scrub, chaparral, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. Elevation: 16–1,476 feet (5–450 m).	April–June	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** The project site does not contain rocky outcrops, clay soil, or serpentine soil.
small spikerush *Eleocharis parvula*	Perennial herb that occurs in marshes and swamps. 1-3,020 meters.	June – August	--/--/4.3	**Suitable Conditions Absent, Species Absent:** The project site does not support mesic conditions necessary for this species. Not recorded on the site and not observed during 2022 or 2023 rare plant surveys.
Blochman's leafy daisy *Erigeron blochmaniae*	Perennial rhizomatous herb; coastal dunes and coastal scrub on sandy soils. Elevation: 10–148 feet (3–45 m).	July–August	--/--/1B.2	**Suitable Conditions Present, Species Present:** Suitable habitat occurs onsite in coastal dune scrub and was observed during 2022 and 2023 botanical surveys.
saints' daisy *Erigeron sanctarum*	Perennial rhizomatous herb that occurs in chaparral, cismontane woodland, and coastal scrub. 75 – 350 meters.	March – July	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat is present, but the BSA is outside of the species elevational range. Not observed during 2022 or 2023 rare plant surveys.
Indian knob mountainbalm *Eriodictyon altissimum*	Evergreen shrub. Occurs in maritime chaparral, cismontane woodland, and coastal scrub with sandstone substrates. 80-270 meters	March–June	FE/SE/1B.1	**Suitable Conditions Absent, Species Absent:** No suitable habitat present in BSA. BSA is outside of the species elevational range. Not observed during 2022 or 2023 rare plant survey.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Elegant wild buckwheat *Eriogonum elegans*	Annual herb that occurs in cismontane woodlands and valley and foothill grasslands in areas that are gravelly (usually), along roadsides (sometimes), and in sandy soils (usually) and washes (often). 200 – 1525 meters.	May – November	--/--/4.3	**Suitable Conditions Absent, Species Absent:** Suitable habitat is present, but the BSA is outside of the species elevational range. Not observed during 2022 or 2023 rare plant surveys.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	Vernal pools in alkaline depressions near the coast. 5-45 meters.	July	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** The project site does not support vernal pools. Not recorded on the site and not observed during 2022 or 2023 rare plant surveys.
San Luis Obispo wallflower *Erysimum capitatum* var. *lompocense*	Perennial herb that occurs in chaparral and Coastal scrub, typically in sandy soil. 60 – 500 meters.	February – May	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat is present, but the BSA is outside of the species elevational range. Not observed during 2022 or 2023 rare plant surveys.
suffrutescent wallflower *Erysimum suffrutescens*	Perennial herb; Chaparral (maritime), Coastal bluff scrub, Coastal dunes, Coastal scrub. Elevation: 0–490 feet (0–150 m).	January-July (August)	--/--/4.2	**Suitable Conditions Present, Species Absent:** Suitable habitat is present. Not observed during 2022 or 2023 rare plant surveys.
Irish Hills monkeyflower *Erythranthe serpentinicola*	Annual herb that occurs in chaparral openings and along the edges of meadows and seeps. Often in mesic areas, openings, rocky or serpentinite soils. 60 – 360 meters.	February – May	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** The project site does not support serpentinite or rocky conditions. Outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
San Benito poppy *Eschscholzia hypecoides*	Annual herb that occurs in chaparral, cismontane woodland, and valley and foothill grasslands. Often in clay or serpentinite soils. 200 – 1500 meters.	March – June	--/--/4.3	**Suitable Conditions Absent, Species Absent:** The project site does not support serpentinite or rocky conditions. Outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
trumpet-throated gilia *Gilia tenuiflora* ssp. *amplifaucalis*	Annual herb that occurs in cismontane woodland and valley and foothill grasslands. Often in sandy soils. 390 – 900 meters	March - April	--/--/4.3	**Suitable Conditions Absent, Species Absent:** The BSA is outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
Monterey cypress *Hesperocyparis macrocarpa*	Evergreen tree occurs in closed-cone coniferous forest. Known from only two native occurrences in the Monterey area. 10-30 meters	NA	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** Not observed in the BSA. BSA is outside of the known area of native occurrences.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	Perennial herb; chaparral, cismontane woodlands, and coastal scrub in sandy or gravelly sites. Elevation: 230–2,658 feet (70–810 m).	February–September	--/--/1B.1	**Suitable Conditions Present, Species Absent:** Suitable habitat present in BSA, but outside of elevational range of species. Not observed during 2022 and 2023 rare plant surveys.
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	Perennial herb; closed-cone coniferous forest, maritime chaparral, and coastal scrub with sandy or gravelly openings. Elevation: 33–656 feet (10–200 m).	April–September	--/--/1B.1	**Suitable Conditions Present, Species Absent:** Suitable habitat present in BSA. Not observed during 2022 and 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	Perennial rhizomatous herb that occurs in coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt), or in meadows and seeps (alkaline seeps). 3 – 900 meters.	May – June	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Not observed during 2022 and 2023 rare plant surveys.
Jones's layia *Layia jonesii*	Chaparral and valley and foothill grassland on clay or serpentine outcrops. 5-400 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Not observed during 2022 and 2023 rare plant surveys.
Large-flowered leptosiphon *Leptosiphon grandifloras*	Annual herb that occurs in coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland with sandy soil. 5-1,220 meters.	April–August	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Not observed during 2022 and 2023 rare plant surveys.
spring lessingia *Lessingia tenuis*	Annual herb that occurs in openings in chaparral, cismontane woodland, and lower montane coniferous forest habitats. 300 – 2150 meters.	May – July	--/--/4.3	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Outside of elevational range. Not observed during 2022 and 2023 rare plant surveys.
fuzzy prickly-phlox *Linanthus californicus* ssp. *tomentosus*	Perennial deciduous shrub that occurs in coastal dune habitats. 1 – 185 meters.	March - August	--/--/4.3	**Suitable Conditions Present, Species Potentially Present:** *Linanthus californicus* was observed during 2022 and 2023 rare plant surveys, but it was not identified to subspecies, therefore, absence can not be ruled out.
small-leaved lomatium *Lomatium parvifolium*	Perennial herb that occurs in closed-cone coniferous forest, chaparral, coastal scrub, riparian woodland; often associated with serpentinite. 20-700 meters	January–June	--/--/4.2	**Suitable Conditions Absent, Species Absent:** Suitable serpentinite habitat not present in BSA. Not observed during 2022 and 2023 rare plant surveys.
San Luis Obispo County lupine *Lupinus ludovicianus*	Chaparral, cismontane woodland. Open areas in sandy soils of the Santa Margarita formation. 50-525 meters	April–July	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Outside of elevational and geographic range. Not observed during 2022 and 2023 rare plant surveys.
Nipomo Mesa Lupine *Lupinus nipomensis*	Annual herb. Occurs in coastal dunes. 10-50 meters	December–May	FE/SE/1B.1	**Suitable Conditions Present, Species Present:** The coastal dune/scrub habitat is suitable for this species. Observed during 2022 and 2023 botanical surveys.
Slender bush-mallow *Malacothamnus gracilis*	Perennial deciduous shrub that occurs in chaparral on rocky soil. 190 - 575 meters	May–October	--/--/1B.1	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Outside of elevational range. Not observed during 2022 and 2023 rare plant surveys.
Jones' bush-mallow *Malacothamnus jonesii*	Perennial herb that occurs in chaparral and cismontane woodlands. 160 – 1,075 meters.	April – October	--/--/4.3	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Outside of elevational and geographic range. Not observed during 2022 and 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
dunedelion *Malacothrix incana*	Perennial herb that occurs in coastal dunes and coastal scrub habitats. 2 - 35 meters	April – October	--/--/4.3	**Suitable Conditions Present, Species Absent:** Suitable habitat is present, but it was not observed during 2022 and 2023 rare plant surveys.
Palmer's monardella *Monardella palmeri*	Chaparral and cismontane woodland on serpentine slopes. 200-800 meters.	June–August	--/--/1B.2	**Suitable Conditions Absent, Species Absent:** Suitable habitat not present in BSA. Outside of elevational range. Not observed during 2022 and 2023 rare plant surveys.
southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	Annual herb; sandy soil among chaparral, cismontane woodland, coastal dunes, and coastal scrub with openings. Elevation: 0–984 feet (0–300 m).	April–September	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable habitat is present, but it was not observed during 2022 and 2023 rare plant surveys.
crisp monardella *Monardella undulata* ssp. *crispa*	Perennial and rhizomatous herb; coastal dunes among coastal scrub and maritime chaparral. Elevation: 33–394 feet (10–120 m).	April–August	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable habitat is present. There are two CNPS occurrence from 1987 adjacent to the access road, but it was not observed during 2022 and 2023 rare plant surveys.
San Luis Obispo monardella *Monardella undulata* ssp. *undulata*	Perennial and rhizomatous herb; coastal dunes among coastal scrub and maritime chaparral on sandy substrates. Elevation: 33–656 feet (10–200 m).	May–September	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable habitat is present. Not observed during 2022 and 2023 rare plant surveys.
California spineflower *Mucronea californica*	Chaparral, woodland, coastal scrub, grassland. Sandy soil. Elevation: <3,280 feet.	Mar–Aug	--/--/4.2	**Suitable Conditions Present, Species Present:** Species was observed in the BSA during the 2022 and 2023 botanical surveys.
aparejo grass Muhlenbergia utilis	perennial rhizomatous herb that occurs in chaparral, cismontane woodland, coastal scrub, marshes and swamps, or meadows and seeps. Often in alkaline or serpentinite soils. 25 – 2,325 meters.	Mar – October	--/--/2B.2	**Suitable Conditions Absent, Species Absent:** The project site does not support mesic conditions or soil types necessary for this species. Not observed during 2022 and 2023 rare plant surveys.
Gambel's water cress *Nasturtium* (*Rorippa*) *gambelii*	Rhizomatous herb; marshes and swamps (freshwater or brackish). Elevation: 16–1,083 feet (5–330 m).	April–October	FE/ST/1B.1	**Suitable Conditions Absent, Species Absent:** The BSA does not support mesic conditions necessary for this species. Not observed during 2022 and 2023 rare plant surveys.
Spreading Navarretia *Navarretia fossalis*	Annual herb occurs in chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, and vernal pools. 30-655 meters.	April–June	FT/--/1B.1	**Suitable Conditions Absent, Species Absent:** The BSA does not support mesic conditions necessary for this species. Not observed during 2022 and 2023 rare plant surveys.
coast woolly-heads *Nemacaulis denudata var. denudata*	Annual herb that occurs on coastal dunes. 0-100 meters	April–September	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Two CNPS occurrences adjacent to Oso Flaco Lake. Suitable coastal dune habitat in BSA, but not observed during 2022 and 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Robbin's nemacladus *Nemacladus secundiflorus* var. *robbinsii*	An annual herb that occurs in openings among chaparral and valley and foothill grassland. 350-1700 meters	April–June	-- / -- / 1B.2	**Suitable Conditions Absent, Species Absent:** The BSA does not support suitable habitat. Outside of elevational range. Not observed during 2022 and 2023 rare plant surveys.
adobe yampah *Perideridia pringlei*	Perennial herb that occurs in chaparral, cismontane woodland, coastal scrub, or pinyon and juniper woodland. Often in clay or serpentinite soils. 300 – 1800 meters.	April – June	--/--/4.3	**Suitable Conditions Absent, Species Absent:** he BSA does not contain serpentinite soils. Outside of elevational range. Not observed during 2022 and 2023 rare plant surveys.
Monterey pine *Pinus radiata*	Evergreen tree that occurs in closed-cone coniferous forest and cismontane woodland. Only native stands restricted to Año Nuevo, Cambria, and Monterey Peninsula. Elevation: 25–185 meters.	NA	--/--/1B.1	**Suitable Conditions Present, Species Present (planted):** Planted Monterey Pines occur around the northern portion of the property, but these are planted individuals and not considered a rare native stand.
Sand almond *Prunus fasciculata* var. *punctata*	Perennial shrub that occurs in chaparral and coastal scrub on coastal dunes. Elevation: 49–656 feet (15–200 m).	March–April	--/--/4.3	**Suitable Conditions Present, Species Present:** Suitable habitat occurs onsite and it was mapped in several locations in the BSA during the 2022 and 2023 rare plant surveys.
Hoffmann's sanicle *Sanicula hoffmannii*	Perennial herb that occurs in broadleafed upland forest, chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, or lower montane coniferous forest. Often in clay or serpentinite soils. 30 – 300 meters	March – May	--/--/4.3	**Suitable Conditions Absent, Species Absent:** No suitable clay or serpentinite soils in the BSA. Not observed during the 2022 and 2023 rare plant surveys.
black-flowered figwort *Scrophularia atrata*	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub; around swales and in sand dunes; and sand, diatomaceous shale, and soils derived from other parent material. Elevation: 33–820 feet (10–250 m).	March–April	--/--/1B.2	**Suitable Conditions Present, Species Absent:** Suitable habitat occurs onsite. Not observed during the 2022 and 2023 rare plant surveys.
chaparral ragwort *Senecio aphanactis*	Chaparral, cismontane woodlands; coastal scrub/alkaline. 15-800 meters	January–April	--/--/2B.2	**Suitable Conditions Absent, Species Absent:** No suitable alkaline habitat occurs in the BSA. Not observed during the 2022 and 2023 rare plant surveys.
San Gabriel ragwort *Senecio astephanus*	Perennial herb that occurs in chaparral and coastal bluff scrub. Often on rocky slopes. 400 – 1500 meters.	May – July	--/--/4.3	**Suitable Conditions Absent, Species Absent:** No suitable rocky habitat occurs in the BSA. Not observed during the 2022 and 2023 rare plant surveys.
Blochman's ragwort *Senecio blochmaniae*	Perennial herb; coastal dunes. Elevation: 0–330 feet (0–100 m).	May–October	--/--/4.2	**Suitable Conditions Present, Species Present:** Suitable habitat occurs onsite, and it was mapped in several locations in the BSA during the 2022 and 2023 rare plant surveys.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
San Bernardino aster *Symphyotrichum defoliatum*	Rhizomatous herb; meadows and seeps, cismontane woodland, coastal scrub, and foothill grassland. Vernally mesic grassland or near ditches and springs. Elevation: 7–6,693 feet (2–2,040 m).	July–November	--/--/1B.2	**Marginal Conditions Present, Presumed Absent:** No suitable wetland habitat occurs onsite. No known occurrences in San Luis Obispo County. Closest is in Santa Barbara County near Vandenberg Space Force Base. It has never been recorded in coastal dune habitat and is unlikely to occur.

Sources: Baldwin et al. (2012). All plant descriptions paraphrased from CNPS (2023).

Status Codes:

-- = No status

Federal: FE = Federal Endangered; FT = Federal Threatened

State: SE = State Endangered; ST= State Threatened; SR = State Rare

CNPS CRPR: ***1B*** **=** rare, threatened, or endangered in California and elsewhere; ***2*** **=** rare, threatened, or endangered in California, but more common elsewhere; ***3*** **=** plants that about which more information is needed; ***4*** **=** a watch list plants of limited distribution

Threat Code: ***0.1*** **=** Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat); ***0.2*** **=** Fairly endangered in California (20%–80% occurrences threatened); ***0.3*** **=** Not very endangered in California (<20% of occurrences threatened or no current threats known)

Rationale Terms: ***Species Present:*** Species was or has been observed in the survey area. ***Species Absent:*** Based on appropriate survey efforts, absence of the species was confirmed. ***Suitable Conditions Present:*** The appropriate habitat, soils, and elevation are present in the survey area. ***Marginal Conditions Present:*** The appropriate habitat and/or soils are present but other factors (past disturbances, elevation range) may preclude species occurrence. ***Suitable Conditions Absent:*** The survey area did not support the appropriate habitat, soils, and/or elevation for the species.

Special-Status Animal Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Insects			
Oso flaco robber fly *Ablautus schlingeri*	Occur in sandy coastal backdune habitat. Found in San Luis Obispo County.	--/--/SA	**Suitable Conditions Present:** Suitable habitat in BSA.
Oso Flaco flightless moth *Areniscythris brachypteris*	Occur in open, coastal sand dune slopes in San Luis Obispo County.	--/--/SA	**Suitable Conditions Absent:** Coastal sand dune habitat necessary to support this species was not observed within the BSA.
Wawona riffle beetle *Atractelmis wawona*	Freshwater beetle found in riffles of rapid, small to medium clear mountain streams, 2000-5000 ft. elevations.	--/--/SA	**Suitable Conditions Absent:** Species removed from further evaluation due to the lack of aquatic habitats in the facility sites.
obscure bumble bee *Bombus caliginosus*	Inhabits open grassy coastal prairies and Coast Range meadows. Nest underground and above ground in abandoned bird nests.	--/--/SA	**Suitable Conditions Present:** Suitable habitat in BSA.
Crotch bumble bee *Bombus crotchii*	Open grassland and scrub habitat. Nest primarily underground. Generalist forager. Select food plant genera include *Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Boraginaceae*. Little is known about overwintering sites.	--/CE/--	**Suitable Conditions Present:** Suitable habitat in coast scrub and grassland areas.
western bumble bee *Bombus occidentalis*	A bumble bee that historically has had a wide range in the west coast of north America from British Columbia to central California and east to South Dakota. In California, populations are currently restricted to high elevation sites in the Sierra Nevada (Xerces Society 2012), though there have been few observations on the northern California coast (Xerces Society et al. 2017). Requires Meadows and grasslands with abundant floral resources.	--/CE/--	**Suitable Conditions Present:** Suitable habitat in coast scrub and grassland areas. There is a historic CNDDB occurrence from 1936 near Pismo Beach.
Oso Flaco patch butterfly *Chlosyne leanira elegans*	Occur in sand dune habitat around Oso Flaco Lake, San Luis Obispo County. Larval food plant is *Castilleja affinis.*	--/--/SA	**Suitable Conditions Absent:** Larval food plant was not observed in the BSA. .
Sandy beach tiger beetle *Cicindela hirticollis gravida*	Occur in moist sand near the ocean, in swales behind dunes or upper beaches beyond normal high tides. Found in Humboldt, Los Angeles, Marin, Orange, San Diego, San Francisco, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, and Ventura counties.	--/--/SA	**Suitable Conditions Absent:** Dune and foredune habitat necessary to support this species was not observed within the BSA.
Globose dune beetle *Coelus globosus*	Occur in fore dunes, sand hummocks, and back dunes along the immediate coast. Occur in sand and under vegetation or debris. Found in Los Angeles, Marin, Mendocino, Monterey, Orange, San Diego, San Luis Obispo, Santa Barbara, Santa Cruz, Sonoma, and Ventura counties.	--/--/SA	**Suitable Conditions Absent:** Dune and foredune habitat necessary to support this species was not observed within the BSA.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
monarch butterfly *Danaus plexippus*	Occur along coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine [*Pinus radiata*], and cypress [*Cupressus* spp.]), with nectar and water sources nearby.	FC/--/SA	**Suitable Conditions Present:** The eucalyptus trees provide suitable winter roosting habitat, but there are no documented winter roost sites in the BSA. There is an unprocessed CNDDB occurrence 0.4 mile north, but it is not cited as a winter roosting area.
Morro Bay blue butterfly *Icaricia icarioides moroensis*	Locally common from March to July, this species flies only along the immediate coast of San Luis Obispo and western Santa Barbara counties. Feeds on *Lupinus chamissonis*. This variety is restricted to the dunes at Vandenberg Space Force Base, Pismo/Guadalupe dune system and the dunes of Morro Bay.	--/--/SA	**Suitable Conditions Present:** Found at Oso Flaco Lake in 2004; *Lupinus chamissonis* is present in BSA.
White sand bear scarab beetle *Lichnanthe albipilosa*	Only occur in tidal salt marsh in heavily grown pickleweed and in freshwater and brackish marshes near the coast. Found in San Luis Obispo County.	--/--/SA	**Suitable Conditions Absent:** Marsh habitat dominated by pickleweed was not observed within the BSA.
Crustaceans			
vernal pool fairy shrimp *Branchinecta lynchi*	Occur in vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/-- /--	**Suitable Conditions Absent**: The project site does not support vernal pools.
Fish			
tidewater goby *Eucyclogobius newberryi*	Occur in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/--/SSC	**Suitable Conditions Absent:** The project site does not support aquatic habitats capable of supporting this species.
unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	Small freshwater fish (up to 5 centimeters, standard length); inhabit slow-moving reaches or quiet-water streams and rivers. Favorable habitats are usually shaded by dense and abundant vegetation. Current range is restricted to upper Santa Clara River and its tributaries in Los Angeles County, San Antonio Creek on Vandenberg Air Force Base in Santa Barbara County, and Shay Creek vicinity in San Bernardino County (U.S. Fish and Wildlife Service 2009).	FE/SE/FP	**Suitable Conditions Absent:** The project site does not support aquatic habitats capable of supporting this species.
arroyo chub *Gila orcuttii*	Small freshwater fish that occur in coastal waters of southern California. Typically occur on sandy and muddy bottoms of flowing pools, creeks, intermittent streams, and small to medium rivers. Known populations occur in Malibu Creek, Santa Clara, San Luis Rey, and Santa Margarita River.	--/--/SSC	**Suitable Conditions Absent:** The project site does not support aquatic habitats capable of supporting this species.
Southern California steelhead Distinct Population Segment (DPS) *Oncorhynchus mykiss irideus*	Occur in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and 1:1 pool-to-riffle ratio.	FT, PCH /--/SSC	**Suitable Conditions Absent:** The BSA does not support aquatic habitats capable of supporting this species.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
South-Central California Coast steelhead DPS *Oncorhynchus mykiss irideus*	Occur in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and 1:1 pool-to-riffle ratio.	FT, PCH /-- /SSC	**Suitable Conditions Absent:** The BSA does not support aquatic habitats capable of supporting this species.
Amphibians			
California tiger salamander *Ambystoma californiense* – Santa Barbara DPS	Occur in grasslands or oak woodlands that support natural ephemeral pools or ponds that mimic them. Require seasonal water for breeding and small mammal burrows, crevices in logs, piles of lumber, and shrink-swell cracks in ground for refuges. To be suitable, aquatic sites must retain at least 30 centimeters of water for minimum of 10 weeks in winter.	FE/ST/--	**Suitable Conditions Absent:** The BSA does not support suitable aquatic breeding habitat for this species and is outside of its known range.
California red-legged frog *Rana draytonii*	Occur in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet (0.7 meters [m]). Presence of fairly sturdy underwater supports, such as cattails (*Typha* spp.).	FT /-- /SSC	**Marginal Conditions Present:** Marginally suitable aquatic habitat is present. The two mapped wetlands provide marginally suitable aquatic habitat. The fact that they provide a consistent source of water throughout the year, makes them potentially attractive nonbreeding aquatic habitat. There is a CNDDB record 0.4 mile west of the BSA in a dune swale pond, which is well within the dispersal distance. There are also CNDDB occurrences in Oso Flaco Creek, which is 0.4 mile south of the BSA.
western spadefoot *Spea hammondii*	Inhabit vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	--/--/SSC	**Marginally Suitable Upland Habitat Present, Species Absent:** Marginally suitable upland habitat occurs in the BSA, but no breeding ponds occur on the site or adjacent to the site. Closest CNDDB occurrence is 6 miles southeast in a farm pond adjacent to the Santa Maria River.
Coast range newt *Taricha torosa torosa*	Breed in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.	--/--/SSC	**Suitable Conditions Absent:** suitable habitat absent on site.
Reptiles			
Northern California legless lizard *Anniella pulchra*	Occur from southern edge of San Joaquin River in northern Contra Costa County south to Ventura County. Occur in scattered locations in San Joaquin Valley, along southern Sierra Nevada mountains, and on desert side of Tehachapi Mountains and part of San Gabriel Mountains. Sandy or loose loamy soils with high moisture content under sparse vegetation.	--/--/SSC	**Suitable Conditions Present**: Multiple CNDDB occurrences adjacent to BSA. Suitable sandy soils onsite. Suitable habitat is present throughout the BSA. Species is likely to occur within the project area.
western pond turtle *Emys marmorata*	Occur in quiet waters of ponds, lakes, streams, and marshes. Typically, in deepest parts with an abundance of basking sites.	--/--/SSC	**Suitable Conditions Absent:** The BSA does not support freshwater habitat with basking structures suitable for the species.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Blainville's (coast) horned lizard *Phrynosoma blainvillii*	Frequent a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Prefer friable, rocky, or shallow sandy soils.	--/--/SSC	**Suitable Conditions Present**: Suitable sandy soils onsite. Suitable habitat present on the site. Closest CNDDB occurrence is 0.6 mile west on the Oceano dunes. Species is likely to occur within the project area.
two-striped garter snake *Thamnophis hammondii*	Occur in coastal California from Salinas to Baja California and at elevations up to 7,000 feet (2,134 m). Found along streams with rocky beds and permanent freshwater.	--/--/SSC	**Suitable Conditions Absent:** The project site does not support aquatic habitats capable of supporting this species.
Birds			
Cooper's hawk *Accipiter cooperii*	Deciduous riparian woodland habitat throughout California. Cooper's hawks nest in deciduous, mixed-deciduous, and evergreen forests, as well as in suburban and urban environments. Cooper's hawks tend to nest in more open areas that have older and larger trees.	MBTA/--/WL	**Suitable Conditions Present:** CNDDB did not have any occurrences for this species, but it was observed by Arcadis during surveys in 2013 for the Rail Spur. Likely to forage on the site and occur intermittently throughout the year. Potentially suitable nesting habitat on infrastructure.
sharp-shinned hawk *Accipiter striatus*	A short distance migrant that nests in mixed forests and wooded. Prefers tall trees for nest building. Prey base includes small birds and mammals.	MBTA/--/WL	**Suitable Conditions Present:** CNDDB occurrence 1.8 miles east on the Monarch Dunes Golf Club. Likely to forage on the site and occur intermittently throughout the year. Potentially suitable nesting habitat on infrastructure and eucalyptus trees.
golden eagle *Aquila chrysaetos*	Usually occurring in mountainous areas with varying vegetative cover; removed from people. May forage in grasslands and other open habitats. Nests on cliff edges and rarely in tall trees.	MBTA, BGEPA/--/FP, Sec.3503.5	**Marginal Conditions Present**: Species may occur intermittently on the site. Closest CNDDB occurrence is by Cachuma Lake. Not likely to nest on the site.
tricolored blackbird *Agelaius tricolor*	(Nesting colony); require open water, protected nesting substrate, such as cattails or tall rushes (*Juncus* spp.), and foraging area with insect prey.	MBTA/--/SSC	**Suitable Conditions Absent:** The project site does not support freshwater marsh habitat for nesting. Marginally suitable foraging habitat present, but unlikely given lack of suitable nesting habitat nearby.
Bell's sparrow *Artemisiospiza* [*Amphispiza*] *belli belli*	Occurs in coastal sage scrub, chamise chaparral	MBTA/--/WL	**Suitable Conditions Present:** Suitable habitat for foraging throughout survey area, and suitable nesting habitat on infrastructure and sagebrush. No CNDDB occurrences for this species, but it was observed by Arcadis during surveys in 2013 for the Rail Spur (Arcadis 2013).
burrowing owl *Athene cunicularia*	Occur in open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent on burrowing mammals.	MBTA/-- /SSC	**Suitable Conditions Present:** suitable scrub habitat available on site; over-winters on the site. Observed by Arcadis during surveys in 2013 for the Rail Spur (Arcadis 2013).Closest CNDDB occurrence is on the Guadalupe oil fields 4.5 miles south in similar habitat.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
ferruginous hawk *Buteo regalis*	(Wintering) open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; eats lagomorphs, ground squirrels, and mice.	MBTA/--/WL	**Suitable Conditions Present.** Closest CNDDB occurrence is in San Luis Obispo, but it was observed by Arcadis during surveys in 2013 for the Rail Spur (Arcadis 2013). Although the ferruginous hawks may pass through the area in the winter, nesting is not expected to occur in the project areas.
marbled murrelet *Brachyramphus marmoratus marmoratus*	Spends most of the non-breeding season in off shore or near shore environments near coniferous forests. The only California alcid species to nests inland. Typically nests in the upper branches of redwoods or doug-fir forests. Builds its nests with lichens and mosses.	FT/SE/--	**Suitable Conditions Absent:** The BSA does not support suitable habitat conditions.
Swainson's hawk *Buteo swainsoni*	Open desert, grassland, or cropland containing scattered, large trees or small groves. Roosts in large trees. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley.	--/ST/--	**Marginal Conditions Present, Species Likely Absent:** Closest CNDDB occurrence is in Guadalupe, 4 miles south, but it is presumed extirpated. Marginally suitable foraging habitat, but populations are low in coastal counties.
western snowy plover *Charadrius alexandrinus nivosus*	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	MBTA, FT/ --/SSC	**Suitable Conditions Absent:** The BSA does not support suitable habitat conditions.
northern harrier *Circus cyaneus*	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Permanent resident of the northeastern plateau and coastal areas; less common resident of the Central Valley. Widespread winter resident and migrant in suitable habitat.	MBTA/--/SSC	**Suitable Conditions Present: Common winter resident.** CNDDB did not have any occurrences for this species, but it was observed by Arcadis during surveys in 2014 for the Rail Spur. Suitable foraging habitat on the site for this species. Potentially suitable nesting habitat on infrastructure.
western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Occurs in forests to open riparian woodlands with thick understory. Found in low- to moderate-elevation native forests lining rivers and streams of western United States.	FT, MBTA/SE/--	**Suitable Conditions Absent:** The BSA does not support suitable habitat conditions.
white-tailed kite *Elanus leucurus*	Open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	MBTA/--/ FP	**Suitable Conditions Present:** Suitable habitat available for this species; species likely to occur on the site intermittently throughout the year. Potentially suitable nesting habitat in Eucalyptus and Monterey Pine trees onsite.
Southwestern willow flycatcher *Empidonax traillii extimus*	Occurs in riparian woodlands of southern California.	FE/SE/--	**Suitable Conditions Absent:** The BSA does not support suitable habitat conditions.
American peregrine falcon *Falco peregrinus*	Riparian areas and coastal and inland wetlands are important habitats yearlong, especially in nonbreeding seasons. Migrants occur along the coast, and in the western Sierra Nevada in spring and fall.	MBTA, Delisted/FP/--	**Suitable Conditions Present:** Suitable habitat for foraging throughout BSA, and suitable nesting habitat on infrastructure.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
California condor *Gymnogyps californianus*	Occurs in open savannahs, grasslands, and foothill chaparral, in mountain ranges with moderate altitudes. Nest in deep canyons on rock walls with clefts.	FE/SE/--	**Suitable Conditions Absent:** Nearest occurrence documented at the Hi Mountain Condor Area. Site contains marginal foraging habitat; however, does not contain suitable nesting habitat.
Bald eagle *Haliaeetus leucocephalus*	Occurs along ocean shore, lake margins and rivers for both nesting and wintering. Most nests within 1 mile of water.	MBTA, BGEPA/SE/--	**Suitable Conditions Absent:** Closest occurrence is from Twitchell Reservoir 15 miles east. BSA is greater than 1 mile away from the Ocean and not located close enough to any lakes to make the infrastructure suitable habitat for nesting.
loggerheaded shrike *Lanius ludovicianua*	A predatory passerine that frequents open areas with scattered shrubs. Commonly observed foraging in grassland, desert scrubs, and waste places. Builds nests in isolated trees or shrubs in the vicinity of foraging areas.	MBTA/--/SSC	**Suitable Conditions Present:** One unprocessed CNDDB occurrence approximately 1.3 miles west of BSA and the species was observed by Arcadis during surveys in 2013 for the Rail Spur. Suitable habitat on site for this species; likely to occur on the site intermittently throughout the year. Suitable nesting habitat in shrubs and potentially on infrastructure.
California black rail *Laterallus jamaicensis coturniculus*	Shore birds known to frequent tidal salt marshes. Utilize densely vegetated mud flats and high tide line in saltwater marsh systems.	--/ST/--	**Suitable Conditions Absent:** The BSA does not contain tidal salt marshes or densely vegetated mudflats.
California Ridgway's rail *Rallus obsoletus obsoletus*	Previously known as California clapper rail (*R. longirostris obsoletus*). This species occurs within salt and brackish marshes dominated by pickleweed and Pacific cordgrass. Currently, this species is restricted to marsh areas within the vicinity of San Francisco Bay. The last California Ridgway's rail to be sighted in Morro Bay was documented in 1939 (documented as a California clapper rail).	FE/SE/FP	**Suitable Conditions Absent:** The BSA does not support salt or brackish water marsh.
California least tern *Sternula antillarum browni*	Largely a coastal species that feed on fish and nest on sandy dunes or beaches. Once a common species in California; currently nesting colonies are isolated to Southern California and scattered Bay Area beaches.	FE/SE/--	**Suitable Conditions Absent:** The site does not contain suitable foraging or nesting habitat.
least Bell's vireo *Vireo bellii pusillus*	Summer resident of southern California. Occur in low riparian areas in vicinity of water or in dry river bottoms below 2,000 feet (610 m) elevation. Nest along margins of bushes or twigs of willow, *Baccharis*, or mesquite.	FE/SE/--	**Suitable Conditions Absent:** The project site does not support riparian habitats.
Class Aves Other migratory bird species (nesting)	Annual grasslands, coastal scrub, chaparral, and oak woodlands may provide nesting habitat.	MBTA/--/--	**Suitable Conditions Present:** Suitable nesting habitat occurs throughout the site, including all of the structures, which may become more attractive to nesting birds as activity at the refinery decreases.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
Mammals			
pallid bat *Antrozous pallidus*	Prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	**Marginal Conditions Present**: suitable foraging habitat present. Potentially suitable roosting habitat on infrastructure, particularly if left unused for an extended period of time.
Townsend's big-eared bat *Corynorhinus townsendii*	Occur in a wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, require caves, mines, rock faces, bridges, or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/--/SSC	**Marginal Conditions Present**: suitable foraging habitat present. Potentially suitable roosting habitat on infrastructure, particularly if left unused for an extended period of time.
Silver-haired bat *Lasionycteris noctivagans*	The silver-haired bat is a forest bat, associated primarily with northern temperate zone conifer and mixed conifer/hardwood forests with available water (Pierson et al. 2006).	--/SA/--	**Suitable Conditions Absent:** The site does not support appropriate habitat types.
western red bat *Lasiurus blossevillii*	Roost primarily in trees, often in edge habitats adjacent to streams, fields, or urban areas. Mating occurs in August and September and young are born from late May through early July.	--/--/SSC	**Marginal Conditions Present:** Marginal to poor habitat suitability for this species. Marginal suitable habitat conditions present in eucalyptus trees.
Hoary bat *Lasiurus cinereus*	Occurs in open habitats and habitat mosaics with access to trees for cover. Roosts in dense foliage of medium to large trees.	--/SA/--	**Marginal Conditions Present**: Marginally suitable foraging habitat present. Marginally suitable roosting habitat present in eucalyptus trees.
Yuma myotis *Myotis yumanensis*	Near ponds, streams, lakes or other water sources supporting midges, moths, and other small insects. Maternity roosts are often found in caves, mines, buildings, or tree cavities.	--/SA/--	**Marginal Conditions Present:** Potentially suitable foraging habitat present. The eucalyptus trees and infrastructure provide potential roosting habitat. This species is highly associated with water; therefore, potential for this species to exist on the site is low.
American badger *Taxidea taxus*	Occur in open stages of shrub, forest, and herbaceous habitats; need uncultivated ground with friable soils.	--/--/SSC	**Suitable Conditions Present**: Suitable sandy soils onsite. Site provides suitable habitat and several potential burrow locations were observed during botanical surveys in 2023. Additionally, a badger has been observed in the restoration area in the southeastern part of the site (personal communication).

Source: Unless otherwise noted, all habitat and distribution data provided by the CNDDB (CDFW 2023b).

Status Codes:

-- = No status

Federal: FE = Federal Endangered; FT = Federal Threatened; FC = Federal Candidate; CH = Federal Critical Habitat; PCH = Proposed Federal Critical Habitat; MBTA = Protected by Federal Migratory Bird Treaty Act

State: SE = State Endangered; ST = State Threatened; SCT = State Candidate Threatened, SCE = State Candidate Endangered

CDFW: SSC = Species of Special Concern; FP = Fully Protected Species; SA = Not formally listed but included in CDFW "Special Animal" List; WL = Watch List

Rationale Terms: ***Species Present:*** Species was or has been observed in the survey area. ***Suitable Conditions Present:*** Survey area is within the species' range and supports the appropriate habitat, soils, elevation, and other habitat requirements. ***Marginal Conditions Present:*** Survey area is in the species' range and supports the appropriate habitat but other factors (past disturbances, presence of predators,

etc.) may preclude species occurrence. ***Suitable Conditions Absent:*** Survey area is not in the species' range and/or does not support the appropriate habitat, soils, elevation, and/or other habitat requirements.