

Attachment B

Biological Resources

Special-Status Plant Species Known to Occur in the Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR	Habitat	Potential for Occurrence
lone manzanita <i>Arctostaphylos myrtifolia</i>	FT	–	1B.2	Chaparral or cismontane woodland. Acidic sandy or clay soils with chaparral associates. Often comprises 50-80 percent cover. 295–1,840 feet in elevation. Blooms November–March. Perennial.	<i>May occur.</i> Chaparral and woodland with acidic sandy soil woodland habitat potentially suitable for this species is present in the project area. Although the project area is outside the extent of the lone formation which is where USFWS determined the extent of the species to be in 2010, a documented occurrence was recorded in 2015 7.7 miles south of the project area and 9.5 miles east-northeast of the lone formation (USFWS 2010; CNDDDB 2022).
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	–	–	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Usually (65 to 74 percent of occurrences) on serpentine. 115–4,810 feet in elevation. Blooms March–June. Perennial.	<i>May occur.</i> Chaparral, grassland, and woodland habitat potentially suitable for this species is present in the project area.
Watershield <i>Brasenia schreberi</i>	–	–	2B.3	Freshwater marshes and swamps, ponds, and slow streams. Aquatic from water bodies both natural and artificial in California. 95–7,220 feet in elevation. Blooms June–September. Perennial (aquatic).	<i>May occur.</i> Aquatic habitat, including ponds, potentially suitable for this species is present in the project area.
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	–	–	1B.2	Cismontane woodland, chaparral, lower montane coniferous forest. Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" sites. 805–4,070 feet in elevation. Blooms May–June. Geophyte.	<i>May occur.</i> Historically disturbed sites in chaparral, woodland, and conifer habitat potentially suitable for this species is present in the project area.
Yellow-lip pansy monkeyflower <i>Diplacus pulchellus</i>	–	–	1B.2	Lower montane coniferous forest, meadows, and seeps. Vernal wet depressions or seepage areas. Soils can be clay, volcanic, or granitic. 2,200–6,400 feet in elevation. Blooms April–July. Annual herb.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area.
lone buckwheat <i>Eriogonum apricum</i> var. <i>apricum</i>	FE	SE	1B.1	lone formation. Chaparral. In gravelly openings on lone formation soil. 275–495 feet in elevation. Blooms July–October. Perennial.	<i>Not expected to occur.</i> Project area is not located within the boundary of the lone formation. This rock formation is located west, northwest, and southwest of the project area (USGS 2007).

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR	Habitat	Potential for Occurrence
Tuolumne button-celery <i>Eryngium pinnatisectum</i>	–	–	1B.2	Volcanic soils; vernal pools, swales, intermittent streams. 230–3,005 feet in elevation. Blooms May–August. Annual or perennial.	<i>May occur.</i> Intermittent stream with volcanic soil habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1892 approximately 2 miles north of the project area (CNNDDB 2022).
Stanislaus monkeyflower <i>Erythranthe marmorata</i>	–	–	1B.1	Cismontane woodland, lower montane coniferous forest. Seeps, streambanks. 330–2,955 feet in elevation. Blooms March–May. Annual.	<i>May occur.</i> Wetland and streambank habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1892 approximately 1.4 miles east of the project area (CNDDDB 2022).
Parry's horkelia <i>Horkelia parryi</i>	–	–	1B.2	lone formation. Openings in chaparral or woodland; especially known from the lone formation in Amador County. 280–3,660 feet in elevation. Blooms April–September. Perennial.	<i>May occur.</i> Openings in chaparral and woodland habitat potentially suitable for this species is present in the project area.
Patterson's navarretia <i>Navarretia paradoxiclara</i>	–	–	1B.3	Meadows and seeps. Serpentine endemic found in, openings, vernal mesic openings, often in drainages. 490–1,410 feet in elevation. Blooms May–June. Annual.	<i>Not expected to occur.</i> Project area does not contain serpentinite habitat potentially suitable for this species.
Prairie wedge grass <i>Sphenopholis obtusata</i>	–	–	2B.2	Wet meadows, streambanks, ponds. 985–6,565 feet in elevation. Blooms April–July. Perennial.	<i>May occur.</i> Streambank and pond habitat potentially suitable for this species is present in the project area.

Notes: CRPR = California Rare Plant Rank; CEQA = California Environmental Quality Act; ESA = Endangered Species Act; NPPA = Native Plant Protection Act

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected by ESA)

FT Federally Listed as Threatened (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

California Rare Plant Ranks (CRPR):

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

CRPR Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Sources: CNDDDB 2022; CNPS 2022; USGS 2007; USFWS 2022.

Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Area and Their Potential for Occurrence in the Project Area

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence
Amphibians and Reptiles				
California red-legged frog <i>Rana draytonii</i>	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	<i>May occur.</i> The nearest documented occurrence of California red-legged frog is approximately 10 miles south of the project area (CNDDDB 2022). Aquatic habitat, including segments of Jackson Creek and South Fork Jackson Creek that contain deep pools and stock ponds in the project area may provide habitat suitable for this species.
California tiger salamander - central California DPS <i>Ambystoma californiense</i> pop. 1	FT	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. While portions of the project area are within the easternmost extent of the range of California tiger salamander (i.e., specifically along SR 88 west of Previtali Road), most of the project area is outside of the range of this species. Additionally, the small portions of the project area within the range of California tiger salamander contain forest habitat, which is not suitable for this species.
Coast horned lizard <i>Phrynosoma blainvillii</i>	-	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	<i>May occur.</i> The project area is within the documented range of coast horned lizard. Shrub habitat in the project area may provide habitat suitable for this species.
Foothill yellow-legged frog <i>Rana boylei</i>	-	SE; SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	<i>May occur.</i> The nearest documented occurrence of foothill yellow-legged frog is 2.9 miles southwest of the project area (CNDDDB 2022). Perennial streams (i.e., Class I streams, Class II streams) in the project area (e.g., segments of South Fork Jackson Creek and Jackson Creek) may provide habitat suitable for this species.
Giant gartersnake <i>Thamnophis gigas</i>	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The project area is outside of the current range of giant gartersnake.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence
Western pond turtle <i>Emys marmorata</i>	–	SSC	Aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	<i>May occur.</i> The nearest documented occurrence of western pond turtle is approximately 1.5 miles north of the project area within Grass Valley Creek, a tributary to Sutter Creek (CNDDDB 2022). There are also several documented occurrences of the species in Jackson Creek and South Fork Jackson Creek approximately 1.5 to 2 miles west of the project area near Jackson (CNDDDB 2022). Aquatic habitat throughout the project area, including Jackson Creek, South Jackson Creek, the Amador Canal, ponds, and irrigation ditches, may provide habitat suitable for this species.
Birds				
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE; FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	<i>May occur.</i> The nearest documented occurrence of nesting bald eagles is approximately 14 miles southwest of the project area near New Hogan Lake (CNDDDB 2022). Most of the project area does not contain nesting habitat suitable for bald eagles. However, the southeastern portion of the project area within approximately 1 mile of Lake Tabeaud may provide habitat suitable for the species.
California spotted owl <i>Strix occidentalis occidentalis</i>	–	SSC	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure greater than 40 percent. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	Not expected to occur. Most of the project area is located outside of the current range of California spotted owl; however, portions of the project area east of approximately East Clinton Road are located within the breeding range of the species. The nearest documented California spotted owl activity center is approximately 3.5 miles east of the project area near Glencoe, CA (Calaveras County; CNDDDB 2022). While part of the project area is within the California spotted owl breeding range, habitat present in the project area does not have the characteristics preferred by the species, including old growth or late successional forest structure and high canopy closure. The project area is historically disturbed and contains rural residential parcels that would not provide habitat suitable for California spotted owl.
Golden eagle <i>Aquila chrysaetos</i>	–	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The nearest documented occurrence of nesting golden eagles is approximately 16 miles west of the project area near the Sacramento County-Amador County boundary (CNDDDB 2022). The project area does not contain large areas of open grassland or sagebrush habitats preferred by this species.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence
Great gray owl <i>Strix nebulosa</i>	–	SE	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	<i>May occur.</i> There are several documented occurrences of nesting great gray owls approximately 8 to 10 miles north of the project area in El Dorado County (CNDDDB 2022). While most of the project area does not contain habitat suitable for great gray owl, the eastern portion of the project area (i.e., areas greater than 2,000 feet in elevation) contains some Sierran mixed conifer habitat that may provide nesting habitat suitable for the species where this habitat is adjacent to open areas.
Olive-sided flycatcher <i>Contopus cooperi</i>	–	SSC	Nesting habitats are mixed conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir and lodgepole pine. Most numerous in montane conifer forests where tall trees overlook canyons, meadows, lakes, or other open terrain.	<i>May occur.</i> The project area contains forest habitat that may provide nesting habitat suitable for olive-sided flycatchers.
Tricolored blackbird <i>Agelaius tricolor</i>	–	ST; SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	<i>May occur.</i> The nearest documented occurrence of a nesting tricolored blackbird colony is approximately 8 miles northwest of the project area (CNDDDB 2022). Habitat potentially suitable for nesting tricolored blackbirds is present in the western half of the project area (i.e., below approximately 2,000 feet in elevation) within riparian vegetation adjacent to creeks and ponds as well as thickets of Himalayan blackberry (<i>Rubus armeniacus</i>).
Fish				
Chinook salmon - Central Valley fall / late fall-run ESU <i>Oncorhynchus tshawytscha</i> pop. 13	–	SSC	Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The project area is outside of the current range of this species.
Delta smelt <i>Hypomesus transpacificus</i>	FT	SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay.	Not expected to occur. The project area is outside of the current range of this species.
Hardhead <i>Mylopharodon conocephalus</i>	–	SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity.	Not expected to occur. The project area is outside of the current range of this species.
Steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus</i> pop. 11	FT	–	Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The project area is outside of the current range of this species.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence
Invertebrates				
Crotch bumble bee <i>Bombus crotchii</i>	–	–	Xeric and coastal sites in southern California and in the Central Valley. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Not expected to occur. While the project area is located within the historic range of Crotch bumble bee, the current range of this species is largely restricted to coastal areas in southern California and the Central Valley.
Monarch - California overwintering population <i>Danaus plexippus</i> pop. 1	FC	–	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Along migration routes and within summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (<i>Asclepias</i> spp.) within the family Apocynaceae upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators.	<i>May occur.</i> The project area is outside of the overwintering range of monarch butterfly. However, the project area contains grassland and open woodland habitats with floral resources and likely contains milkweed plants; thus, monarch may forage or breed on the project area.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	–	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not expected to occur. The project area is outside of the current range of valley elderberry longhorn beetle.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	–	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. The project area is outside of the current range of vernal pool fairy shrimp.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	–	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. The project area is outside of the current range of vernal pool tadpole shrimp.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence
Western bumble bee <i>Bombus occidentalis</i>	–	–	Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not expected to occur. The nearest documented historic (1961) occurrence of western bumble bee is approximately 18 miles southeast of the project area in Calaveras County (CNDDDB 2022). The project area is within the historic range of this species. However, western bumble bee has recently undergone a dramatic decline in abundance and distribution and is no longer present across much of its historic range. In California, western bumble bee populations are currently largely restricted to high elevation sites in the Sierra Nevada (Xerces Society 2018).
Mammals				
American badger <i>Taxidea taxus</i>	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	<i>May occur.</i> While there are no documented occurrences of American badger in the vicinity of the project area, the project area is located within the range of American badger (CNDDDB 2022). Grassland habitat and open woodlands within the project area may provide habitat suitable for this species.
Pallid bat <i>Antrozous pallidus</i>	–	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	<i>May occur.</i> The nearest documented occurrence of pallid bat is approximately 14 miles northwest of the project area (CNDDDB 2022). The documented range of pallid bat includes the project area. Large trees in woodlands, forests, or rural residential areas or rocky areas within the project area may provide roosting habitat suitable for pallid bats.
Ringtail <i>Bassariscus astutus</i>	–	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	<i>May occur.</i> The documented range of ringtail includes the project area. Riparian, forest, woodland, and shrub habitats in the project area may provide habitat suitable for ringtail.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	–	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	<i>May occur.</i> The nearest documented occurrence of Townsend's big-eared bat is approximately 2.4 miles north of the project area (CNDDDB 2022). The documented range of Townsend's big-eared bat includes the project area. Large trees in woodlands, forests, or rural residential areas or human-made structures (e.g., bridges, barns) within the County may provide roosting habitat suitable for Townsend's big-eared bats.
Western red bat <i>Lasiurus blossevillii</i>	–	SSC	Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	<i>May occur.</i> The nearest documented occurrence of pallid bat is approximately 26 miles south of the project area (CNDDDB 2022). The documented range of western red bat includes the project area. Trees in woodlands, forests, riparian corridors, or orchards within the County may provide roosting habitat suitable for western red bat.

Notes: CNDDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected)

FT	Federally Listed as Threatened (legally protected)
FC	Federal Candidate for Listing
FD	Federally Delisted
State:	
FP	Fully Protected (legally protected)
SSC	Species of Special Concern (no formal protection other than CEQA consideration)
SE	State Listed as Endangered (legally protected)
ST	State Listed as Threatened (legally protected)

Sources: CNDDDB 2022; USFWS 2022; Xerces Society 2018.

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