TABLE C-1
Special-status Plant Species Considered for Potential for Presence in the Project Study Area

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
Hoover's bent grass *Agrostis hooveri*	-- / -- / 1B.2	• Chaparral, cismontane woodland, and valley and foothill grassland habitats; sandy soil • Flowers April-July • 60-600 meters	• Appropriate soils and habitat are present in mature coast live oak woodland in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	-- / -- / 1B.2	• Broad-leafed upland forest, coastal bluffs, closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland habitats; sandy soil • Flowers December-March • 30-310 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Santa Lucia manzanita *Arctostaphylos luciana*	-- / -- / 1B.2	• Chaparral and cismontane woodland habitats; shale soil • Flowers February-March • 350-850 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Morro manzanita *Arctostaphylos morroensis*	FT / -- / 1B.1	• Chaparral, cismontane woodland, coastal dune, and coastal scrub habitats; sandy loam soil • Flowers December-March • 5-205 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Pecho manzanita *Arctostaphylos pechoensis*	-- / -- / 1B.2	• Closed-cone coniferous forest, chaparral, and cismontane woodland habitats; shale soil • Flowers November-March • 125-850 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Santa Margarita manzanita *Arctostaphylos pilosula*	-- / -- / 1B.2	• Closed-cone coniferous forest, chaparral, and cismontane woodland habitats; shale soil • Flowers December-March • 170-1,100 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
sand mesa manzanita *Arctostaphylos rudis*	-- / -- / 1B.2	• Chaparral and coastal scrub habitats; sandy soil • Flowers November-February • 25-230 meters	• No suitable habitat occurs within the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Wells' manzanita *Arctostaphylos wellsii*	-- / -- / 1B.1	• Closed-cone coniferous forest and chaparral habitats; sandstone • Flowers December-April • 30-400 meters	• Shallow soil from sandstone provides potential habitat in oak woodland and scrub in the study area. • No manzanitas were observed during floristic surveys. • Not expected to occur onsite. • No further studies recommended.	Not significant
marsh sandwort *Arenaria paludicola*	FE / SE / 1B.1	• Bogs and fens along with freshwater marshes and swamps • Flowers May-August • 3-170 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Miles's milk-vetch *Astragalus didymocarpus* var. *milesianus*	-- / -- / 1B.2	• Coastal scrub habitat • Flowers March-June • 20-90 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Luis mariposa lily *Calochortus obispoensis*	-- / -- / 1B.2	• Chaparral, coastal scrub, and valley and foothill grassland habitat; serpentine soil • Flowers May-July • 75-730 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Luis Obispo mariposa lily *Calochortus simulans*	-- / -- / 1B.3	• Chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats; sandy, often granitic, sometimes serpentine soil • Flowers April-May • 395-1,100 meters	• Potential habitat occurs in grazed annual grassland and patches of coast live oak woodland in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies recommended.	Not significant
dwarf calycadenia *Calycadenia villosa*	-- / -- / 1B.1	• Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland; rocky, fine soil • Flowers May-October • 240-1,350 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
Cambria morning glory *Calystegia subacaulis* ssp. *episcopalis*	-- / -- / 1B.2	• Chaparral and cismontane woodland habitats • Flowers April-May • 60-500 meters	• Potential habitat occurs in annual grassland and agrestal areas in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies recommended.	Not significant
San Luis Obispo sedge *Carex obispoensis*	--/--/1B.2	• Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; often serpentine seeps • Flowers April-June • 10-790 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Obispo Indian paintbrush *Castilleja densiflora* ssp. *obispoensis*	-- / -- / 1B.2	• Valley and foothill grassland habitat • Flowers April-May • 10-400 meters	• Annual grassland onsite is suitable for this species. • Species was observed in agrestal and grazed annual grassland habitats in the study area during floristic surveys. • The applicant shall implement the Obispo Indian Paintbrush Mitigation and Monitoring Plan (Althouse and Meade, 2007c) to mitigate adverse effects to species.	Not significant with mitigation
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	-- / -- / 1B.2	• Valley and foothill grassland habitat; alkaline soil • Flowers May-November • 1-230 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	-- / -- / 1B.2	• Chaparral; serpentinite soil • Flowers May-August • 305-1000 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Brewer's spineflower *Chorizanthe breweri*	-- / -- / 1B.3	• Closed coniferous forest, chaparral, cismontane woodland, and coastal scrub habitats; gravelly or rocky serpentine soil • Flowers May-August • 45-800 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
straight-awned spineflower *Chorizanthe rectispina*	-- / -- / 1B.3	• Chaparral, cismontane woodland, and coastal scrub habitats • Flowers May-July • 85-1,035 meters	• Moderately appropriate habitat is present on upland slopes in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
Chorro Creek bog thistle *Cirsium fontinale* var. *obispoense*	FE / SE / 1B.2	• Chaparral and cismontane woodland habitats in association with serpentine seeps • Flowers February-July • 35-380 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
La Graciosa thistle *Cirsium lonchloepis*	FE / ST / 1B.1	• Coastal dunes, coastal scrub, and brackish marshes and swamps on mesic soil • Flowers May-August • 4-220 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
surf thistle *Cirsium rhothophilum*	-- / ST / 1B.2	• Coastal bluff scrub and coastal dune habitats • Flowers April-June • 3-60 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	FE / SR / 1B.1	• Cismontane woodland, valley foothill grasslands, and in openings along the margins of chaparral on sandy soil • Flowers May-July • 25-185 meters	• Upland slopes with annual grassland in sandy soils support suitable habitat in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
leafy tarplant *Deinandra increscens* ssp. *foliosa*	-- / -- / 1B.2	• Valley and foothill grasslands • Flowers June-September • 300-500 meters	• Grazed annual grassland supports suitable habitat in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
dune larkspur *Delphinium parryi* ssp. *foliosa*	-- / -- / 1B.2	• Maritime chaparral and coastal dune habitats • Flowers April-May • 0-200 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
umbrella larkspur *Delphinium umbraculorum*	-- / -- / 1B.3	• Cismontane woodland habitat • Flowers April-June • 400-1,600 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
beach spectaclepod *Dithyrea maritima*	-- / -- / 1B.2	• Coastal dune and coastal scrub habitats; sandy soil • Flowers March-May • 3-50 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
San Luis Obispo serpentine dudleya *Dudleya abramsii* ssp. *bettinae*	-- / -- / 1B.2	• Chaparral, coastal scrub and valley and foothill grassland habitats; serpentinite and rocky soil • Flowers May-July • 20-180 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Luis Obispo dudleya *Dudleya abramsii* ssp. *murina*	-- / -- / 1B.3	• Chaparral, cismontane woodland, and valley and foothill grassland habitats; serpentinite soil • Flowers May-June • 90-440 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	-- / -- / 1B.1	• Coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland habitats; rocky soil, often clay or serpentine • Flowers April-June • 5-450 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
yellow-flowered eriastrum *Eriastrum luteum*	-- / -- / 1B.2	• Broad-leafed upland forest, chaparral, and cismontane woodland habitats; sandy or gravelly soil • Flowers May-June • 290-1,000 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Blochman's leafy daisy *Erigeron blochmaniae*	-- / -- / 1B.2	• Coastal dune and coastal scrub habitats • Flowers July-August • 3-45 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Indian Knob mountainbalm *Eriodictyon altissimum*	FE / SE / 1B.1	• Chaparral, cismontane woodland, coastal scrub; sandstone soils • Flowers March-June • 80–270 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	-- / -- / 1B.1	• Vernal pools • Flowers in July • 3-45 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
Ojai fritillary *Fritillaria ojaiensis*	-- / -- / 1B.2	• Broad-leafed upland forest (mesic), chaparral, and lower montane coniferous forest habitats; rocky soil • Flowers March-May • 300-670 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Benito fritillary *Fritillaria viridea*	-- / -- / 1B.2	• Chaparral on serpentine soil • Flowers March-May • 200-1,525 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Francisco gumplant *Grindelia hirsutula* var. *maritma*	-- / -- / 1B.2	• Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy or serpentinite soils	• Although suitable habitat may be present, the study area is outside the known range of this species. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
mesa horkelia *Horkelia cuneata* ssp. *puberula*	-- / -- / 1B.1	• Chaparral, cismontane woodland, and coastal scrub habitats; sandy or gravelly soil • Flowers February-September • 70-810 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Kellogg's horkelia *Horkelia cuneata* ssp. *sericea*	-- / -- / 1B.1	• Closed cone coniferous forest, coastal scrub, and maritime chaparral habitats on openings of sandy or gravelly soil • Flowers April-September • 10-200 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Jones's layia *Layia jonesii*	-- / -- / 1B.2	• Chaparral and valley and foothill grassland habitats; clay or serpentine soils • Flowers March-May • 5-400 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Luis Obispo County lupine *Lupinus ludovicianus*	-- / -- / 1B.2	• Chaparral and cismontane woodland habitats; sandstone or sandy soils • Flowers April-July • 50-525 meters	• Moderately suitable habitat is present in oak woodland on sandy soils from calcareous sandstone in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
Nipomo Mesa lupine *Lupinus nipomensis*	FE / SE / 1B.1	• Coastal dunes • Flowers March-May • 10-50 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Carmel Valley bush mallow *Malacothamnus palmeri* var. *involucratus*	-- / -- / 1B.2	• Chaparral, cismontane woodland, coastal scrub • Flowers May-August (October • 30-1,100 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Luis Obispo monardella *Monardella frutescens*	-- / -- / 1B.2	• Coastal dune and coastal scrub habitats on sandy soil • Flowers May-September • 10-200 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Palmer's monardella *Monardella palmeri*	-- / -- / 1B.2	• Chaparral and cismontane woodland habitats on serpentinite soil • Flowers June-August • 200-800 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
California spineflower *Mucronea californica*	-- / -- / 4.2	• Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy soils	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Gambel's water-cress *Nasturtium gambelii*	FE / ST / 1B.1	• Freshwater or brackish marshes and swamps • Flowers April-September • 5-330 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
California Orcutt grass *Orcuttia californica*	FE / SE / 1B.1	• Vernal pools • Flowers April-August • 15-660 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
white rabbit-tobacco *Pseudognaphalium leucocephalum*	-- / -- / 2.2	• Chaparral, cismontane woodland, coastal scrub, riparian woodland; sandy, gravelly soils	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
adobe sanicle *Sanicula maritima*	-- / SR / 1B.1	• Chaparral, prairie, meadows and seeps, and grassland habitats; clay and serpentine soil • Flowers February-May • 30-240 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
black-flowered figwort *Scrophularia atrata*	-- / -- / 1B.2	• Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub habitats; calcareous (sometimes diatomaceous) soils • Flowers March-July • 10-500 meters	• Moderately suitable habitat is present in the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
rayless ragwort *Senecio aphanactis*	-- / -- / 2.2	• Chaparral, cismontane woodland, and coastal scrub habitats; alkaline soil • January-April • 15-800 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Cuesta Pass checkerbloom *Sidalcea hickmanii* ssp. *anomala*	-- / SR / 1B.2	• Closed-cone coniferous forest on serpentine soil • Flowers May-June • 600-800 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Parish's checkerbloom *Sidalcea hickmanii* ssp. *parishii*	FC / -- / 1B.2	• Chaparral, cismontane woodland, lower montane coniferous forest • Flowers June-August • 1000-2135 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
most beautiful jewel-flower *Streptanthus albidus* ssp. *Peramoenus*	-- / -- / 1B.2	• Chaparral, cismontane woodland, and valley and foothill grassland habitats; serpentine soil • Flowers April-June • 110-1,000 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
San Bernardino aster *Symphyotrichum defoliatum*	-- / -- / 1B.2	• Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, grassland; near ditches, streams, springs. • Flowers July-November • 2-2,040 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / CNPS Status & Threat Code	General Habitat Description and Blooming Period	Potential for Presence and Rationale	Effect of Proposed Activity
saline clover *Trifolium depauperatum* var. *hydrophilum*	-- / -- / 1B.2	• Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. • Flowers April-June • 0-300 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
caper-fruited tropidocarpum *Tropidocarpum capparideum*	-- / -- / 1B.1	• Valley and foothill grassland habitats on alkaline hills. • Flowers March-April • 1-455 meters	• No suitable habitat occurs within the study area. • Not observed during floristic surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Status Codes:
Federal
FE = Federally Endangered
FT = Federally Threatened
FC = Federal Candidate

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

California Native Plant Society (CNPS):
List 1B = rare, threatened, or endangered in California and elsewhere.
List 2 = rare, threatened, or endangered in California, but more common elsewhere.
List 4 = Watch List

Threat Code:
.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)
.3 = Not very endangered in California (<20% of occurrences threatened or no current threats known)

TABLE C-2
Special-status Animal Species Considered for Potential for Presence in the Project Study Area

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
Invertebrates				
San Luis Obispo pyrg *Pyrgulopsis taylori*	-- / -- / SA	Freshwater habitats; known from San Luis Obispo County springs and streams.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
mimic tryonia (=California brackishwater snail) *Tryonia imitator*	-- / -- / SA	Coastal lagoons, estuaries, and salt marshes from Sonoma County, south to San Diego County.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
longhorn fairy shrimp *Branchinecta longiantenna*	FE / -- / --	Clear to turbid vernal pools, including clear water depressions inn sandstone, grass-bottom pools, and claypan pools.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
vernal pool fairy shrimp *Branchinecta lynchi*	FT / -- / --	Vernal pools, usually less than 0.05 acres in size; mud or grass-lined swales or basalt flow depression pools in unplowed grasslands.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
California linderiella *Linderiella occidentalis*	-- / -- / SA	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
sandy beach tiger beetle *Cicindela hirticollis gravida*	-- / -- / SA	Areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico; inhabits clean, cry, light-colored sand in the upper zone; subterranean larvae found in moist sand not affected by wave action.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
white sand bear scarab beetle *Lichnanthe albipilosa*	-- / -- / SA	Coastal sand dunes in the vicinity of dune lakes.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
Rude's longhorn beetle *Necydalis rudei*	-- / -- / SA	From sand dunes at Oso Flaco Lake; larvae live in root crown and lower stem area of mock heather (*Ericameria ericoides*).	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Atascadero June beetle *Polyphylla nubila*	-- / -- / SA	Known only from sand dunes in Atascadero and San Luis Obispo, San Luis Obispo County.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Oso Flaco robber fly *Ablautus schlingeri*	-- / -- / SA	Occurs in sand dunes and other sandy areas in the vicinity of Oso Flaco Lake near the Oceano Dunes, California.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Oso Flaco flightless moth *Areniscythris brachypteris*	-- / -- / SA	Open, coastal sand dune slopes in San Luis Obispo County; larvae live in tubes attached to buried, green parts of plants at the margin of the active, moving sand dunes.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Oso Flaco patch butterfly *Chlosyne leanira elegans*	-- / -- / SA	Sand dune habitat around Oso Flaco Lake, San Luis Obispo County; distribution corresponds to its food plant, Indian paintbrush (Ca*stilleja affinis*).	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
monarch butterfly *Danaus plexippus*	-- / -- / SA	Coastal eucalyptus and Monterey cypress stands.	• No suitable habitat and no appropriate roosts occur within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Smith's blue butterfly *Euphilotes enoptes smithi*	FE / -- / --	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz Counties.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Morro Bay blue butterfly *Plebejus icarioides moroensis*	-- / -- / SA	Inhabits stabilized dunes and adjacent areas of coastal San Luis Obispo and Santa Barbara Counties; dune lupine (*Lupinus chamissonis*) is larval food plant.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
Fish				
steelhead – south/central California coast ESU *Oncorhynchus mykiss irideus*	FT / -- / CSC	Clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, 1:1 pool-to-riffle ratio.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
tidewater goby *Eucyclogobius newberryi*	FE / -- / CSC	Brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Amphibians				
California tiger salamander *Ambystoma californiense*	FT / -- / CSC	Grassland or open woodland habitats, shallow ephemeral, semi-permanent, or occasionally permanent pools and ponds that fill during winter rains. Needs small mammal burrows for estivation.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Coast Range newt *Taricha torosa torosa*	-- / -- / CSC	Breed in ponds, reservoirs, and slow-moving streams. Frequent terrestrial habitats.	• Aquatic habitat within the drainage in the study area is not suitable. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
western spadefoot *Spea (=Scaphiopus) hammondii*	-- / -- / CSC	Annual grassland habitats, open sandy floodplains, alluvial terraces.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
California red-legged frog *Rana aurora draytonii*	FT / -- / CSC	Aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 2.3 feet, and the presence of fairly sturdy underwater supports such as cattails.	• Moderately suitable habitat is present within the drainage in the study area. • Not observed during protocol surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
Reptiles				
southwestern pond turtle *Actinemys marmorata pallida*	-- / -- / CSC	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	• Moderately suitable habitat is present within the reservoir and drainage in the study area. • Not observed during surveys. • Potential for occurrence onsite. • No further studies necessary.	Not significant with mitigation
coast (California horned lizard) *Phrynosoma coronatum (frontale)*	-- / -- / CSC	Frequents a wide variety of habitats. Most commonly occurring in lowlands along sandy washes with scattered low bushes.	• No suitable habitat occurs within the study area. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
silvery legless lizard *Anniella pulchra pulchra*	-- / -- / CSC	Sandy or loose loamy soils under sparse vegetation. Soils with high moisture content.	• Moderately suitable habitat in suitable soils is present within the study area. • Not observed during surveys. • Potential for occurrence onsite. • No further studies necessary.	Not significant with mitigation
two-striped garter snake *Thamnophis hammondii*	-- / -- / CSC	Found in coastal California from the vicinity of Salinas to northwest Baja California, from sea level to 7,000 ft; highly aquatic; found in or near permanent freshwater, often along streams with rocky beds and riparian growth.	• Aquatic habitat within the drainage in the study area is not suitable. • Not observed during surveys. • Not expected to occur onsite. • No further studies necessary.	Not significant
Birds				
California condor *Gymnogyps californianus*	FE, MBTA / SE, FP / CA Fish and Game Code	Nests in association with rocky cliffs. Forages in open savannah, grasslands, and foothill chaparral with cliffs, trees, and snags.	• No suitable nesting habitat occurs within the study area; species unlikely forages within study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
sharp-shinned hawk (nesting) *Accipiter striatus*	MBTA / -- / CSC, CA Fish and Game Code	Nesting - ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats; prefers riparian areas; north-facing slopes with plucking perches are critical requirements; nests near water.	• Marginal nesting habitat in oak woodland and riparian habitats within the study area; may also forage in the study area. • Not observed during surveys. • Potential for nesting within the study area. • No further studies necessary.	Not significant with mitigation

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
ferruginous hawk (wintering) *Buteo regalis*	MBTA / -- / CSC, CA Fish and Game Code	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon-juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	• May forage or be a winter resident in the study area; could winter roost in oak trees. Not likely to nest in the study area as the species does not typically nest in California. • Not observed during surveys. • Potential for winter roosting within the study area. • No further studies necessary.	Not significant with mitigation
white-tailed kite (nesting) *Elanus leucurus*	MBTA/ FP / CA Fish and Game Code	Open grasslands, meadows, or marshlands for foraging close to isolated dense-topped trees for nesting and perching.	• Suitable nesting habitat in oak woodland and riparian habitats within the study area; may also forage in the study area. • Not observed during surveys. • Potential for nesting within the study area. • No further studies necessary.	Not significant with mitigation
bald eagle (nesting and wintering) *Haliaeetus leucocephalus*	FD, MBTA/ FP / CA Fish and Game Code	Nests and winters along ocean shores, lake margins, and rivers. Most nests are within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	• No suitable nesting or winter roosting habitat occurs within the study area; species unlikely forages within study area. • Not observed during surveys. • Not expected to nest or winter roost onsite. • No further studies necessary.	Not significant
prairie falcon (nesting) *Falco mexicanus*	MBTA / -- / CSC, CA Fish and Game Code	Primarily perennial grasslands, savannahs, rangeland. Nests on sheltered ledges of cliffs. Not in coastal fog belt or coastline.	• No suitable nesting habitat occurs within the study area; species may occasionally forage within study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
American peregrine falcon (nesting) *Falco peregrinus anatum*	FD, MBTA / SE, FP / CA Fish and Game Code	Nests on cliffs, banks, dunes, mounds, and human-made structures, especially near water.	• Peregrine falcons forage in open areas in Carpenter Canyon, including the Cold Canyon landfill, but no suitable nesting habitat occurs within the study area. • Peregrine falcons were observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
western snowy plover (wintering) *Charadrius alexandrinus nivosus*	FT, MBTA / --/ CSC, CA Fish and Game Code	Sandy marine and estuarine shores.	• No suitable nesting or foraging habitat occurs within the study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
California least tern *Sterna antillarum browni*	FE, MBTA / SE / CA Fish and Game Code	Nests on open, sandy or gravelly shores near shallow-water feeding areas in estuaries.	• No suitable nesting or foraging habitat occurs within the study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	FC, MBTA / SE / CA Fish and Game Code	Forests to open riparian woodlands with thick understory.	• No suitable nesting or foraging habitat occurs within the study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
burrowing owl (burrow sites and wintering sites) *Athene cunicularia*	MBTA / -- / CSC, CA Fish and Game Code	Open, dry annual or perennial grasslands, deserts and scrublands with low-growing vegetation. Subterranean nester, dependent upon burrowing mammals.	• Grasslands in study area occur primarily along slopes; tall, dense weeds and ongoing disturbances have degraded potential burrowing habitat, making it unsuitable. • No burrowing owls or owl burrows observed during surveys. • Not expected to use dens within the study area. • No further studies necessary.	Not significant
California horned lark *Eremophila alpestris actia*	MBTA / -- / CSC, CA Fish and Game Code	Short grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	• Grasslands in study area occur primarily along slopes; tall, dense weeds and ongoing disturbances have degraded potential nesting habitat, making it unsuitable. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
purple martin (nesting) *Progne subis*	MBTA / -- / CSC, CA Fish and Game Code	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities and man-made structures.	• No suitable nesting habitat occurs within the study area; species may occasionally forage within study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
loggerhead shrike (nesting) *Lanius ludovicianus*	MBTA / -- / CSC, CA Fish and Game Code	Nests in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes; prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	• Suitable nesting and foraging habitat within the study area. • Logger head shrikes were observed during surveys. • Potential for nesting within the study area. • No further studies necessary.	Not significant with mitigation

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
least Bell's vireo *Vireo bellii pusillus* (nesting)	FE, MBTA / SE / CA Fish and Game Code	(Nesting) summer resident of southern California in low riparian habitat in vicinity of water or in dry river bottoms, below 2000 feet elevation. Nests placed along margins of bushes or on twigs projecting into pathways, usually *Salix*, *Baccharis*, and mesquite.	• No suitable nesting or foraging habitat occurs within the study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
tricolored blackbird (nesting colony) *Agelaius tricolor*	MBTA / -- / CSC, CA Fish and Game Code	Open water, tall and dense cattails or tules. Large nesting colonies near cropland and insect prey base.	• No suitable colonial nesting habitat present within the study area. • Not observed during surveys. • Not expected to nest within the study area. • No further studies necessary.	Not significant
other nesting birds Class Aves	MBTA / -- / CA Fish and Game Code	Various habitats (nesting).	• Various bird species may nest or forage in oak woodland and riparian habitats within the study area. • Several species of birds were observed nesting in the willow canopy near Highway 227. • Potential for nesting within the study area. • No further studies necessary.	Not significant with mitigation
Mammals				
pallid bat *Antrozous pallidus*	-- / -- / CSC	Roosts in deep crevices, caves, mines, rock faces, bridges and buildings.	• Cavities and loose bark in oak trees as well as old buildings on site are appropriate habitat. • No bats observed during surveys. • Potential for roosting within the study area. • No further studies necessary.	Not significant with mitigation
Townsend's big-eared bat *Corynorhinus townsendii*	-- / -- / CSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	• Cavities and loose bark in oak trees as well as old buildings on site are appropriate habitat. • No bats observed during surveys. • Potential for roosting within the study area. • No further studies necessary.	Not significant with mitigation
western red bat *Lasiurus blossevillii*	-- / -- / CSC	Roosts primarily in trees, two to 40 feet above ground, from sea-level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	• Cavities and loose bark in oak trees are appropriate habitat. • No bats observed during surveys. • Potential for roosting within the study area. • No further studies necessary.	Not significant with mitigation

Common and Scientific Names	Federal / State / Other Status	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
western mastiff bat *Eumops perotis californicus*	-- / -- / CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and other habitats. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	• Cavities and loose bark in oak trees as well as old buildings on site are appropriate habitat. • No bats observed during surveys. • Potential for roosting within the study area. • No further studies necessary.	Not significant with mitigation
Yuma myotis *Myotis yumanensis*	-- / -- / CSC	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies occur in caves, buildings, or crevices.	• Cavities and loose bark in oak trees as well as old buildings on site are appropriate habitat. • No bats observed during surveys. • Potential for roosting within the study area. • No further studies necessary.	Not significant with mitigation
American badger *Taxidea taxus*	-- / -- / CSC	Occurs in drier open stages of shrub, forest, and herbaceous habitats, with friable soils; needs sufficient food and open, uncultivated ground; digs burrows.	• Moderately suitable habitat is present within the study area. • Not observed during surveys. • Potential for denning within the study area. • No further studies necessary.	Not significant with mitigation

Status Codes:

Federal
FE = Federal Endangered
FT = Federal Threatened
FC = Federal Candidate
FD = Federal Delisted
CH = Federally designated critical habitat occurs in the project area
MBTA = Protected by Federal Migratory Bird Treaty Act

State
SE = State Endangered
ST = State Threatened
FP = Fully Protected

California Department of Fish and Game
CSC = California Special Concern species
SA = CNDDB Special Animal
CA Fish and Game Code = Protected by State Fish and Game Code

TABLE C-3
Sensitive Natural Communities Considered for Potential for Presence in the Project Study Area

Name	General Habitat Description	Potential for Presence and Rationale	Effect of Proposed Activity
Central Foredunes	Dominated by perennial grasses (to 70 cm tall) and low, often succulent, perennial herbs and subshrubs (about 10 cm tall). Coverage is nearly complete to sparse/scattered. Species typically are zoned, with *Abronia*, *Ambrosia*, and *Cakile* spp. occurring in the sites most exposed to wind and Calystegia and Camissonia in more sheltered sites.	No potential. Dune habitat does not occur in the study area.	Not significant
Central Maritime Chaparral	A variable sclerophyllous (thick-leaved) scrub of moderate to high cover (50 to 100 percent) dominated by forms of *Arctostaphylos tomentosa* and other manzanita species.	No potential. Chaparral habitat does not occur in the study area.	Not significant
Coastal and Valley Freshwater Marsh	Dominated by perennial, emergent monocots four to five meters tall such as *Scirpus* and *Typha* spp., often forming closed canopies. Occurs in quiet sites (lacking significant current) permanently flooded by fresh water (rather than brackish, alkaline, or variable).	No potential. Marsh habitat does not occur in the study area.	Not significant
Northern Interior Cypress Forest	An open, fire-maintained scrubby forest dominated by one of several *Cupressus* spp.	No potential. Cypress forest habitat does not occur in the study area.	Not significant
Serpentine Bunchgrass	Restricted to serpentinite rock sites. Open grassland dominated by perennial bunchgrasses. Cover is typically low, but markedly dominated by native species. Widely scattered throughout the Coast Ranges.	No potential. Serpentinite soils and habitat do not occur in the study area.	Not significant