

APPENDIX 3.7-A: SPECIAL-STATUS SPECIES SUBJECT TO PROJECT IMPACTS

Since publication of the Draft Environmental Impact Report/Environmental Impact Statement, the following substantive changes have been made to this appendix:

- Table 2 was updated to address the California Fish and Game Commission’s designation of the southern California/Central Coast population of mountain lion under the California Endangered Species Act and the monarch butterfly’s status as a candidate for listing under the federal Endangered Species Act.

Table 1 Special-Status Plant Species Potentially Subject to Project Impacts

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Alkali milkvetch <i>Astragalus tener</i> var. <i>tener</i>	–/–/1B.2	Playas, on adobe clay in valley and foothill grassland, vernal pools on alkaline soils; 1-60 meters	Nine CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Bent-flowered fiddleneck <i>Amsinckia lunaris</i>	–/–/1B.2	Coastal bluff scrub, valley and foothill grasslands, cismontane woodlands; 3-500 meters	Two CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	–/–/1B.2	Sometimes on serpentine soils in chaparral, cismontane woodland, valley and foothill grassland; 90-1,555 meters	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Monterey Corridor Subsection.
Brittlescale <i>Atriplex depressa</i>	–/–/1B.2	Alkaline clay soils in chenopod scrub, playas, valley and foothill grasslands; 1-320 meters	Two CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
California alkali grass <i>Puccinellia simplex</i>	–/–/1B.2	Alkaline, vernal mesic; sinks, flats, and lake margins in chenopod scrub, meadows and seeps, valley and foothill grasslands, and vernal pools; 2-930 meters	Seven CNDDDB specific extant occurrence polygons in regional RSA; two overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.
Caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	–/–/1B.1	Grasslands on alkaline hills; below 455 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for all subsections.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Chaparral ragwort <i>Senecio aphanactis</i>	-/-/2B.2	Oak woodland, coastal scrub, chaparral, open sandy or rocky areas, on alkaline soils; 15-800 meters	Three CNDDDB specific extant occurrence polygons in regional RSA; two overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass Subsection.
Colusa grass <i>Neostapfia colusana</i>	FT/SE/1B.1	Adobe soils of large vernal pools; 5-200 meters	38 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	-/-/1B.1	Alkaline soils in annual grassland, on lower slopes, flats, and swales, sometimes on saline soils; below 230 meters	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Jose Diridon Station Approach and Monterey Corridor Subsections.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	-/-/1B.1	Coastal salt marshes and swamps, grasslands, vernal pools, alkali sinks, playas, in alkaline soils; 1-1,220 meters	Three CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Coyote ceanothus <i>Ceanothus ferrisiae</i>	FE/-/1B.1	Serpentine soils in chaparral, coastal scrub, and valley and foothill grassland; 120-460 meters	Seven CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.
Delta button-celery <i>Eryngium racemosum</i>	-/SE/1B.1	Riparian scrub in seasonally inundated depressions on clay soils; 3-30 meters	18 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Fragrant fritillary <i>Fritillaria liliacea</i>	-/-/1B.2	Adobe soils of interior foothills, coastal prairie, coastal scrub, valley and foothill grassland, often on serpentinite; 3-410 meters	14 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Monterey Corridor and Morgan Hill and Gilroy Subsections.
Greene's tuctoria <i>Tuctoria greenei</i>	FE/SR/1B.1	Dry vernal pools; 30-1,070 meters	Six CNDDDB specific extant occurrence polygons in the regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Hairless popcornflower <i>Plagiobothrys glaber</i>	-/-/1A	Alkaline meadows and seeps, coastal salt marsh and swamps; 15-180 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.
Hairy Orcutt grass <i>Orcuttia pilosa</i>	FE/SE/1B.1	Vernal pools; 46-200 meters	One CNDDDB specific extant occurrence polygon in the regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Hall's bush-mallow <i>Malacothamnus hallii</i>	-/-/1B.2	Chaparral and coastal scrub; 10-760 meters	28 CNDDDB specific extant occurrence polygons in regional RSA; four overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections.
Heartscale <i>Atriplex cordulata</i> var. <i>cordulata</i>	-/-/1B.2	Saline or alkaline areas in chenopod scrub, meadows and seeps, sandy soils in valley and foothill grassland; below 560 meters	14 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Hispid salty bird's-beak <i>Chloropyron molle</i> ssp. <i>hispidum</i>	-/-/1B.1	Meadow and seeps, valley and foothill grassland, playa, on alkaline soils; 1-155 meters	28 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for all subsections.
Hoover's cryptantha <i>Cryptantha hooveri</i>	-/-/1A	Coarse, sandy soil in valley and foothill grassland; 9-150 meters	One CNDDDB specific extant occurrence polygon in regional RSA does not overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass and San Joaquin Valley Subsections.
Hoover's spurge <i>Euphorbia hooveri</i>	FT/-/1B.2	Below the high-water mark of large northern hardpan and volcanic vernal pools; 25-250 meters	One occurrence polygon in regional RSA does not overlap with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	-/-/1B.1	Vernal pools; 3-45 meters	Three CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Hospital Canyon larkspur <i>Delphinium californicum</i> ssp. <i>interius</i>	-/-/1B.2	Openings in chaparral, mesic cismontane woodland, on moist slopes and ravines; 195-1,095 meters	10 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Indian Valley bush-mallow <i>Malacothamnus aboriginum</i>	-/-/1B.2	Granitic rocky areas in chaparral and oak woodland, often in burned areas; 150-1,700 meters	Two CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.
Legenere <i>Legenere limosa</i>	-/-/1B.1	Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks; below 880 meters	One CNDDDB specific extant occurrence polygons in regional RSA does not overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Lemmon's jewelflower <i>Caulanthus lemmonii</i>	-/-/1B.2	Dry, exposed slopes in grasslands and pinyon-juniper woodland; 80-1,220 meters	Four CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass Subsection.
Lesser saltscale <i>Atriplex minuscula</i>	-/-/1B.1	Sandy alkaline soils in chenopod scrub, playas, valley and foothill grassland; 15-200 meters	Five CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Lime Ridge navarretia <i>Navarretia gowenii</i>	-/-/1B.1	Chaparral; 180-305 meters	One CNDDDB specific extant occurrence polygons in regional RSA does not overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass Subsection.
Little mousetail <i>Myosurus minimus</i> ssp. <i>apus</i>	-/-/3.1	Valley and foothill grassland, alkaline vernal pools; 20-640 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Loma Prieta hoita <i>Hoita strobilina</i>	-/-/1B.1	On mesic usually serpentinite substrates in chaparral, cismontane woodland, and riparian woodland; 30-860 meters	25 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Lost Hills crownscale <i>Atriplex coronata</i> var. <i>vallicola</i>	-/-/1B.2	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools; 50-635 meters	Two CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass and San Joaquin Valley Subsections.
Metcalf Canyon jewelflower <i>Streptanthus albidus</i> ssp. <i>albidus</i>	FE/-/1B.1	Valley and foothill grassland, on serpentinite; 45-800 meters	33 CNDDDB specific extant occurrence polygons in the regional RSA; one overlaps with special-status plant study area at Communication Hill in the Monterey Corridor Subsection. Modeled habitat present in the special-status plant study area for Monterey Corridor and Morgan Hill and Gilroy Subsections.
Most beautiful jewelflower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	-/-/1B.2	On serpentinite outcrops in chaparral, cismontane woodland, valley and foothill grassland, on ridges and slopes; 95-1,000 meters	49 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Monterey Corridor and Morgan Hill and Gilroy Subsections.
Mount Diablo cottonweed <i>Micropus amphibolus</i>	-/-/3.2	Rocky sites in broadleaved upland forest, mixed evergreen forest, oak woodland, chaparral, valley and foothill grasslands; 45-825 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Pacheco Pass Subsection.
Mount Hamilton fountain thistle <i>Cirsium fontinale</i> var. <i>campylon</i>	-/-/1B.2	Freshwater seeps and streams on serpentinite outcrops, chaparral, cismontane woodland, valley and foothill grassland; 100-890 meters	38 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Palmate-bracted bird's-beak <i>Chloropyron palmatum</i>	FE/SE/1B.1	Alkaline sites (wetlands) in grassland and chenopod scrub; 5-155 meters	No known occurrences in regional RSA. Modeled habitat present in San Joaquin Valley Subsection.
Pink creamsacs <i>Castilleja rubicundula</i> var. <i>rubicundula</i>	-/-/1B.2	Serpentine soils in chaparral openings, cismontane woodland, meadows and seeps, and valley and foothill grassland; 20-910 meters	No known occurrences in regional RSA. Modeled habitat present in the Morgan Hill and Gilroy Subsection.
Prostrate vernal pool navarretia <i>Navarretia prostrata</i>	-/-/1B.1	Vernal pools and mesic areas in coastal scrub and alkali grasslands; 15-1,210 meters	Nine CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Recurved larkspur <i>Delphinium recurvatum</i>	-/-/1B.2	Alkaline soils in valley and foothill grassland, saltbush scrub, cismontane woodland; 3-790 meters	Seven CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass and San Joaquin Valley Subsections.
Round-leaved filaree <i>California macrophylla</i>	-/-/1B.1	Cismontane woodland, valley and foothill grassland on clay soils; 15-1,200 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.
Saline clover <i>Trifolium hydrophilum</i>	-/-/1B.2	Salt marsh, mesic alkaline areas in valley and foothill grasslands, vernal pools, marshes and swamps; below 300 meters	Six CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections.
San Antonio Hills monardella <i>Monardella antonina</i> ssp. <i>antonina</i>	-/-/3	Chaparral, oak woodland, open rocky slopes; 320-1,000 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
San Francisco collinsia <i>Collinsia multicolor</i>	-/-/1B.2	Closed-cone coniferous forest, coastal scrub; 30-250 meters	Four CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections.
San Joaquin Orcutt grass <i>Orcuttia inaequalis</i>	FT/SE/1B.1	Vernal pools; 10-755 meters	20 CNDDDB specific extant occurrence polygons in the regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
San Joaquin spearscale <i>Extriplex joaquinana</i>	-/-/1B.2	Alkaline soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland; 1-835 meters	Six CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Jose Diridon Station Approach, Monterey Corridor, Morgan Hill and Gilroy, and San Joaquin Valley Subsections.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	-/-/1B.2	Freshwater marshes, sloughs, canals, and other slow-moving water habitats; below 650 meters	Eight CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass and San Joaquin Valley Subsections.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Santa Clara Valley dudleya <i>Dudleya abramsii</i> ssp. <i>setchellii</i>	FE/-/1B.1	On rocky serpentinite sites in cismontane woodland, valley and foothill grassland; 60-455 meters	55 CNDDDB specific extant occurrence polygons in the regional RSA; one overlaps with special-status plant study area north of Dana Rock Park (CNDDDB occurrence 12) in Monterey Corridor Subsection. Modeled habitat present in the special-status plant study area for Monterey Corridor and Morgan Hill and Gilroy Subsections.
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radians</i>	-/-/1B.2	Mesic areas with heavy clay soils, in swales and clay flats, in oak woodland, grassland; 76-1,000 meters	34 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Pacheco Pass Subsection.
Showy golden madia <i>Madia radiata</i>	-/-/1B.1	Oak woodland, valley and foothill grassland, slopes; 25-1,215 meters	One CNDDDB specific extant occurrence polygons in regional RSA does not overlap with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Slender-leaved pondweed <i>Stuckenia filiformis</i> ssp. <i>alpina</i>	-/-/2B.2	Freshwater marsh, shallow emergent wetlands and freshwater lakes, drainage channels; 300-2,150 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	-/-/1B.2	On serpentinite in chaparral, oak woodland, often on roadsides; 120-420 meters	41 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections.
Tiburon paintbrush <i>Castilleja affinis</i> var. <i>neglecta</i>	FE/ST/1B.2	Serpentine grasslands; 60-400 meters	Two specific extant occurrence polygons in the regional RSA; none overlaps with special-status plant study area. Habitat was not modeled due to uncertainty of habitat parameters.
Two-fork clover <i>Trifolium amoenum</i>	FE/-/1B.1	Coastal bluff scrub, valley and foothill grasslands (sometimes serpentine); 5-415 meters	No known occurrences in regional RSA. Modeled habitat present in the Morgan Hill and Gilroy Subsection.
Vernal barley <i>Hordeum intercedens</i>	-/-/3.2	Coastal dunes, coastal scrub, vernal pools, saline streambeds, alkali flats, saline flats and depressions in valley and foothill grassland; 5-1,000 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.

Common Name Scientific Name	Status ¹ Federal/State/CRPR	General Habitat Description	Occurrence in Regional RSA
Vernal pool smallscale <i>Atriplex persistens</i>	-/-/1B.2	Dry beds of vernal pools on alkaline soils; 10-115 meters	16 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.
Woodland woollythreads <i>Monolopia gracilens</i>	-/-/1B.2	Serpentinite soils in openings in broadleafed upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland; 100-1,200 meters	25 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Woolly-headed lessingia <i>Lessingia hololeuca</i>	-/-/3	Clay or serpentinite soils of broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland; 15-305 meters	No known occurrences in regional RSA. Modeled habitat present in special-status plant study area for Morgan Hill and Gilroy Subsection.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	-/-/2B.1	On alkaline soils in floodplains, meadows and seeps, marshes and swamps, riparian forest, vernal pools; 5-435 meters	Two CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with special-status plant study area. Modeled habitat present in special-status plant study area for San Joaquin Valley Subsection.

¹ Species Status:

- = No status designation

Federal

FD = Delisted. Status to be monitored for 5 years.

FE = Listed as endangered under the federal Endangered Species Act.

FT = Listed as threatened under the federal Endangered Species Act.

State

SE = Listed as endangered under the California Endangered Species Act.

ST = Listed as threatened under the California Endangered Species Act.

SR = Listed as rare under the California Endangered Species Act.

SSC = California Species of Special Concern

CRPR (California Rare Plant Rank)

1A = Presumed extinct in California

1B = Rare, threatened, or endangered in California and elsewhere

2B = Rare, threatened, or endangered in California, but more common elsewhere

3 = More information needed about this plant (Review List).

.1: Seriously endangered in California

.2: Fairly endangered in California

.3: Not very endangered in California

Table 2 Special-Status Wildlife Species Potentially Subject to Project Impacts

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Invertebrates			
Monarch butterfly <i>Danaus plexippus</i>	C/-	Occurs throughout the United States and Canada where milkweed species (<i>Asclepias</i> spp.), their host plants, are present. Habitat includes breeding, migratory, and overwintering sites with both milkweed plants as well as other floral resources (nectar sources). Milkweed plants and other floral resources can be found in a variety of natural and manipulated landscapes. Overwintering sites occur in coastal California on groves of trees generally very close to the ocean or San Francisco Bay.	Only overwintering sites are currently tracked in CNDDDB and none occur within the RSA. Numerous records from a variety of sources indicate that milkweed plants and monarch butterflies are present in the RSA.
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT(CH)/-	Occurs in serpentine grassland vegetation in Santa Clara and San Mateo Counties. Primary host plant is dwarf plantain (<i>Plantago erecta</i>); secondary host plants are purple owl's-clover (<i>Castilleja densiflora</i>) and exserted paintbrush (<i>Castilleja exserta</i>) Physical or biological features of critical habitat include annual or perennial grassland with little or no overstory that provide north-south and east-west slopes with a tilt of no more than 7 degrees for larval host plant survival during atypical weather; the primary host plant and at least one secondary host plant; adult nectar sources for feeding; soils derived from serpentine rock; and stable holes and cracks in the soil, and rock outcrops that provide shelter for larvae during summer diapause.	11 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA at Tulare Hill in the Santa Clara Valley (CDFW 2016a). Modeled habitat present in HSA for Monterey Corridor and Morgan Hill and Gilroy Subsections. Designated critical habitat present in Morgan Hill and Gilroy Subsection; Tulare Hill Unit (Unit 6) overlaps with HSA at Monterey Road and Metcalf Road; San Marin Unit (Unit 12) includes several network upgrade sites.
Crotch bumble bee <i>Bombus crotchii</i>	-/SCE	Open grassland and scrub in the Mediterranean region of California from along the Pacific Coast through the Inner Coast ranges and Great Central Valley into the Sierra foothills and the western portion of the Mohave Desert. Nests underground. Little known about overwintering sites but likely overwinters in soft, disturbed soils or under leaf litter or other ground debris like other bumble bees. Feeds on nectar and pollen from a variety of flowering plants, primarily those in the plant families Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae.	One CNDDDB specific occurrence polygon in regional RSA that does not overlap with HSA. One verified iNaturalist observation ² in regional RSA west of Santa Teresa County Park in south San Jose that also does not overlap with HSA (2.5 miles outside project footprint). Modeled habitat present in HSA for all subsections.

Common Name <i>Scientific Name</i>	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	FE(CH)-	<p>Found in large, deep, and turbid pools in the northern 2/3 of the Central Valley; inhabit pools located in swales formed by old, braided alluvium, filled by winter/spring rains, which last until June.</p> <p>Physical or biological features of critical habitat include topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in continuous, or intermittently, flowing surface water connecting depressional features with underlying restrictive soil layers that become inundated by winter rains and continuously hold water for a minimum of 19 days; sources of food (e.g., single-celled bacteria and algae) in the pools; and structure in the pools consisting of organic and inorganic materials (e.g., living and dead plants, rocks) that provide shelter.</p>	13 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for San Joaquin Valley Subsection.
Longhorn fairy shrimp <i>Branchinecta longiantenna</i>	FE(CH)-	<p>Endemic to the eastern margin of the central Coast Range in vernal pool grassland. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.</p> <p>Physical or biological features of critical habitat include topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in continuous, or intermittently, flowing surface water connecting depressional features with underlying restrictive soil layers that become inundated by winter rains and continuously hold water for a minimum of 23 days; sources of food (e.g., single-celled bacteria and algae) in the pools; and structure in the pools consisting of organic and inorganic materials (e.g., living and dead plants, rocks) that provide shelter.</p>	Two specific extant occurrence polygons in regional RSA, associated with entire GEA; one overlaps with HSA. Modeled habitat present in HSA for San Joaquin Valley Subsection.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT(CH)/-	<p>Found in vernal pools, small clear-water sandstone depression pools, and grassy swales within annual grasslands throughout the central valley and central and south coast ranges.</p> <p>Physical or biological features of critical habitat include topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in continuous, or intermittently, flowing surface water connecting depressional features with underlying restrictive soil layers that become inundated by winter rains and continuously hold water for a minimum of 18 days; sources of food (e.g., single-celled bacteria and algae) in the pools; and structure in the pools consisting of organic and inorganic materials (e.g., living and dead plants, rocks) that provide shelter.</p>	182 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for San Joaquin Valley Subsection.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE(CH)/-	<p>Found in large vernal pools underlain by hardpan or in sandstone depressions; water in the vernal pools tends to have very low alkalinity and conductivity.</p> <p>Physical or biological features of critical habitat include topographic features characterized by mounds and swales and depressions within a matrix of surrounding uplands that result in continuous, or intermittently, flowing surface water connecting depressional features with underlying restrictive soil layers that become inundated by winter rains and continuously hold water for a minimum of 18 days; sources of food (e.g., single-celled bacteria and algae) in the pools; and structure in the pools consisting of organic and inorganic materials (e.g., living and dead plants, rocks) that provide shelter.</p>	47 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/-	Streamside and oak savannah habitats throughout the Central Valley. Host plant is the elderberry shrub for larval development and adult forage. Stems measuring greater than 1 inch diameter are considered suitable habitat. Species always found close to host plant. Larvae may remain in stems for as long as 2 years.	Five CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Fish			
Pacific lamprey <i>Entosphenus tridentatus</i>	–/SSC	In California, occurs along the coast and in coastal and estuarine streams from Los Angeles and Del Norte Counties and the rivers in the Central Valley. Upstream range limited by impassable barriers such as dams on major Central Valley rivers. Requires cold, clear water for spawning and incubation.	No CNDDDB occurrences in regional RSA but known to occur in accessible reaches below dams in the Coyote Creek, Guadalupe River, Pajaro River, and San Joaquin River watersheds in the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections. ³ Modeled habitat present in HSA for all subsections.
Steelhead – Central California Coast and South-Central California Coast DPSs <i>Oncorhynchus mykiss</i>	FT(CH)/–	Cold, clear water with clean gravel of appropriate size for spawning. Most spawning occurs in headwater streams. Steelhead migrate to the ocean to feed and grow until sexually mature. Physical or biological features of critical habitat include migration corridors to and from spawning areas that are free of barriers and maintain proper flow and water quality; freshwater spawning and rearing areas of high water quality and suitable substrate and forage; and estuarine and near-shore rearing areas of suitable water quality and forage.	Modeled habitat present in HSA for Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections. Designated critical habitat present in Morgan Hill and Gilroy and Pacheco Pass Subsections.
Chinook salmon – Central Valley Fall-/Late Fall-Run ESU ⁴ <i>Oncorhynchus tshawytscha</i>	EFH/SSC	Central Valley rivers and tributaries below impassable barriers. Adults enter rivers from San Francisco Estuary and move quickly to spawning grounds of cold, clear water with large gravel or cobble substrate. Peak spawning typically occurs October to November, but can continue through December and into January. Freshwater EFH for the Pacific salmon fishery (including chinook salmon) consists of four major components, 1) spawning and incubation; 2) juvenile rearing; 3) juvenile migration corridors; and 4) adult migration corridors and holding habitat.	San Joaquin River and its tributaries below impassable barriers. Designated freshwater EFH and modeled habitat present in Coyote Creek, Los Gatos Creek, and the Guadalupe River in the San Jose Diridon Station Approach, Monterey Corridor, and Morgan Hill and Gilroy Subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Amphibians			
California tiger salamander <i>Ambystoma californiense</i>	FT(CH)/ST	Annual grasslands and grassy understory of valley-foothill hardwood habitats (i.e., oak-savannah) with mammal burrows or other underground refugia. Requires vernal pools, small ponds, or lakes for breeding and mammal burrows or other underground refuges for cover during the dry season. Physical or biological features of critical habitat include: standing bodies of fresh water that become inundated during winter rains and typically hold water for a minimum of 12 weeks; upland habitat that contains small mammal burrows or other underground refugia; and upland dispersal habitat that allows for movement between occupied breeding sites.	261 CNDDDB specific extant occurrence polygons in regional RSA; six overlap with HSA in Santa Clara Valley. Modeled habitat present in HSA for all subsections. Designated critical habitat present in Morgan Hill and Gilroy Subsection. Lions Peak Unit (Bay Area Geographic Region Units 10a and 10b) overlaps portion of PG&E Spring to Llagas and Green Valley to Llagas 115-kV power lines; San Felipe Unit (Bay Area Geographic Region Unit 12) overlaps with Tunnel 1.
California red-legged frog <i>Rana draytonii</i>	FT(CH)/SSC	Pools in marshes, streams, ponds, with emergent vegetation, and typically without predatory fish. In areas without year-round water or in colder temperatures, frogs require adequate hibernacula, such as small mammal burrows or moist leaf litter. Physical or biological features of critical habitat include standing bodies of fresh water that typically become inundated during winter rains and hold water for a minimum of 20 weeks; freshwater ponds and streams that may not hold water long enough to support the species' aquatic life cycle but that provide for shelter, foraging, predator avoidance, and aquatic dispersal of juveniles and adults; and upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of 1 mile.	229 CNDDDB specific extant occurrence polygons in regional RSA; five overlap with HSA: one at Ogier Ponds near Coyote Creek, one in Pacheco Creek near Casa de Fruta, two intermittent streams near Pacheco Pass, one at large pond northwest of San Luis Reservoir. Modeled habitat present in HSA for Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections. Designated critical habitat present in Morgan Hill and Gilroy and Pacheco Pass Subsections. Wilson Peak unit (Unit STC-2) overlaps with HSA at Tunnel 1 in Morgan Hill and Gilroy Subsection and between Casa de Fruta and San Luis Reservoir in Pacheco Pass Subsection.
Foothill yellow-legged frog <i>Rana boylei</i>	-/SCT;SSC	Foothills of the Sierra Nevada and Coast Range. Occurs in rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Cobble-sized substrate required for egg laying.	33 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Western spadefoot <i>Spea (=Scaphiopus) hammondi</i>	-/SSC	Open areas with sandy or gravelly soils in a variety of habitats within central valley, foothills, and south coast ranges. Breeds in vernal pools and other seasonal pools or swales.	48 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Reptiles			
Western pond turtle <i>Emys</i> (= <i>Clemmys</i> <i>Actinemys</i>) <i>marmorata</i>	–/SSC	Inhabits ponds, marshes, rivers, streams, and irrigation ditches throughout the valley, foothills, and coast ranges of California. Needs basking sites such as partially submerged logs or rocks, and suitable upland habit (sandy banks or grassy open fields) for egg laying. Primarily in fresh water, may also enter brackish, or rarely saltwater.	134 CNDDDB specific extant occurrence polygons in regional RSA; four overlap with HSA. Modeled habitat present in HSA for all subsections.
Blunt-nosed leopard lizard <i>Gambelia sila</i>	FE/SE;FP	Resident of sparsely vegetated grasslands, alkali flats, and washes within the San Joaquin valley. Prefers flat areas with open space for running, avoiding densely vegetated areas. Seek cover in mammal burrows, under shrubs or structures such as fence posts; do not excavate their own burrows. Semiarid grasslands, alkali flats, and washes.	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA at eastern end of Pacheco Pass Subsection.
San Joaquin coachwhip <i>Masticophis flagellum</i> <i>ruddocki</i>	–/SSC	Open, dry, treeless areas, including grassland and saltbush scrub in western San Joaquin Valley. Takes refuge in rodent burrows, under shaded vegetation, and under surface objects.	19 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Northern California legless lizard <i>Anniella pulchra</i>	–/SSC	Semi-stabilized sand dunes, areas with sandy soil, and high moisture content, vegetated with oak or pine-oak woodland, chaparral; also wooded stream edges, and occasionally desert-scrub. Dunes with bush lupine and mock heather often indicate suitable conditions. Often found in leaf litter, under rocks, logs, and driftwood.	No known occurrences in regional RSA. Modeled habitat present in HSA for Morgan Hill and Gilroy and Pacheco Pass Subsections.
Coast (= Blainville's) horned lizard <i>Phrynosoma blainvillii</i>	–/SSC	Sandy or loose soils within grasslands, brushlands, woodlands, and open coniferous forest. Dietary specialists dependent on ants, as well as beetles and other seasonally abundant insects. Forage on the ground in open areas, usually between shrubs and often near an ant nest. Utilize small mammal burrows or burrow under surface objects during periods of extended inactivity or hibernation.	15 CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy and Pacheco Pass Subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Giant garter snake <i>Thamnophis gigas</i>	FT/ST	Found in freshwater marshes and low-gradient streams. Prefers habitat with dense emergent vegetation, deep and shallow pools of water (which persist throughout the seasonal cycle of activity), open areas along water margins, and upland habitat with access to structures suitable for hibernation and escape from flooding. Has adapted to drainage canals and irrigation ditches within agricultural areas.	28 CNDDDB specific extant occurrence polygons in regional RSA; two overlap with HSA at GEA (CNDDDB occurrences 23 and 161). Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.
Birds			
Short-eared owl <i>Asio flammeus</i>	-/SSC	Year-round resident in California. Nests on ground within coastal and inland prairies, grasslands, meadows, marshes, and farmlands with abundant rodent populations.	No known occurrences in regional RSA. Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.
Grasshopper sparrow <i>Ammodramus savannarum</i>	-/SSC	Summer resident in California from March to September. Occurs in short- to middle-height, moderately open grasslands with scattered shrubs.	No known CNDDDB occurrences in regional RSA, but multiple reports in eBird. ⁴ Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.
Mountain plover <i>Charadrius montanus</i>	-/SSC	Winter visitor to California range. Roost and forage in short grasslands, freshly plowed fields, and bare ground with flat topography. Prefers fallow, grazed, or burned areas and alkali flats with burrowing rodents.	Five CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.
Western snowy plover (interior population) <i>Charadrius alexandrinus nivosus</i>	- (interior population)/SSC	Year-round resident in California. Nests at inland lakes throughout northeastern, central, and southern California, including Mono Lake and Salton Sea. Feeds primarily on terrestrial and aquatic invertebrates.	Two CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA.
Western burrowing owl <i>Athene cunicularia</i>	-/SSC	Year-round resident in lowlands throughout much of California. Migrants from other parts of western North America may augment resident populations in winter. Found in open, dry, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Uses small mammal burrows for nesting and winter refuge. May also use rock piles and culverts as roost sites	94 CNDDDB specific extant occurrence polygons in regional RSA; four overlap with HSA. Modeled habitat present in HSA for all subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Golden eagle <i>Aquila chrysaetos</i>	-/FP	Permanent resident and migrant throughout California range. Found in mountains and foothills. Nests on cliff edges or large trees in open areas. Needs open terrain for hunting: grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats.	Five CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for all subsections.
Bald eagle <i>Haliaeetus leucocephalus</i>	-/SE;FP	Mainly found in mountainous habitats near reservoirs, lakes, and rivers and builds nests in the upper canopy of large coniferous trees. Most nest within 1 mile of water.	Five CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA; San Luis Reservoir nest (CNDDDB occurrence 365) 2.9 miles west of project footprint at Tunnel 2 east portal. Modeled habitat present in HSA for Morgan Hill and Gilroy and Pacheco Pass Subsections.
American peregrine falcon <i>Falco peregrinus anatum</i>	-/FP	Found year-round within California range in a variety of habitats, most with cliffs for nesting and open areas for foraging. Also uses large cities and nests on buildings.	Four CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA. Modeled habitat present in HSA for all subsections.
Northern harrier <i>Circus cyaneus</i>	-/SSC	Occurs year-round within breeding range in California and may potentially winter in areas statewide. Breeds and forages in variety of open (treeless) habitats such as marshes, meadows, pastures, prairies, weedy borders of lakes, rivers, and streams, grasslands, some croplands, sagebrush flats, and desert sinks. Constructs nests on ground in open field or meadow in shrubby vegetation, usually near wet areas.	10 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA. Modeled habitat present in HSA for all subsections.
White-tailed kite <i>Elanus leucurus</i>	-/FP	Found year-round within California range in grasslands, agricultural fields, oak woodlands, savannah, and riparian habitats in rural and urban areas. They are often found along tree-lined river valleys with adjacent open areas. Nest in trees.	Five CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for all subsections.
Swainson's hawk <i>Buteo swainsoni</i>	-/ST	South American migrant that breeds in Central Valley of California. Found in open country such as grassland, shrubland, and agricultural areas. Nests in riparian areas and oak woodlands as well as isolated and roadside trees close to grassland or agricultural foraging habitat.	193 CNDDDB specific extant occurrence polygons in regional RSA; 8 overlap with HSA. Modeled habitat present in HSA for Monterey Corridor, Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
California condor <i>Gymnogyps californianus</i>	FE/SE;FP	Permanent resident of the semi-arid, rugged mountain ranges surrounding southern San Joaquin Valley. Nests in caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs.	No known occurrences in regional RSA; HSA study area within flying distance of Pinnacles Nat'l Park. Habitat not modeled for this species but Diablo Range could be used for foraging if the species' range expands.
Loggerhead shrike <i>Lanius ludovicianus</i>	-/SSC	Year-round throughout most of California range; some breeding populations may be migratory. Wintering individuals augment resident populations and occupy areas where none breed. Breeds and forages in open habitats interspersed with shrubs and small trees, including disturbed habitats. Nests placed in trees.	Three CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for all subsections.
Purple martin <i>Progne subis</i>	-/SSC	Summer resident and migrant in California. Uses wide variety of nesting substrates (e.g., tree cavities, bridges, utility poles, lava tubes, buildings); however, sites must have low canopy cover at nest height. Most tree nest sites located in upper slopes of hilly and mountainous terrain. Often found near large wetlands and other water bodies. Starlings are competitors and must be present in low densities or absent.	One CNDDDB specific extant occurrence polygons in regional RSA does not overlap with HSA. Modeled habitat present in HSA for Pacheco Pass Subsection.
Olive-sided flycatcher <i>Contopus cooperi</i>	-/SSC	Summer resident and migrant in California primarily from mid-April through early October. Breeds in montane and northern coniferous forest, at edges and openings. Winters at forest edges and clearings with tall trees or snags.	No known occurrences in regional RSA. Modeled habitat present in HSA for Pacheco Pass Subsection.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE/SE	Summers within California range. Typically inhabits structurally diverse dense riparian woodlands/shrubs along water courses or near open water. Nests in shrub or low tree, usually about 3 feet above ground, in horizontal or down-sloping twig fork, typically near edge of thicket. Obligate riparian species during breeding season. Brown-headed cowbird severe threat.	Four CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA near Gilroy (CNDDDB occurrence 198). Modeled habitat present in HSA for all subsections. Modeled habitat present in HSA for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.
Yellow warbler <i>Setophaga petechia</i>	-/SSC	Riparian vegetation in close proximity to water along streams and in wet meadows.	No known CNDDDB occurrences in regional RSA, but multiple reports in eBird, ⁴ several of which are in the HSA for the San Jose Diridon Station approach, Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections. Modeled habitat is present in these subsections, as well.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Yellow-breasted chat <i>Icteria virens</i>	–/SSC	Summer resident and migrant in California, primarily from late March to late September. Nests locally in coastal mountains and Sierra Nevada foothills, east of the Cascades in northern California, along the Colorado river, and very locally inland in southern California. Occurs in early successional riparian habitat with a well-developed shrub layer and open canopy.	No known CNDDDB occurrences in regional RSA, but multiple reports in eBird, ⁴ several of which are in the HSA for the Morgan Hill and Gilroy Subsection. Modeled habitat present in HSA for the San Jose Diridon Station approach, Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections.
Tricolored blackbird <i>Agelaius tricolor</i>	–/SCE;SSC	Almost endemic to California; permanent resident and migrant. Highly colonial species, most numerous in Central Valley and vicinity. Nests next to open water typically in freshwater marsh habitat where there is extensive emergent or riparian vegetation. Increasing percentage of breeding colonies has been reported in grain fields. Forages in grasslands, wetland habitats, and some agricultural areas.	129 CNDDDB specific extant occurrence polygons in regional RSA; six overlap with HSA. Modeled habitat present in HSA for all subsections.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	–/SSC	Mainly summer resident and migrant in California range; small numbers winter. Breeds in loose colonies in freshwater wetlands (e.g., marshes) with tall dense emergent vegetation adjacent to deep water, and along borders of lakes or ponds. Places its nest over water, attached to cattails and reeds. Forages in the wetlands and in surrounding grasslands and croplands. In winter large flocks forage in agricultural areas.	One CNDDDB specific extant occurrence polygons in regional RSA does not overlap with HSA. Modeled habitat present in HSA for San Joaquin Valley Subsection.
Greater sandhill crane <i>Antigone canadensis tabida</i>	–/ST;FP	Migratory resident found in grassland, moist croplands, shallow lacustrine, and fresh emergent wetland habitats in the Sacramento and San Joaquin Valley. Breeding occurs in wetland and meadow habitat in Lassen, Modoc, Plumas, Shasta, Sierra, and Siskiyou counties.	No CNDDDB occurrences in regional RSA, but multiple species-level reports in eBird, ⁴ including several locations in the HSA for the San Joaquin Valley Subsection. It is likely that at least some of the observed individuals belonged to the “greater” subspecies. Modeled habitat present in San Joaquin Valley Subsection.
Lesser sandhill crane <i>Antigone canadensis canadensis</i>	–/SSC	Winters and migrates through Central Valley and Imperial Valley, with main wintering concentrations in Merced County and Sacramento-San Joaquin River Delta. Forages on waste grains and other seeds in agricultural fields, pastures, and grassland. Does not breed in California.	No CNDDDB occurrences in regional RSA, but multiple species-level reports in eBird, ⁴ including several locations in the HSA for the San Joaquin Valley Subsection. It is likely that most of the observed individuals belonged to the “lesser” subspecies. Modeled habitat present in San Joaquin Valley Subsection.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Mammals			
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/ST	Occurs in the San Joaquin Valley in annual grassland or grassy open stages with scattered shrubby vegetation; requires loose-textured sandy soils for burrowing; requires suitable prey base of small rodents, including kangaroo rats or California ground squirrels.	72 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA. Modeled habitat present in HSA for Morgan Hill and Gilroy, Pacheco Pass, and San Joaquin Valley Subsections.
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	FE/SE	Restricted to native grasslands in Fresno County within the San Joaquin Valley; nearly level, light, friable soils in chenopod scrub and grassland communities.	No known occurrences in regional RSA. Modeled habitat present in HSA for San Joaquin Valley Subsection.
Mountain lion <i>Puma concolor</i>	-/SCT ⁵	Occurs throughout most of California in grasslands, woodlands, and a variety of other habitats. Large ungulates, especially deer, are the primary prey; however, they are opportunistic predators feeding on a wide variety of other large and smaller prey.	The species is known to occur in the HSA. The Southern California/Central Coast ESU includes all areas in the HSA to the west of the Central Valley (generally those areas west of I-5).
American badger <i>Taxidea taxus</i>	-/SSC	Occurs throughout California in grasslands, savannas, and mountain meadows near timberline; requires friable soils and relatively open, uncultivated ground; requires suitable prey base of burrowing rodents such as gophers, ground squirrels, marmots, and kangaroo rats.	No known occurrences in regional RSA. Modeled habitat present in HSA for Pacheco Pass and San Joaquin Valley Subsections.
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	-/SSC	Occurs in wooded habitats in San Francisco south through Santa Clara County.	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for San Jose Diridon Station Approach, Monterey Corridor, Morgan Hill and Gilroy, and Pacheco Pass Subsections.
Ringtail <i>Bassariscus astutus</i>	-/FP	Occurs throughout California in dry, rocky, or mountainous areas with scattered oaks and conifers as well as riparian communities; requires hollow trees, logs, cavities in rocky areas, or other recesses for cover and breeding.	No known occurrences in regional RSA but species difficult to detect and therefore poorly represented in CNDDDB.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-/SSC	Found in a variety of habitats throughout California, most commonly in mesic sites, including coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Typically found in areas within caves and cave-like roosting habitat, such as mines, buildings, bridges and basal hollows in big old-growth trees.	15 CNDDDB specific extant occurrence polygons in regional RSA; one overlaps with HSA. Modeled habitat present in HSA for all subsections.

Common Name Scientific Name	Status ¹ Federal/State	Habitat	Occurrence in Regional RSA
Western mastiff bat <i>Eumops perotis californicus</i>	-/SSC	Roosts in crevices in cliff faces, high buildings, and tunnels; forages in arid, semi-arid habitat-coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral.	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for all subsections.
Western red bat <i>Lasiurus blossevillii</i>	-/SSC	Occurs throughout California; roosts primarily in trees, typically adjacent to open fields or streams, which are protected above and open below for foraging; prefers habitat edges and mosaics with trees.	Six CNDDDB specific extant occurrence polygons in regional RSA; none overlaps with HSA. Modeled habitat present in HSA for all subsections.

CNDDDB = California Natural Diversity Database

DPS = distinct population segment

ESU = evolutionarily significant unit

GEA = Grasslands Ecological Area

HSA = habitat study area

I- = Interstate

RSA = regional study area

¹ Status:

Federal codes: - = no status designation; FE = listed as endangered under FESA; FT = listed as threatened under FESA; (CH) = designated critical habitat; EFH = designated essential fish habitat; C = candidate for listing
 State codes: - = no status designation; SE = listed as endangered under CESA; ST = Listed as threatened under CESA; SCE = State candidate for listing as endangered under CESA; SCT = State candidate for listing as threatened under CESA; SSC = CDFW Species of Special Concern; FP = California Fully Protected Species

² Naturalist. 2019. *Bombus crotchii occurrence records from Santa Clara and San Joaquin Valleys*. Available: <https://www.inaturalist.org>. Accessed: October 8, 2019.

³ Goodman, D.H. and S.B. Reid. 2012. *Pacific Lamprey (Entosphenus tridentatus) Assessment and Template for Conservation Measures in California*. U.S. Fish and Wildlife Service, Arcata, California. 117 pp.

⁴ Sullivan, B.L., C.L. Wood, M.J. Iliff, R.E. Bonney, D. Fink, and S. Kelling. 2009. eBird: a citizen-based bird observation network in the biological sciences. *Biological Conservation* 142: 2282–2292.

⁵ The candidate status applies to the Southern California/Central Coast Evolutionarily Significant Unit.