



San Joaquin  
Joint Powers Authority

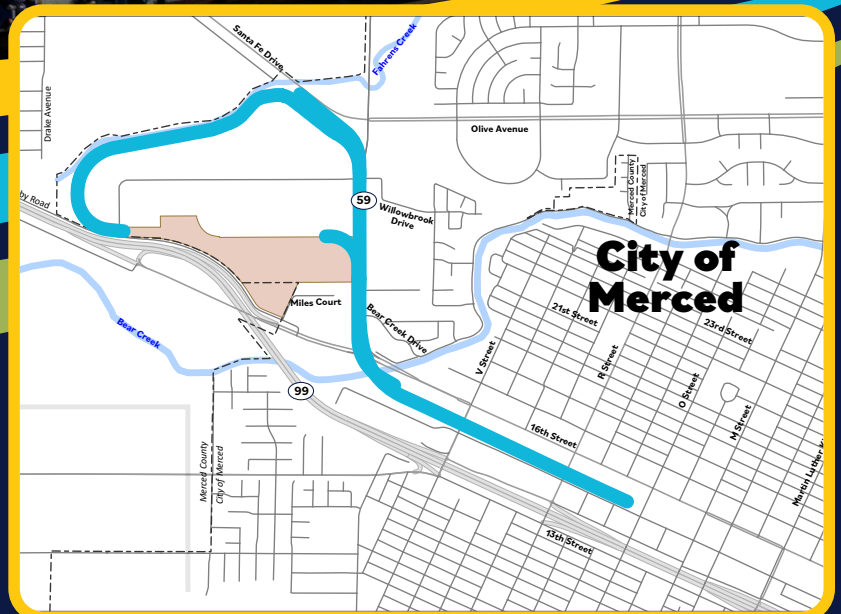


MITC  
Merced Intermodal Track Connection

# Appendix 3.4-3: Special-Status Species Tables

July 2024

SCH # 2023010061



1 **Table 3.4-3.1. Special-Status Plant Species Known or with Potential to Occur in the Study Area**

<b>Common Name</b> <i>Scientific Name</i>	<b>Status<sup>a</sup></b> <b>Federal/ State/CNPS</b>	<b>Geographic Distribution</b>	<b>General Habitat Description</b>	<b>Habitat Present/ Absent</b>	<b>Rationale</b>
<b>Plants</b>					
Vernal pool smallscale <i>Atriplex persistens</i>	-/-/1B.2	Central Valley, from Glenn to Tulare County	Dry beds of vernal pools on alkaline soils; 35–375 feet; blooms June–October	Absent	Suitable vernal pool habitat is absent.
Watershield <i>Brasenia schreberi</i>	-/-/2B.3	Scattered occurrences in north and central California; widespread across United States	Freshwater marshes; 0–7,220 feet; blooms June–September	Present	Freshwater marsh habitat is present along edges of Bear Creek and Fehrens Creek; one historic (1915) CNDDDB occurrence is within the southeast part of the study area.
Succulent owl's clover <i>Castilleja campestris</i> var. <i>succulenta</i>	T/E/1B.2	Eastern edge of San Joaquin Valley and adjacent foothills, from Stanislaus to Fresno Counties	Vernal pools, often on acidic soils; 165–2,460 feet; blooms (March) April–May	Absent	Suitable vernal pool habitat is absent; one CNDDDB occurrence is 2 miles north of the study area.
Small-flowered morning-glory <i>Convolvulus simulans</i>	-/-/4.2	San Joaquin Valley, central western and southwestern California, southern Channel Islands; Baja California	Chaparral openings, coastal scrub, valley and foothill grassland, clay soils in serpentinite seeps; 100–2,430 feet; blooms March–July	Absent	Suitable seep habitat is absent.
Dwarf downingia <i>Downingia pusilla</i>	-/-/2B.2	Central Valley	Vernal pools and mesic valley and foothill grasslands; 5–1,460 feet; blooms March–May	Absent	Suitable vernal pool habitat is absent.

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Spiny-sepaled button-celery <i>Eryngium spinosepalum</i>	-/-/1B.2	Eastern San Joaquin Valley and Sierra Nevada foothills in Fresno, Madera, Merced, Stanislaus, Tulare, and Tuolumne Counties	Valley and foothill grassland, vernal pools; 260–3,200 feet; blooms April–June	Present	Marginal, disturbed annual grassland habitat is present in ruderal vegetation, suitable vernal pool habitat is absent.
Hogwallow starfish <i>Hesperovax caulescens</i>	-/-/4.2	Alameda, Amador, Butte, Contra Costa, Colusa, Fresno, Glenn, Kern, Merced, Napa, San Diego, San Joaquin, San Luis Obispo, Solano, Stanislaus, Sutter, Tehama, and Yolo Counties	Vernal pools and mesic valley and foothill grasslands on clay soils, sometimes alkaline; 0–1,655 feet; blooms March–June	Absent	Suitable mesic habitat is absent.
Forked hare-leaf <i>Lagophylla dichotoma</i>	-/-/1B.1	Butte*, Calaveras, Fresno, Merced*, Monterey, San Benito, and Stanislaus Counties	Cismontane woodland, valley and foothill grassland, sometimes on clay soils; 150–1,100 feet; blooms April–May	Present	Marginal, disturbed annual grassland habitat is present in ruderal vegetation.
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radicans</i>	-/-/1B.2	Interior foothills of South Coast Ranges from Merced County to San Luis Obispo County	Vernal pools, oak woodland, valley and foothill grassland, sometimes on clay; 215–3,280 feet; blooms (March) April–July	Present	Marginal, disturbed annual grassland habitat is present in ruderal vegetation.
Colusa grass <i>Neostapfia colusana</i>	T/E/1B.1	Central Valley: Colusa*, Glenn, Merced, Solano, Stanislaus, and Yolo Counties	Adobe soils of vernal pools; 15–655 feet; blooms May–August	Absent	Suitable vernal pool habitat is absent.
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	T/E/1B.1	Scattered locations along east edge of the San Joaquin Valley and adjacent foothills, from Stanislaus County to Tulare County	Vernal pools; 35–2,475 feet; blooms April–September	Absent	Suitable vernal pool habitat is absent.

<b>Common Name Scientific Name</b>	<b>Status<sup>a</sup> Federal/ State/CNPS</b>	<b>Geographic Distribution</b>	<b>General Habitat Description</b>	<b>Habitat Present/ Absent</b>	<b>Rationale</b>
Hairy Orcutt grass <i>Orcuttia pilosa</i>	E/E/1B.1	Scattered locations along east edge of the Central Valley and adjacent foothills from Tehama to Merced Counties	Vernal pools; 150–655 feet; blooms May–September	Absent	Suitable vernal pool habitat is absent.
Merced phacelia <i>Phacelia ciliata</i> var. <i>opaca</i>	-/-/3.2	Merced County	Adobe or clay soils of valley floor, open hills, alkali flats, or grasslands; 195–490 feet; blooms February–May	Present	Marginal, disturbed annual grassland habitat is present in ruderal vegetation.
Sanford’s arrowhead <i>Sagittaria sanfordii</i>	-/-/1B.2	Scattered locations in Central Valley and Coast Ranges	Freshwater marshes, sloughs, canals, and other slow-moving water habitats; 0–2,135 feet; blooms May–October (November)	Present	Freshwater marsh habitat is present along edges of Bear Creek and Fehrens Creek.
Keck’s checkerbloom <i>Sidalcea keckii</i>	E/-/1B.1	Known from three occurrences in Fresno, Merced, and Tulare Counties; plants from inner North Coast Ranges in Colusa, Napa, Solano, and Yolo Counties may be <i>Sidalcea diploscypha</i> , needs study	Oak woodland, valley and foothill grassland on serpentine clay soils; 245–2,135 feet; blooms April–May (June)	Absent	Suitable soils are absent.

- 1 Notes:
- 2 Sources: California Department of Fish and Wildlife 2023; California Native Plant Society 2023
- 3 \* = populations extirpated in the county.
- 4 () = Months in parentheses indicate species blooms occasionally during this month.
- 5 <sup>a</sup> Status explanations:
- 6 **Federal**
- 7 E = listed as endangered under the federal Endangered Species Act (ESA).
- 8 T = listed as threatened under ESA.
- 9 - = no listing.
- 10 **State**
- 11 E = listed as endangered under the California Endangered Species Act (CESA).
- 12 - = no listing.

- 1 **California Native Plant Society (CNPS) California Rare Plant Rank (CRPR)**
- 2 1A = List 1A species: plants presumed extirpated in California and either rare or extinct elsewhere.
- 3 1B = List 1B species: plants rare, threatened, or endangered in California and elsewhere.
- 4 2B = List 2B species: plants rare, threatened, or endangered in California, but more common elsewhere.
- 5 3 = List 3 species: plants about which more information is needed, a review list
- 6 4 = List 4 species: limited distribution; species on a watch list (note: List 4 may not meet the definition of special status but may warrant consideration on the basis of
- 7 local significance or recent biological information)
- 8 **CRPR Code Extensions:**
- 9 0.1 = seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).
- 10 0.2 = fairly endangered in California (20–80% of occurrences threatened).
- 11 0.3 = not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

1 **Table 3.4-3.2. Special-Status Wildlife Known or with Potential to Occur in the Study Area**

<b>Common Name</b> <i>Scientific Name</i>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Habitat</b> <b>Present/</b> <b>Absent</b>	<b>Rationale</b>
<b>Invertebrates</b>					
Conservancy fairy shrimp <i>Branchinecta</i> <i>conservatio</i>	FE/-/-	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands.	Absent	Vernal pool and/or suitable seasonal wetland habitat is absent.
Vernal pool fairy shrimp <i>Branchinecta</i> <i>lynchi</i>	FT/-/-	Central Valley, central and south Coast Ranges from Tehama to Santa Barbara County; isolated populations in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools.	Absent	Vernal pool and/or suitable seasonal wetland habitat is absent.

Common Name Scientific Name	Status <sup>a</sup> Federal/ State/ Other	Geographic Range	General Habitat Description	Habitat Present/ Absent	Rationale
Monarch butterfly <i>Danaus plexippus plexippus</i>	FC/-/-	Occurs throughout the western United States to southern Canada, but uncommon in western Washington, northwest Oregon, and western British Columbia. Overwintering western population occurs along the California coast, from Mendocino County, south to northern Baja California. Spring and fall migratory individuals occur from coastal California, inland toward Rockies and to Pacific Northwest. Summer breeding range is North America where nectar and breeding resources are present.	Habitat includes breeding, migration, and overwintering sites with floral resources (nectar sources). Milkweed (primarily <i>Asclepias</i> spp.) is the obligate host plant for oviposition and larvae feeding. Adults feed on a diversity of blooming nectar resources. Nectar and milkweed resources required year-round. Nectar and milkweed resources are often associated with riparian corridors and milkweed may function as the principal nectar source for monarchs in arid regions. Uses a variety of roosting trees along migration route. Wintering roosting groves include the following tree species: blue gum eucalyptus ( <i>Eucalyptus globulus</i> ), Monterey pine ( <i>Pinus radiata</i> ), and Monterey cypress ( <i>Hesperocyparis macrocarpa</i> ).	Present - Spring, Summer, Fall  Absent- Winter	Survey area occurs within the spring and summer breeding range of the species. Western Monarch Milkweed Mapper (a collaborative mapping project with the Xerces Society, U.S. Fish and Wildlife, and State Wildlife Agencies to document species and habitat occurrence [ <a href="https://www.monarchmilkweedmapper.org/">https://www.monarchmilkweedmapper.org/</a> ]) indicate that milkweed plants, monarch butterfly, or monarch butterfly breeding has not been observed within the survey area. The nearest record for monarch breeding is located 12 miles southwest of the survey area within the Merced National Wildlife Refuge. Nectar and milkweed resources may be found in undeveloped landcover types (ruderal and ruderal riparian), as well as developed/landscaped land cover (e.g., urban gardens). Therefore, suitable habitat is present, but occurrence, especially breeding, is unlikely and would only occur during spring, summer, and fall months. Study area lacks suitable overwintering habitat (groves of trees generally within 1.5 miles of the Pacific Ocean or San Francisco Bay).

<b>Common Name</b> <i>Scientific Name</i>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Habitat</b> <b>Present/</b> <b>Absent</b>	<b>Rationale</b>
Valley elderberry longhorn beetle <i>Desmocerus</i> <i>californicus</i> <i>dimorphus</i>	FT/-/-	Riparian habitats below 3,000 feet throughout the Central Valley	Valley elderberry longhorn beetle is found only in association with its host plant, blue elderberry, which is commonly found in riparian forests and adjacent uplands in the Central Valley and foothills.	Present	One elderberry shrub was observed along Black Rascal Creek on the May 2, 2023 site visit; however, no exit holes were observed. This species is not known to occur along Black Rascal or Bear Creek and the nearest CNDDDB occurrence is located 12 miles to the northwest along the Merced River. Therefore, suitable habitat is present, but occurrence is unlikely.
Vernal pool tadpole shrimp <i>Lepidurus</i> <i>packardi</i>	FE/-/-	Shasta County south to Merced County	Found in vernal pools and ephemeral stock ponds.	Absent	Vernal pool and/or suitable seasonal wetland habitat is absent.
<b>Amphibians</b>					
California tiger salamander <i>Ambystoma</i> <i>californiense</i>	FT/ST/-	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet in elevation, and coastal region from Sonoma County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for breeding; rodent burrows, rock crevices, or fallen logs for upland cover during dry season.	Absent	Although suitable upland habitat (ruderal with small mammal burrows) is present, no suitable aquatic breeding habitat was observed within the survey area. Although aquatic breeding habitat was not evaluated 1.2 miles from the Project footprint, significant barriers (major roads, creeks) surround the project footprint. The nearest CNDDDB occurrence is located 5 miles to the northeast and is from 2000.



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<b>Reptiles</b>					
Western pond turtle <i>Emys marmorata</i>	-/-/SSC	From the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada	Ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests.	Present	Black Rascal Creek and Bear Creek provide suitable aquatic habitat. Upland habitats surrounding both creeks are marginal due to their steep banks. The nearest CNDDDB occurrence is located 3 miles to the northwest within Canal Creek near the Castle Air Force Base.
Giant gartersnake <i>Thamnophis gigas</i>	FT/ST/-	Central Valley from the vicinity of Burrel in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.	Absent	Black Rascal Creek and Bear Creek provide marginal aquatic habitat and surrounding uplands are unsuitable. There is a CNDDDB occurrence from 1908, considered possibly extirpated, mapped non-specifically to the center of Merced that overlaps the survey area. However, the nearest extant CNDDDB occurrence is located 16 miles to the southwest within the Great Valley Grasslands State Park.
<b>Birds</b>					
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	-/T/SSC	Permanent resident in the Central Valley from Butte County to Kern County; breeds at scattered coastal locations from Marin County south to San Diego County, and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony.	Present	Survey area contains marginal nesting habitat (ruderal riparian and emergent marsh along Black Rascal and Bear Creek) and foraging habitat (ruderal, ruderal riparian, freshwater marsh). There are two CNDDDB occurrences less than 0.5 mile from the survey area, both from 1933 considered possibly extirpated. The nearest extant CNDDDB occurrence is located 1.5 miles north of the survey area from 1935 along Black Rascal Creek.

<b>Common Name</b> <i>Scientific Name</i>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat</b> <b>Description</b>	<b>Habitat</b> <b>Present/</b> <b>Absent</b>	<b>Rationale</b>
Burrowing owl <i>Athene cunicularia</i>	-/-/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low-stature grassland or desert vegetation to forage in with available burrows for refuge and nesting	Present	Survey area includes suitable grassland habitat with small mammal or artificial burrows. The nearest CNDDDB occurrence is 1.3 miles south of the survey area near the Merced Municipal Airport.
Swainson's hawk <i>Buteo swainsoni</i>	-/ST/-	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields.	Present	Suitable nesting habitat (ruderal riparian) and foraging habitat (ruderal) occurs within the study area. One Swainson's hawk was observed soaring over the survey area during the site assessment on May 2, 2023. The nearest CNDDDB occurrence is 1.5 miles to the northwest in a eucalyptus tree along Highway 99.
Mountain plover <i>Charadrius montanus</i>	-/-/SSC	Does not breed in California; in winter, found in the Central Valley south of Yuba County, along the coast in parts of San Luis Obispo, Santa Barbara, Ventura, and San Diego Counties; parts of Imperial, Riverside, Kern, and Los Angeles Counties	Occupies open plains or rolling hills with short grasses or very sparse vegetation; nearby bodies of water are not needed; may use newly plowed or sprouting grainfields.	Absent	Foraging habitat within the survey area is marginal (ruderal) and too disturbed (i.e., plowing, pedestrian, vehicle, and train traffic) to support this species. Nesting does not occur in California. The nearest CNDDDB occurrence is 6 miles northeast of the survey area from 1999 within a nonnative grassland.

Common Name <i>Scientific Name</i>	Status <sup>a</sup> Federal/ State/ Other	Geographic Range	General Habitat Description	Habitat Present/ Absent	Rationale
Bald eagle <i>Haliaeetus leucocephalus</i>	FD/SE/FP	Most breeding territories are in northern California but are also in scattered locations in the central and southern Sierra Nevada Mountains and foothills, in several locations from the central Coast Ranges to inland southern California, and on Santa Catalina Island.	Nests and roosts in mountain and foothill coniferous forests within 1 mile of large bodies of water (lake, reservoir, river, or the ocean).	Absent	Suitable nesting and foraging habitat are absent from the survey area. The species does not typically nest on the valley floor. Ruderal riparian is too disturbed to support nesting. Creeks within the survey area are not large enough to support nearby nesting or foraging. Ruderal habitat is too disturbed to support foraging. The nearest CNDDDB occurrence is 5 miles northeast near Lake Yosemite, which is a roosting location, and lacks a survey date.
<b>Mammals</b>					
Western mastiff bat <i>Eumops perotis californicus</i>	-/-/SSC, WBWG-High	Occurs along the western Sierra primarily at low to mid elevations and widely distributed throughout the southern coast ranges; recent surveys have detected the species north to the Oregon border	Found in a wide variety of habitats from desert scrub to montane conifer; roosts and breeds in deep, narrow rock crevices, but may also use crevices in trees, buildings, and tunnels.	Present	Survey area contains suitable roosting and foraging habitat (ruderal riparian habitat and man-made structures). The nearest CNDDDB occurrence overlaps the survey area, is from 1991, and mapped non-specifically to the center of Merced.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/ST/-	San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	Absent	Ruderal habitats are too disturbed (plowing) to support this species. The survey area is outside the known range of this species or any known recovery units (USFWS 2020).

- 1 Notes:
- 2 <sup>a</sup> Status Codes
- 3 - no listing.
- 4 FE listed as endangered under the federal Endangered Species Act.

- 1 FT listed as threatened under the federal Endangered Species Act.
- 2 FC candidate species for listing under the federal Endangered Species Act.
- 3 FD delisted under the federal Endangered Species Act.
- 4 PD proposed for delisting under the federal Endangered Species Act.
- 5 D delisted.
- 6 SE listed as endangered under the California Endangered Species Act.
- 7 ST listed as threatened under the California Endangered Species Act.
- 8 SSC listed as a Species of Special Concern by the State of California.
- 9 SCT candidate for state threatened listing under the California Endangered Species Act.
- 10 FP California fully protected species.
- 11 WBWG Western Bat Working Group conservation priority (High or Medium).

1 **Table 3.4-3.3. Special-Status Fish Species Known or with Potential to Occur in the Study Area**

<b>Common Name</b> <i>Scientific Name</i>	<b>Status<sup>a</sup></b> <b>Federal/</b> <b>State/</b> <b>Other</b>	<b>Geographic Range</b>	<b>General Habitat Description</b>	<b>Habitat</b> <b>Present/</b> <b>Absent</b>	<b>Rationale</b>
<b>Fish</b>					
River lamprey <i>Lampetra ayresi</i>	-/-/SSC	San Francisco Bay to just north of Juneau, Alaska. Recorded from Sacramento-San Joaquin Delta, tributaries to Sacramento and San Joaquin Rivers	Adults live in the ocean and migrate into larger coastal freshwater river systems to spawn.	Present	Study area located in species' known range.
Steelhead, Central Valley DPS <i>Oncorhynchus</i> <i>mykiss irideus</i>	FT/-/CH	Sacramento and San Joaquin Rivers and their tributaries	Occurs in the Sacramento and San Joaquin Rivers and their tributaries in well-oxygenated, cool, riverine habitat with water temperatures from 7.8 to 18°C (Moyle 2002); habitat types are riffles, runs, and pools.	Present	Central Valley steelhead may stray into Bear and Black Rascal Creeks (NMFS 2016).
Central Valley fall-run Chinook salmon <i>Oncorhynchus</i> <i>tshawytscha</i>	-/SSC	Sacramento and San Joaquin Rivers and their tributaries.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 8.0 to 12.5°C; habitat types are riffles, runs, and pools. (Moyle 2002)	Present	Fall-run Chinook salmon may stray into Bear and Black Rascal Creeks. Pacific salmon EFH is present in both creeks (NMFS 2024).
Delta smelt <i>Hypomesus</i> <i>transpacificus</i>	FT/SE/-	Primarily in the Sacramento-San Joaquin Estuary, but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2-7 parts per thousand (Moyle 2002)	Absent	Study area located outside of species' known range
Hardhead <i>Mylopharodon</i> <i>conocephalus</i>	-/-/SSC	Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the mainstem	Reside in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities; also occur in reservoirs	Present	Study area is within the species range and Bear and Black Rascal Creeks provide suitable habitat.

- 1 Notes:
- 2 EFH essential fish habitat
- 3 a Status Codes
- 4 - no listing.
- 5 FE listed as endangered under the federal Endangered Species Act.
- 6 FT listed as threatened under the federal Endangered Species Act.
- 7 SE listed as endangered under the California Endangered Species Act.
- 8 SSC listed as a Species of Special Concern by the State of California.
- 9 CH Critical Habitat