

2.19 Animal Species

2.19.1 Regulatory Setting

Many State and federal laws regulate impacts to wildlife. The United States Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or California Endangered Species Acts (FESA and CESA, respectively). The proposed Project is not expected to impact any animal species listed or proposed for listing as threatened or endangered, as discussed earlier in the introduction to Chapter 2. All other special-status animal species are discussed here, including CDFW fully protected species and Species of Special Concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600–1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

2.19.2 Affected Environment

The information in this section is based on the *Natural Environment Study (Minimal Impacts)* (NES[MI]) (April 2023) prepared for the proposed Project.

2.19.2.1 Literature Review, Records Search, and Field Visits

A literature review and records search were conducted to identify the presence or potential occurrence of sensitive or special-status animal species within or in the vicinity of the Biological Study Area (BSA). A species list was obtained from the USFWS Information Planning and Conservation System in October 2022 and is provided in Chapter 4. The results of the literature review indicated 82 special-status animal species as potentially occurring in the BSA. The following 61 special-status

animal species that are not federally and/or State-listed as endangered or threatened were identified in the literature and records searches as potentially occurring in or near the BSA:

- Crotch's bumble bee (*Bombus crotchii*)
- Sandy beach tiger beetle (*Cicindela hirticollis gravida*)
- Western beach tiger beetle (*Cicindela latesignata latesignata*)
- Senile tiger beetle (*Cicindela senilis frosti*)
- Globose dune beetle (*Coelus globosus*)
- Monarch – California overwintering population (*Danaus plexippus*)
- San Gabriel chestnut snail (*Glyptostoma gabrielse*)
- Western ridged mussel (*Gonidea angulate*)
- Western tidal-flat tiger beetle (*Habroscelimorpha gabbii*)
- Wandering (=saltmarsh) skipper (*Panoquina errans*)
- Dorothy's El Segundo dune weevil (*Trigonoscuta dorothea dorothea*)
- Mimic tryonia (=California brackishwater snail) (*Tryonia imitator*)
- Arroyo chub (*Gila orcuttii*)
- Santa Ana speckled dace (*Rhinichthys osculus* ssp.)
- Western spadefoot (*Spea hammondi*)
- Coast Range newt (*Taricha torosa*)
- Southern California legless lizard (*Anniella stebbinsi*)
- California glossy snake (*Arizona elegans occidentalis*)
- Orangethroat whiptail (*Aspidoscelis hyperythra*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Red-diamond rattlesnake (*Crotalus ruber*)
- Western pond turtle (*Emys marmorata* [*Actinemys*] *marmorata*)
- Coast horned lizard (*Phrynosoma blainvillii* [*coronatum*])
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- Two-striped garter snake (*Thamnophis hammondi*)
- Cooper's hawk (*Accipiter cooperii*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Grasshopper sparrow (*Ammodramus savannarum*)
- Golden eagle (*Aquila chrysaetos*)
- Great blue heron (*Ardea Herodias*)
- Long-eared owl (*Asio otus*)
- Burrowing owl (*Athene cunicularia*)

- Ferruginous hawk (*Buteo regalis*)
- Swainson's hawk (*Buteo swainsoni*)
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)
- Yellow rail (*Coturnicops noveboracensis*)
- White-tailed kite (*Elanus leucurus*)
- California horned lark (*Eremophila alpestris actia*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Yellow-breasted chat (*Icteria virens*)
- Osprey (*Pandion haliaetus*)
- California brown pelican (*Pelecanus occidentalis californicus*)
- Black skimmer (*Riparia riparia*)
- Yellow warbler (*Setophagia petechial*)
- Pallid bat (*Antrozous pallidus*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Mexican long-tongued bat (*Choeronycteris mexicana*)
- Western mastiff bat (*Eumops perotis californicus*)
- Silver-haired bat (*Lasionycteris noctivagans*)
- Hoary bat (*Lasiurus cinereus*)
- Western yellow bat (*Lasiurus xanthinus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- South coast marsh vole (*Microtus californicus stephensi*)
- Yuma myotis (*Myotis yumanensis*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*)
- Big free-tailed bat (*Nyctinomops macrotis*)
- Southern grasshopper mouse (*Onychomys torridus ramona*)
- Southern California saltmarsh shrew (*Sorex ornatus salicornicus*)
- American badger (*Taxidea taxus*)

Reconnaissance-level field surveys were conducted on July 26 and 27 and August 1, 2022, to characterize the general biological resources and to ascertain the presence or absence of special-status animal species and the likelihood of their occurrence in and near the BSA.

A habitat suitability assessment for bats was conducted on July 26 and 27 and August 1, 2022, to ascertain the potential for bat foraging and roosting activity within the BSA. Potential foraging habitat was assessed throughout the BSA on the basis of vegetation composition, adjacent habitat, and accessibility. Potential roosting sites were identified through the examination of bridges and culvert structures for suitable crevices and roosting habitat. Large trees suitable for foliage-roosting species were noted, but roosting activity at these locations could not be confirmed due to the nature of this roosting behavior.

One special-status animal species, great blue heron, was observed or otherwise detected in the BSA during the field surveys. Twenty-nine other special-status animal species have the potential to occur in the BSA and are discussed below.

Wildlife species identified in the BSA are characteristic of those found in developed areas in Southern California and include 2 reptile species, 27 bird species, and 3 mammal species (a complete list of species observed is provided in Appendix D of the NES[MI]).

2.19.2.2 Monarch Butterfly

Monarch butterfly is a federal candidate species and CDFW special animal. Monarch butterfly is a migratory species of butterfly that typically overwinters along the west coast of the United States in groves of blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*), all of which act as roost trees. Adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration, which they feed on throughout their migration routes and breeding grounds (spring through fall). Monarch butterflies also need milkweed for both egg-laying and larval feeding among nectar resources. Overwintering sites are protected as sensitive habitat areas by the CDFW.

Monarch butterfly was not observed in the BSA during the 2022 field surveys. Marginally suitable foraging habitat that includes limited nectar sources for monarch butterfly occurs in the freshwater marsh that occurs within the BSA. Suitable roosting and overwintering habitat is located within the trees present within the landscaped areas dominated by ornamentals that occurs throughout the BSA. There are no documented occurrences of monarch butterfly roosting sites near the BSA; however, there are several roosting site occurrences along the Pacific Coast from Dana Point to Long Beach, with the closest being approximately 7 miles southwest of the BSA.

Milkweed species required for egg-laying and larval feeding are not present within the BSA.

2.19.2.3 Western Ridged Mussel

Western ridged mussel is a California Special Animal. Western ridged mussel inhabits creeks and rivers and less often lakes.

No focused surveys were conducted for western ridged mussel; therefore, it is unknown whether this species currently occurs in the BSA. However, the species is considered extirpated from central and southern California. The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There is one documented occurrence of the presence of this species within the vicinity of the BSA but further than three miles from the BSA. The western ridged mussel has the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.4 Arroyo Chub and Santa Ana Speckled Dace

Arroyo chub and Santa Ana speckled dace are both California Species of Special Concern. These two species inhabit similar habitats generally limited to perennial streams. Arroyo chub also inhabits intermittent streams with permanent pools and slow-water sections of streams with mud or sand substrates and spawns in pools. Santa Ana speckled dace prefers riffles in small streams and shore areas with abundant gravel and rock.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There are three documented observations of the presence of arroyo chub and one documented observation of Santa Ana speckled dace in the vicinity of, but farther than 3 miles from, the BSA. Arroyo chub and Santa Ana speckled dace have the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.5 Arroyo Toad

Arroyo toad is a California Species of Special Concern. It is also a Covered Species in the Central/Coastal Orange County Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). Arroyo toad inhabits washes and arroyos with open water, sand or gravel beds, and pools with sparse overstory vegetation for breeding.

No focused surveys were conducted for arroyo toad; therefore, it is unknown whether this species currently occurs in the BSA. The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There is one documented occurrence of the presence of this species in the vicinity of, but farther than 3 miles from, the BSA. The arroyo toad has the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.6 Western Spadefoot

Western spadefoot is a California Species of Special Concern. It is also a Covered Species in the Central/Coastal Orange County NCCP/HCP. Western spadefoot inhabits grasslands and occasionally hardwood woodlands. It is largely terrestrial but requires rain pools or other ponded water persisting at least 3 weeks for breeding. The species burrows in loose soils during the dry season.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There are 55 documented occurrences of this species within the vicinity of the BSA, of which 2 are within 3 miles of the BSA and none are within the BSA. The western spadefoot has the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.7 Coastal Whiptail

Coastal whiptail is a California Species of Special Concern. Coastal whiptail inhabits a wide variety of habitats, including coastal sage scrub, sparse grassland, and riparian woodland.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of riverine areas. There are 14 documented occurrences of this species within the vicinity of the BSA but farther than 3 miles from the BSA. The coastal whiptail has the potential to occur in riverine areas and adjacent undeveloped habitats.

2.19.2.8 Western Pond Turtle

Western pond turtle (*Emys marmorata*) is a California Species of Special Concern. It is the only remaining native species of freshwater turtle in California. Western pond turtle inhabits ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation and either rocky or muddy bottoms in woodland, forest, and grassland habitats.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There are 35 documented reports of the presence of this species within the vicinity of the BSA, of which 4 are within 3 miles of the BSA and none are within the BSA. The western pond turtle has the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.9 Coast Horned Lizard

Coast horned lizard is a California Species of Special Concern. It is also a Covered Species in the Central/Coastal Orange County NCCP/HCP. Coast horned lizard inhabits a wide variety of habitats, including coastal sage scrub, sparse grassland, and riparian woodland.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of bare ground and riverine areas. There are 41 documented occurrences of this species within the vicinity of the BSA, of which 1 is within 3 miles of the BSA and 1 is within the BSA. The coast horned lizard has the potential to occur in bare ground areas, riverine areas, and adjacent undeveloped habitats.

2.19.2.10 Coast Patch-Nosed Snake

Coast patch-nosed snake is a California Species of Special Concern. Coast patch-nosed snake inhabits coastal chaparral, washes, sandy flats, and rocky areas.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of riverine areas. There are four documented occurrences of this species within the vicinity of the BSA but farther than 3 miles from the BSA. The coast patch-nosed snake has the potential to occur in riverine areas.

2.19.2.11 Two-Striped Garter Snake

Two-striped garter snake is a California Species of Special Concern. Two-striped garter snake inhabits areas in or near permanent fresh water.

The potential for this species was determined based on an evaluation of the habitat present in the BSA, which identified that suitable habitat is present in the form of perennial waterways. There are five documented occurrences of this species within the vicinity of the BSA but farther than 3 miles from the BSA. The two-striped garter

snake has the potential to occur in Coyote Creek, La Cañada Verde Creek, and Peters Canyon Wash.

2.19.2.12 Nesting Migratory Birds

Based on literature review, records search, and field surveys, suitable habitat is present within the BSA for the following 10 special-status avian species that are not federally- and/or State-listed as endangered or threatened. These species are also protected under the MBTA (16 United States Code [USC] Sections 703–711) and under Sections 3503 and 3800 of the California Fish and Game Code.

- Cooper’s hawk
- Grasshopper sparrow
- Golden eagle
- Great blue heron
- Burrowing owl
- Ferruginous hawk
- Yellow rail
- White-tailed kite
- California horned lark
- Yellow-breasted chat

Suitable foraging and nesting habitat are present within the BSA for Cooper’s hawk and great blue heron. While suitable habitat is present within the BSA for the great blue heron, no nesting colony habitat exists within the BSA. A single great blue heron was observed within the BSA and may be observed in Peters Canyon Wash and other perennial waterways; however, only individuals are expected, not a nesting colony. None of the other special-status bird species that have potential to occur were observed during biological resources surveys conducted for the proposed Project.

Marginal foraging habitat is present in the BSA for the grasshopper sparrow and golden eagle in ruderal areas and yellow rail and yellow-breasted chat in freshwater marsh; however, the likelihood of them occurring within the BSA is extremely low.

Marginal foraging and nesting habitat for burrowing owl, white-tailed kite, and California horned lark is present in the BSA; however, the likelihood of them occurring within the BSA is extremely low.

Ferruginous hawks are not known to breed in California; however, this species may occur foraging in the winter due to marginally suitable habitat within the BSA.

Although suitable habitat may be present for these special-status bird species within the BSA, the highly developed nature of the BSA generally precludes use by these species.

Migratory birds are protected under the MBTA. In addition, Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of migratory birds, their nests, or their eggs.

2.19.2.13 Special-Status Bridge/Culvert and Crevice-Dwelling Animal Species

Based on literature review, records search, and field surveys, suitable roosting habitat is present within the BSA for the following special-status bridge/culvert and crevice-dwelling animal species that are not federally and/or State-listed as endangered or threatened:

- Pallid bat (*Antrozous pallidus*)
- Mexican long-tongued bat
- Western mastiff bat
- Silver-haired bat
- Hoary bat
- Western yellow bat
- Yuma myotis
- Pocketed free-tailed bat
- Big free-tailed bat

The BSA was surveyed for the potential presence of bats. Bat roosting was not confirmed within the BSA, but the number of suitable overpasses and culverts provides ample opportunity for roosting. There are also Mexican fan palm (*Washingtonia robusta*), pine (*Pinus* sp.), and other trees present within the BSA, which provide suitable bat roosting habitat. The probability of roosting is moderate to high within the BSA.

A maternity colony of Yuma myotis and a small population of Mexican free-tailed bats (*Tadarida brasiliensis*) have been documented in the bat panels installed on the State Route (SR) 91 crossing over the Santa Ana River, which is approximately 3.6 miles east of the BSA. Yuma myotis is a nonlisted special-status animal species and Mexican free-tailed bat is a common animal species. Both species have potential to roost within the BSA, and given the proximity to known roosts, these two species are

the most likely bat species to roost within the BSA. Additional special-status bat species that have potential to roost within the BSA include those species identified as having habitat present in Table 2.19.1, below. This includes pallid bat, Mexican long-tongued bat, western mastiff bat, silver-haired bat, hoary bat, western yellow bat, pocketed free-tailed bat, and big free-tailed bat, as well as nonspecial-status bat species.

2.19.3 Environmental Consequences

The proposed Project has been determined to have no effect on any species federally or State-listed as endangered or threatened that has been identified as potentially occurring within the vicinity of the proposed Project (refer to Table 2.19.1). Additionally, the Build Alternatives do not have any effect on nonlisted special-status animal species.

Table 2.19.1 Listed Animal Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA

Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
INVERTEBRATES					
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	US: FE CA: SA	Small, shallow (usually less than 12 inches deep), relatively clear but unpredictable vernal pools on coastal terraces. Pools must retain water for a minimum of 13 days for this species to reproduce (3–8 days for hatching and 10–20 days to reach reproductive maturity).	Seasonally following rains in late fall, winter, and spring	HA	Not expected to occur. No suitable habitat for this species is present in the BSA.
Quino checkerspot Euphydryas editha quino	US: FE CA: SA	Historically occupied open grassy sites from the vicinity of Los Angeles and Riverside south to northern Baja California, always in the vicinity of the larval food plants, California plantain (<i>Plantago erecta</i>) and purple owl's-clover (<i>Castilleja exserta</i>). In California, the species is now known from a few sites in San Diego and western Riverside counties.		HA	Not expected to occur. No suitable habitat for this species is present in the BSA. No food plant species are present within the BSA. Not found in coastal Orange County since the 1930s and believed to be extirpated.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	US: FE CA: SA	Warm-water vernal pools (i.e., large, deep pools that retain water into the warm season) with low to moderate dissolved solids, in annual grassland areas interspersed through chaparral or coastal sage scrub vegetation. Suitable habitat includes some artificially created or enhanced pools, such as some stock ponds that have vernal pool-like hydrology and vegetation.	Seasonally following rains; typically January–April	HA	Not expected to occur. No suitable habitat for this species is present in the BSA.
FISH					
Santa Ana sucker <i>Catostomus santaanae</i>	US: FT CA: SSC	The Santa Ana sucker's historical range includes the Los Angeles, San Gabriel, and Santa Ana River drainage systems in Southern California. An introduced population also occurs in the Santa Clara River drainage system in Southern California. Found in shallow, cool, running water.	Year-round	HP	Low potential to occur. There are six known occurrences within the vicinity of the BSA. Marginally suitable habitat for this species is present in the BSA.
Tidewater goby <i>Eucyclogobius newberryi</i>	US: FE CA: SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon (San Diego County) to the mouth of the Smith River (Del Norte County). Found in shallow lagoons and lower stream reaches.	Year-round	HA	Not expected to occur. While there is one known occurrence within the vicinity of the BSA, no suitable habitat for this species is present in the BSA.

Table 2.19.1 Listed Animal Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA

Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
Steelhead (Southern California Distinct Population Segment) <i>Oncorhynchus mykiss irideus</i>	US: FE CA: SSC	Occurs in cool-water streams; spawns in areas of gravelly substrate in riffles or pool tails. Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	Year-round	HP	Low potential to occur. There are three known occurrences within the vicinity of the BSA. Perennial waterways (Coyote Creek, La Canada Verde Creek/La Mirada Creek, and Peters Canyon Wash) within the BSA are within the historic range of the Southern California steelhead DPS. However, the current range of the species is uncertain within these waterways or deemed to be very rare. Marginally suitable habitat for this species is present in the BSA.
AMPHIBIANS					
Arroyo toad <i>Anaxyrus (Bufo) californicus</i>	US: FE CA: SSC	Washes and arroyos with open water; sand or gravel beds; for breeding, pools with sparse overstory vegetation. Coastal and a few desert streams from Santa Barbara County to Baja California.	March–July	HP	Low potential to occur. There is one known occurrence within the vicinity of the BSA. Marginally suitable habitat is present in the BSA.
REPTILES					
Green sea turtle <i>Chelonia mydas</i>	US: FT CA:-	Marine; completely herbivorous; needs adequate supply of seagrasses and algae.	Year-round	HA	Not expected to occur. There is one known occurrence within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
BIRDS					
Tricolored blackbird <i>Agelaius tricolor</i>	US: – CA: ST	Open country. Forages in grassland and cropland habitats. Nests in large groups near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, or tall herbs. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs.	Year-round	HP	Low potential to occur. There are eight known occurrences within the vicinity of the BSA. Although marginally suitable freshwater marsh habitat for this species is present in the BSA, it is limited to one location and is small in size.

Table 2.19.1 Listed Animal Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA

Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
Swainson's hawk <i>Buteo swainsoni</i> (nesting)	US: – CA: ST	Open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah in the Central Valley. Forages in adjacent grasslands, suitable grain or alfalfa fields, or livestock pastures.	Spring and fall (in migration)	HA	Not expected to occur. There are historical occurrences within the vicinity of the BSA. No suitable habitat for this species is currently present in the BSA. The species is generally not known to nest within Orange County or southern Los Angeles County.
Western snowy plover <i>Charadrius alexandrinus nivosus</i> (nesting)	US: FT (coastal population) CA: SSC	Sandy coastal beaches, lakes, alkaline playas. Scattered locations along coastal California and Channel Islands, inland at Salton Sea, and at various alkaline lakes.	Coast: Year-round Inland lakes: April–September	HA	Not expected to occur. There are eight known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i> (nesting)	US: FT CA: SE	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	June–September	HA	Not expected to occur. There are 11 known occurrences within the vicinity of the BSA. The species is not known to currently breed in the region. No suitable habitat for this species is present in the BSA.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	US: FE CA: SE NCCP: C	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern United States and possibly extreme northwestern Mexico. Winters in Central and South America. Below 6,000 ft in elevation.	May–September	HA	Not expected to occur. There are five known occurrences within the vicinity of the BSA. The species is an extremely rare breeder in the region. No suitable habitat for this species is present in the BSA.
California black rail <i>Laterallus jamaicensis coturniculus</i>	US: – CA: ST/CFP	Requires shallow water in salt marshes, freshwater marshes, wet meadows, or flooded grassy vegetation. Prefers areas of moist soil vegetated by fine-stemmed emergent plants, rushes, grasses, or sedges, with scattered small pools.	Year-round	HP	Low potential to occur. There are three known occurrences within the vicinity of the BSA. Although marginally suitable freshwater marsh habitat for this species is present in the BSA, it is limited to one location and is small in size.

Table 2.19.1 Listed Animal Species Potentially Occurring or Known to Occur in and in the Vicinity of the BSA

Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
Belding's savannah sparrow <i>Passerculus sandwichensis beldingi</i>	US: – CA: SE	Resident in salt marshes, with rare exception (e.g., Islas Todos Santos, Baja California), of the Pacific Coast from Santa Barbara County to Baja California.	Year-round	HA	Not expected to occur. There are nine known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
Coastal California gnatcatcher <i>Polioptila californica californica</i>	US: FT CA: SSC NCCP: C	Inhabits coastal sage scrub in low-lying foothills and valleys up to about 1,640 ft in elevation in cismontane southwestern California and Baja California.	Year-round	HA	Not expected to occur. There are 304 known occurrences within the vicinity of the BSA. No suitable habitat for the species is present within the BSA.
Light-footed (clapper) Ridgeway's rail <i>Rallus obsoletus levipes</i>	US: FE CA: SE/CFP	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	Year-round; vocalizes at night, dawn, and dusk	HA	Not expected to occur. There are five known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
Bank swallow <i>Riparia riparia</i> (nesting)	US: – CA: ST	Nesting habitat is vertical banks of fine-textured soils, most commonly along streams and rivers. In Southern California, fairly common spring and fall transient in interior; very uncommon spring transient and rare fall transient along coast. Casual in winter.	Variable year-round	HA	Not expected to occur. There are five known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
California least tern <i>Sternula antillarum browni</i> (nesting colony)	US: FE CA: SE/CFP	Nests along the coast from San Francisco Bay south to northern Baja California. Forages in shallow water. Colonial breeder on bare or sparsely vegetated, flat substrates, sand beaches, alkali flats, landfills, or paved areas.	April–October	HA	Not expected to occur. There are 15 known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.
Least Bell's vireo <i>Vireo bellii pusillus</i>	US: FE CA: SE NCCP: C	Riparian forests and willow thickets. The most critical structural component of least Bell's vireo habitat in California is a dense shrub layer 2 to 10 ft above ground.	April–September	HA	Not expected to occur. There are 79 known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.

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Species	Status	General Habitat Description	Activity Period	Habitat Present/Absent	Rationale
MAMMALS					
Pacific pocket mouse <i>Perognathus longimembris pacificus</i>	US: FE CA: SSC	Historically occupied open habitats on sandy soils along the coast from Los Angeles to the Mexican border.	April –September	HA	Not expected to occur. There are three known occurrences within the vicinity of the BSA. No suitable habitat for this species is present in the BSA.

Source: *Natural Environment Study (Minimal Impacts)* (April 2023).

¹ Months in parentheses are uncommon.

Status:

C = Covered under the Orange County Central-Coastal NCCP/HCP
CE = California Endangered
CFP = California Fully Protected Species
CNPS = California Native Plant Society
CSP = California Special Plant
CT = California Threatened
FC = Federal Candidate
FE = Federal Endangered
FP, FPE, FPT = Federal Proposed
FT = Federal Threatened

BSA = Biological Study Area
CNPS = California Native Plant Society
ft = foot/feet

CNPS California Rare Plant Ranking Designations:

1A = Plants presumed extinct in California
1B = Plants rare and endangered in California and throughout their range
2 = Plants rare, threatened, or endangered in California but more common elsewhere in their range
3 = Plants needing more information (a review list)
4 = Plants of limited distribution (a watch list)

HCP = Habitat Conservation Plan
NCCP = Natural Community Conservation Plan

Habitat Present/Absent:

HA = No habitat is present and no further work is needed, or habitat is absent or species was absent in the BSA at the time of the focused survey.
HP = Habitat is or may be present.

2.19.3.1 Temporary Impacts

Build Alternative (Alternative 2)

Monarch butterfly is not anticipated to occur within the landscaped habitat that would be temporarily removed by construction of Alternative 2. Up to 1.23 acres of temporary impacts to marginally suitable habitat, in the form of landscaped areas, are anticipated to occur with construction of Alternative 2. Indirect temporary effects to suitable monarch butterfly habitat through construction of Alternative 2 may include increased noise, vibration, dust, and lighting during construction activities. However, because those activities would be performed adjacent to highly traveled portions of Interstate (I) 5 and surface streets and the monarch butterfly already experiences noise, vibration, dust, and lighting, indirect impacts are expected to be minimal.

Activities associated with construction of Alternative 2 are not anticipated within suitable habitat for western ridged mussel, arroyo chub, Santa Ana speckled dace, arroyo toad, western spadefoot, western pond turtle, and two-striped garter snake. No modifications to suitable habitat are proposed, and no barriers to fish passage would be created by Alternative 2. Temporary indirect impacts during construction activities may include an increase or change in off-site runoff due to construction activities. However, because those activities would be performed adjacent to highly traveled portions of I-5 that already experience off-site runoff, indirect impacts are expected to be minimal. Implementation of Project Features PF-NAT-1 through PF-NAT-5 (defined in Section 2.16.3.1) would ensure that indirect impacts to suitable habitat would be minimal and measures NAT-1 and NAT-2 (defined in Section 2.16.4) would ensure that indirect impacts to suitable habitat for these species are avoided and minimized.

Alternative 2 is anticipated to temporarily impact suitable habitat for the coastal whiptail, coast horned lizard, and coast patch-nosed snake. In addition, these areas could be indirectly temporarily impacted by dust, changes in hydrology, erosion, siltation, increased runoff, and invasion by nonnative species introduction and spreading during construction of the Alternative 2. With implementation of Project Feature PL-1 as identified in Section 2.18.3 and Project Feature PF-IS-1, provided in Section 2.20.3.2, potential temporary impacts to these species during construction of Alternative 2 would not be adverse.

Construction of the Alternative 2 could also temporarily impact nesting birds protected under the MBTA and the California Fish and Game Code either directly as a result of the removal of trees occupied by nesting birds or disturbances to bridge

and crevice habitat, or indirectly as a result of disturbances near trees occupied by nesting birds. With implementation of Project Features PF-ANS-1 through PF-ANS-5, potential temporary impacts to nesting birds during construction of Alternative 2 would not be adverse.

Batroosting habitat is not subject to direct impacts from construction activities associated with Alternative 2, as construction activities would occur away from bridges that provide potentially suitable day-roosting and/or night-roosting habitat within the BSA. Impacts to the underside of these bridges where bats are likely to roost would not occur as part of Alternative 2. Because those activities would be performed adjacent to highly traveled portions of I-5 and other highly traveled roadways within the BSA and impacts to suitable roosting habitat would be avoided, direct impacts to bat roosting habitat are not anticipated.

Indirect construction-related impacts could temporarily deter access to roost sites in the crevices of bridges, culverts, and overhead structures. Because those activities would be performed on highly traveled roadways, indirect impacts (i.e., noise and lighting) are expected to be minimal. Alternative 2 includes Project Features to avoid adverse effects to roosting bats to the fullest extent practicable. With implementation of —measures ANS-1 through ANS-11, potential temporary impacts to bats and bridge- and crevice-nesting species during construction of Alternative 2 would not be adverse.

The following Project Features would avoid and/or minimize potential impacts to nesting birds during construction of the build alternatives:

PF-ANS-1 Avoidance of Breeding Season. Project activities will occur outside the nesting season (February 1–September 30) to the fullest extent practicable.

PF-ANS-2 Pre-Construction Nesting Bird Survey. If Project activities with potential to indirectly disturb suitable avian nesting habitat within 500 feet (ft) of the work area would occur during the nesting season (as determined by a qualified biologist), a qualified biologist with experience conducting breeding bird surveys will conduct a nesting bird survey no more than 3 days prior to the initiation of Project activities to detect the presence/absence of migratory and resident bird species occurring in suitable nesting habitat. Project activities may begin no more than 3 days after the completion of the nesting bird

survey in the absence of active bird nests. An additional nesting bird survey will be conducted if Project activities fail to start within 3 days of the completion of the pre-construction nesting bird survey.

PF-ANS-3 Nesting Bird Exclusionary Buffers. Should nesting birds be found during the pre-construction nesting bird survey, an exclusionary buffer will be established by the qualified biologist. This buffer will be clearly marked in the field by construction personnel under the guidance of the biologist, and construction will not be conducted in this zone until the biologist determines that the young have fledged or the nest is no longer active. Work may only occur during the breeding season if nesting bird surveys indicate the absence of any active nests within the work area. Without the written approval of the CDFW and/or the USFWS, no work will occur if listed or fully protected bird species are found to be actively nesting within 500 feet of the areas subject to construction activities.

PF-ANS-4 Trash and Waste Removal. During construction, trash and food waste will be removed from work sites on a daily basis to avoid the attraction of predators that prey on sensitive wildlife species.

PF-ANS-5 Construction Equipment Staging. To the extent practicable, internal combustion equipment (e.g., generators and vehicles) is not to be parked or operated beneath or adjacent to the structures unless it is required for Project-related work on that structure.

Build Alternatives (Alternatives 3 and 4)

Monarch butterfly is not anticipated to occur within the freshwater marsh and landscaped habitat that would be temporarily removed by construction of Alternatives 3 and 4. Up to 132.43 acres and 132.48 acres of temporary impacts to marginally suitable habitat are anticipated to occur with construction of Alternatives 3 and 4, respectively. This consists of freshwater marsh (0.04 acre under each alternative) and landscaped area (132.39 acres under Alternative 3/132.44 acres under Alternative 4). Indirect temporary effects to suitable monarch butterfly habitat through construction of Alternatives 3 and 4 may include increased noise, vibration, dust, and lighting during construction activities. In addition, because those activities would be performed on highly traveled portions of I-5 and the monarch butterfly already

experiences noise, vibration, dust, and lighting, indirect impacts are expected to be minimal.

Activities associated with construction of Alternatives 3 and 4 within suitable habitat for western ridged mussel, arroyo chub, Santa Ana speckled dace, arroyo toad, western spadefoot, western pond turtle, and two-striped garter snake are not planned as part of Alternatives 3 and 4. No modifications to suitable habitat are proposed, and no barriers to fish passage would be created by Alternatives 3 and 4. Temporary indirect impacts during construction activities may include an increase or change in off-site runoff due to construction activities. In addition, because those activities would be performed on highly traveled portions of I-5 that already experience off-site runoff, indirect impacts are expected to be minimal. Implementation of Project Features PF-NAT-1 through PF-NAT-5 (defined in Section 2.16.3.1) would ensure that indirect impacts to suitable habitat for these species would be minimal and measures NAT-1 and NAT-2 (defined in Section 2.16.4) would ensure that indirect impacts to suitable habitat for these species are avoided and minimized.

Alternatives 3 and 4 are anticipated to temporarily impact suitable habitat for the coastal whiptail, coast horned lizard, and coast patch-nosed snake. In addition, these areas could be indirectly temporarily impacted by dust, changes in hydrology, erosion, siltation, increased runoff, and invasion by nonnative species introduction and spreading during construction of Alternatives 3 and 4. With implementation of Measure PL-1, as identified in Section 2.18.3, and Measures PF-IS-1, provided in Section 2.20.3.2, potential temporary impacts to these species during construction of Alternatives 3 and 4 would not be adverse.

Construction of the Build Alternatives could also temporarily impact nesting birds protected under the MBTA and the California Fish and Game Code either directly (as a result of the removal of trees occupied by nesting birds or disturbances to bridge and crevice habitat) or indirectly (as a result of disturbances near trees occupied by nesting birds). With implementation of Project Features PF-ANS-1 through PF-ANS-5, potential temporary impacts to nesting birds during construction of Alternatives 3 and 4 would not be adverse.

Bat roosting habitat is subject to direct impacts from implementation of Alternatives 3 and 4, as construction activities would occur on roadways below several bridges and would remove several trees, including palm trees, that provide potentially suitable day-roosting and/or night-roosting habitat within the BSA. Construction activities

proposed on top of the bridges above where bats are likely to roost are not anticipated to directly impact bat roosting habitat. Impacts to the underside of these bridges, where bats are likely to roost, would not occur as part of Alternatives 3 and 4. In addition, impacts would occur on highly traveled portions of I-5, SR-22, SR-55, SR-57, SR-91, SR-261, and other highly traveled roads.

Indirect construction-related impacts could temporarily deter access to roost sites in the crevices of bridges, culverts, and overhead structures. Because those activities would be performed on highly traveled roadways, indirect impacts (i.e., noise, dust, night lighting, and human encroachment) are expected to be minimal.

Alternatives 2, 3 and 4 include Project Features to avoid adverse effects to roosting bats to the fullest extent practicable. With implementation of Measures ANS-1 through ANS-11, potential temporary impacts to bats and bridge- and crevice-nesting species during construction of Alternatives 2, 3 and 4 would not be adverse.

No Build Alternative (Alternative 1)

The No Build Alternative would not include construction of any of the improvements proposed under the build alternatives and thus would not result in the removal of any structures, trees, or vegetation, or result in the generation of any dust, noise, vibration, or erosion. Therefore, the No Build Alternative would not result in temporary impacts to special-status animal species in the BSA, including nesting birds and bats.

2.19.3.2 Permanent Impacts

Build Alternatives (Alternatives 2, 3, and 4)

The Build Alternatives would not result in permanent impacts to monarch butterfly, western ridged mussel, arroyo chub, Santa Ana speckled dace, arroyo toad, western spadefoot, western pond turtle, two-striped garter snake, coastal whiptail, coast horned lizard, and coast patch-nosed snake that have potential but are not expected to occur within the BSA.

The build alternatives would not result in any permanent direct impacts on nesting birds. Humane eviction and exclusion of bats from a roost would be considered a permanent impact if the roost site remained sealed. Indirect noise impacts on bats and nesting birds from traffic on I-5 and area streets would be expected to be the same as under existing conditions.

With implementation of Measure PL-1 (as noted in Section 2.18.3), Project Features PF-ANS-1 through PF-ANS-5, and Measures ANS-1 through ANS-11, potential

direct and indirect permanent impacts to monarch butterfly, western ridged mussel, arroyo chub, Santa Ana speckled dace, arroyo toad, western spadefoot, western pond turtle, two-striped garter snake, coastal whiptail, coast horned lizard, coast patch-nosed snake, nesting birds, and bats and bridge- and crevice-nesting species resulting from implementation of the build alternatives would not be adverse.

No Build Alternative (Alternative 1)

The No Build Alternative would not include the operation of any of the improvements proposed under the build alternatives. Therefore, the No Build Alternative would not result in permanent impacts to special-status animal species in the BSA, including nesting birds and bats.

2.19.4 Avoidance and Minimization Measures

The following measures would avoid and/or minimize potential impacts to bats and bridge- and crevice-nesting species during construction of the build alternatives:

ANS-1 Pre-Construction Bat Surveys. At bridge and culvert structures where construction activities would occur on or below that structure, and where there is also potential for maternity roosting, nighttime bat surveys should be performed by a qualified bat biologist during the peak period (June or July) of the bat maternity season (April 1–August 31) to confirm whether maternity colonies are present. These surveys should be performed by a qualified bat biologist at least 1 year in advance of construction so that appropriate site-specific and species-specific minimization measures can be developed in coordination with the CDFW and a qualified bat biologist.

ANS-2 Avoidance of the Bat Maternity Season. Within 500 feet of structures where maternity roosting is confirmed, activities that pose adverse impacts to roosting bats through elevated noise and vibration, such as demolition and pile-driving activities, shall avoid the recognized bat maternity season (April 1–August 31) to prevent potential mortality of flightless young bats. Any such construction activities at structures housing maternity colonies shall be coordinated with a qualified bat biologist and the CDFW prior to work within the bat maternity season.

ANS-3 Humane Eviction and Exclusion. Direct impacts to bats and bat-roosting habitat are not anticipated from the proposed Project. If direct

impacts to bat-roosting habitat are anticipated, humane evictions and exclusions of roosting bats should be performed under the supervision of a qualified bat biologist in the fall (September or October) prior to any work activities that would result in direct impacts or direct mortality to roosting bats. This action will be performed in coordination with the CDFW. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the maternity season (April 1–August 31). Winter months are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter, when prey availability is scarce, resulting in high mortality rates of evicted bats.

ANS-4 Night Work Lighting. If night work (i.e., between dusk and dawn) is anticipated within 100 feet of structures where bat roosting is confirmed, night lighting shall be used only in areas of active work and shall be focused on the direct area(s) of work and away from the culvert entrances to the greatest extent practicable.

ANS-5 Obstruction of Bat Roosting Features. Airspace access to and from the roost features of the structures shall not be obstructed except in direct work areas, and construction personnel shall not be present in non-active areas beneath the structures or near the entrances to the structures.

ANS-6 Construction Equipment Staging. To the extent practicable, internal combustion equipment (e.g., generators and vehicles) is not to be parked or operated beneath or adjacent to the structures unless it is required for Project-related work on that structure.

ANS-7 Replacement Lighting Locations. The proposed Project includes the replacement of lighting in various areas. Siting of these lights should avoid overspill into bat-roosting sites, and light shields should be installed for lights adjacent to suitable foraging habitat to avoid permanent impacts to roosting and foraging bats.

ANS-8 Swallow Nest Removal. If swallow nests are removed to prevent swallows from nesting in the Project area during construction activities, the nests should be inspected for roosting bats by a CDFW-

approved bat biologist and removed in the fall (September or October) in a manner that ensures they do not fall to the ground before lack of occupancy has been established.

- ANS-9** **Tree Trimming and Removal.** To the greatest extent feasible, tree trimming/removal activities shall be performed outside the bat maternity season (April 1–August 31) to avoid direct impacts to nonvolant (flightless) young that may roost in trees within the study area. This period also coincides with the typical bird nesting season. If trimming or removal of trees during the bat maternity season cannot be avoided, a qualified biologist shall monitor tree trimming and removal activities.
- ANS-10** **Compensation for Direct Impacts to Bats.** If permanent, direct impacts to bat-roosting habitat are anticipated and/or a humane eviction/exclusion is performed, alternate roosting habitat shall be provided to ensure no net loss of bat-roosting habitat. The design, numbers, and locations of these roost structures should be determined in consultation with a qualified bat biologist. This action shall be coordinated with Caltrans, the CDFW, and a qualified bat biologist to ensure that the installed habitat will provide adequate mitigation for impacts.
- ANS-11** **Construction Night Lighting.** All lighting used at night for Project construction will be of the lowest illumination necessary for human safety and will be selectively placed and directed at the immediate work area and away from adjacent habitats. Light glare shields will be used to reduce the extent of illumination into habitats.

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