

Table 4: Species of Concern within the Project Vicinity

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence and Rationale
Plant Species				
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milkvetch	Fed: -- CA: -- CNPS 1B.1	An annual herb inhabiting Alkaline Flats, vernal moist meadows, and Valley and Foothill Grassland communities. Flowers Apr-May (6-246 ft).	Presumed Absent; The project site contains adjacent grassland habitat and occurs within wet areas associated with the lower Feather River potentially suitable for Ferris' milkvetch. The nearest CNDDDB occurrence is within a 1 mile accuracy of the site. Observance documented in 1891. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
<i>Downingia pusilla</i>	Dwarf downingia	Fed: -- CA: -- CNPS 2.2	An annual herb inhabiting roadside ditches and vernal pools of Valley and Foothill Grassland communities. Flowers Mar-May (3-1,459 ft).	Presumed Absent; The project site lacks vernal pool communities, but contains roadside ditches potentially suitable for dwarf downingia. The nearest CNDDDB occurrence is 7.5 miles from the site. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	Woolly rose-mallow	Fed: -- CA: -- CNPS 2.2	A perennial rhizomatous herb inhabiting wet bank, freshwater marsh; and swamp communities. Flowers Jun-Sep (0-393 ft).	Presumed Absent; The site occurs within wet areas associated with the lower Feather River potentially suitable for Woolly rose-mallow. The nearest CNDDDB occurrence is 8.5 miles from the site. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
<i>Legenere Limosa</i>	Legenere	Fed: -- CA: -- CNPS 1B.1	An annual herb inhabiting wet areas, prefers vernal pool communities. Flowers Apr-Jun (3-2,887 ft).	Presumed Absent; The site occurs within wet areas associated with the lower Feather River, but lacks preferred vernal pool communities; habitat unsuitable for legenere. The nearest CNDDDB occurrence is 7.5 miles from the site.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
<i>Monardella douglasii</i> ssp. <i>venosa</i>	Veiny monardella	Fed: CA: CNPS	-- -- 1B.1	An annual herb inhabiting Cismontane Woodland and heavy clay soils of Valley and Foothill Grassland Communities. Flowers May-Jul (197-1,345 ft).	Presumed Absent; Site is disturbed and developed by levees, but contains adjacent grassland communities potentially suitable for Veiny monardella. The nearest CNDDDB occurrence suppressed within the Yuba City quadrangle, the project quadrangle, within a 5 mile accuracy. Observance documented in 1858 and presumed extirpated. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
<i>Pseudobahia bahiifolia</i>	Hartweg's golden sunburst	Fed: CA: CNPS	E E 1B.1	An annual herb inhabiting clay, often acidic soils of Valley and Foothill Grassland, and Cismontane Woodland communities. Flowers Mar-Apr (49- 492 ft).	Presumed Absent; Site is disturbed and developed by levees, but contains adjacent grassland communities potentially suitable for Hartweg's golden sunburst. The nearest CNDDDB occurrence is within a 1 mile accuracy of the site. Observance was recorded in 1848 and noted as extirpated in 1982 due to levees. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
<i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Wright's trichocoronis	Fed: CA: CNPS:	-- -- 2.1	An annual herb inhabiting Meadows, Seeps, Marshes, Swamps, Riparian Forest and Vernal Pool (alkaline) communities. Flowers in May-Sep (16-1427 ft).	Presumed Absent; The site occurs within riparian habitat associated with the perennial lower Feather River required for Wright's trichocoronis. Focused surveys on 4/27/11 found no presence of the species; presumed absent.
Amphibian species					
<i>Ambystoma californiense</i>	California tiger salamander	Fed: CA: DFG:	T T SSC	Inhabits annual grasslands and the grassy understory of Valley-Foothill Hardwood communities. Requires underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Presumed Absent; The site occurs within riparian habitat associated with the perennial lower Feather River. Vernal pools and other seasonal waters not present onsite nor the preferred grassy understory of valley-foothill hardwood habitats; habitat unsuitable for California tiger salamander.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
		Fed:	CA:		
<i>Rana draytonii</i>	California red-legged frog	Fed: CA: DFG:	T -- SSC	Inhabits 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 and must have access to estivation habitat. Occurs from elevations near sea level to 5,200 ft.	Presumed Absent; The site occurs within riparian habitat associated with the perennial lower Feather River and has a small portion of emergent wetland vegetation onsite. However, CNDDDB records show the closest species occurrence at 31.5 miles and no occurrences have been sighted on the Feather River. Connectivity of suitable habitat is poor between the project site and prior occurrences.
Avian species					
<i>Agelaius tricolor</i>	Tricolored blackbird	Fed: CA: DFG:	-- -- SSC	Inhabits Freshwater Marsh, Swamp and Wetland communities that can support large colonies often in the Central Valley area. Requires protected dense nesting habitat, preferably in emergent wetland vegetation and foraging area with insect prey in close proximity to colony.	Presumed Absent; The site occurs within riparian habitats associated with the lower Feather River. Emergent wetland vegetation is not adequate for colony nesting. Nearest CNDDDB occurrence is 2.5 miles from project location; habitat unsuitable for tricolored blackbird.
<i>Athene cunicularia</i>	Burrowing owl	Fed: CA: DFG:	-- -- SSC	Species inhabits arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Requires friable soils for burrow construction (Below 5300 ft).	Presumed Absent; Project site has maintained grassland and open levee areas. No good foraging habitat for burrowing owl is present. CNDDDB occurrence is 9.5 miles from project location and was last recorded in 1906.
<i>Buteo swainsoni</i>	Swainson's hawk	Fed: CA:	-- T	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August.	Low to Moderate; Project transects the lower Feather River and site is adjacent to riparian vegetation and grassland potentially suitable for Swainson's hawk nesting and foraging. Nearest CNDDDB occurrence is 2 miles from project location.
<i>Circus cyaneus</i>	Northern harrier	Fed: CA: DFG:	-- -- SSC	Inhabits meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Permanent resident of the northeastern plateau and coastal areas; less common resident of the Central Valley. Nests on ground in shrubby vegetation, usually at marsh edge. Breeds Apr-Sep.	Low to Moderate; Project site lacks preferred marsh and meadow vegetation but transects the lower Feather River. Site is adjacent to riparian vegetation and grassland potentially suitable for northern harrier nesting and foraging. Nearest CNDDDB occurrence is 10 miles from project location.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
		Fed:	CA:		
<i>Coccyzus americanus occidentalis</i>	Western yellow-billed cuckoo	Fed:	C	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds Jun- Aug.	Presumed Absent; Project transects the lower Feather River and site is adjacent to riparian vegetation, but the current adjacent riparian corridor is disturbed and lacks the density required for the western yellow-billed cuckoo nesting; habitat unsuitable. The nearest CNDDDB occurrence is within a 1 mile accuracy of the site.
<i>Elanus leucurus</i>	White-tailed kite	Fed: CA: DFG:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Breeds Feb- Oct.	High; Project transects the lower Feather River and site is adjacent to riparian vegetation and grassland potentially suitable for white-tailed kite nesting, perching and foraging. Nearest CNDDDB occurrence 5 miles from project location.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	Fed: CA: DFG:	-- T FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marsh adjacent to bays. Species is dependent upon upper zones of saline emergent wetlands, especially with pickleweed, and brackish fresh emergent wetlands. In freshwater habitats often found in bulrushes, cattails, and saltgrass vegetation. Breeds Mar-Jun.	Presumed Absent; The site occurs within riparian habitat associated with the lower Feather River and lacks the emergent, herbaceous wetland vegetation for the species. Nearest CNDDDB occurrence 8 miles from project location; habitat unsuitable for California black rail.
<i>Riparia riparia</i>	Bank swallow	Fed: CA:	-- T	A migratory colonial nester inhabiting lowland and riparian habitats west of the desert during spring - fall. Majority of current breeding populations occur along the Sacramento and Feather rivers in the north Central Valley. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes or the ocean. Breeds May-Jul.	Presumed Absent; Although project transects the lower Feather River, site lacks adequate the vertical banks or cliffs required for bank swallow nesting; habitat unsuitable. Nearest CNDDDB occurrence 1.5 miles from project location.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Fish species					
<i>Acipenser medirostris</i>	Green sturgeon	Fed: CA: DFG	T -- SSC	Most marine of the sturgeon species. Currently believed to only spawn in the Sacramento River, Rogue River, Klamath and Trinity Rivers (Klamath River basin) to spawn. Known to occupy other river bodies including the lower Feather River; spawning not recorded. Large cobbles preferred for spawning, but may utilize a range of substrates from bedrock to sand. Spawning occurs Mar-Jul.	High; Project transects the lower Feather River, a water body listed within the Final Critical Habitat for the Southern DPS of Green sturgeon.
<i>Hypomesus transpacificus</i>	Delta smelt	Fed: CA:	T E	Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.	Presumed Absent; Project transects the lower Feather River, a freshwater body not within the Sacramento-San Joaquin Delta, Suisun Bay, Carquinez Strait or San Pablo Bay; habitat unsuitable for Delta smelt.
<i>Oncorhynchus mykiss</i>	Central Valley steelhead	Fed: CA:	T --	Spawning occurs in small tributaries on coarse gravel beds in riffle areas. Central Valley steelhead are found in the Sacramento River system; the principal remaining wild populations spawn annually in Deer and Mill Creeks in Tehama County, in the lower Yuba River, a small population in the lower Stanislaus River and, though potentially extirpated, from the San Joaquin basin.	High; Project transects the lower Feather River, a water body below the Oroville dam, within the Sacramento River system and within Critical Habitat for the California Central Valley Steelhead, Marysville Hydrologic Unit.
<i>Oncorhynchus tshawytscha</i>	Central Valley spring-run chinook salmon	Fed: CA:	T T	Spring-run Chinook enter the Sacramento-San Joaquin River system to spawn, requiring larger gravel particle size and more water flow through their redds than other salmonids. Remaining runs occur in Butte, Mill, Deer, Antelope, and Beegum Creeks, tributaries to the Sacramento River. Known to occur in Siskiyou and Trinity counties.	High; Project transects the lower Feather River, a water body below the Oroville dam, within the Sacramento River system and within Critical Habitat for the Central Valley Spring-run Chinook Salmon, Marysville Hydrologic Unit.
<i>Oncorhynchus tshawytscha</i>	Winter-run chinook salmon, Sacramento River	Fed: CA:	E E	Winter-run Chinook are currently restricted within the Sacramento River below Keswick dam; species does not spawn in tributaries. Species requires cold water over gravel beds to spawn.	Presumed Absent; Project is not located within the Sacramento River, as it transects the lower Feather River; habitat unsuitable for Sacramento River Winter-run chinook salmon.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
		Fed:	CA:		
Invertebrate species					
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	Fed:	T	Endemic to the grasslands of the Central Valley, Central Coast mountains and South Coast Mountains, in astatic rain-filled pools. Inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. Species is dependent on seasonal fluctuations.	Presumed Absent; The site transects the lower Feather River and does not contain vernal sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools required for vernal pool fairy shrimp; habitat unsuitable. The nearest CNDDDB occurrence is 7.5 miles from the site.
<i>Desmocerus californicus dimorphus</i>	Valley elderberry longhorn beetle	Fed:	T	Requires elderberry shrubs (<i>Sambucus</i> sp.) as host plants. Typically in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. Prefers elderberries 2-8 inches in diameter; some preference toward 'stressed' elderberries.	High; The site transects the lower Feather River within a riparian corridor. Focused surveys on 4/27/11 and 7/19/11 found presence of required elderberry shrubs. The nearest CNDDDB occurrence is 8 miles from the site.
<i>Lepidurus packardii</i>	Vernal pool tadpole shrimp	Fed:	E	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	Presumed Absent; The site transects the lower Feather River and does not contain vernal pools and swales required for vernal pool tadpole shrimp; habitat unsuitable. The nearest CNDDDB occurrence is 4 miles from site.
<i>Linderiella occidentalis</i>	California linderiella	Fed: CA: DFG:	-- -- SSI	Inhabits seasonal vernal pools in unplowed grasslands with old alluvial soils underlain by hardpan or sandstone depressions. Requires low alkaline, low conductivity and low total dissolved solids (TDS) in vernal pool water.	Presumed Absent; The site transects the lower Feather River and does not contain vernal pools required for vernal pool tadpole shrimp; habitat unsuitable. The nearest CNDDDB occurrence is 4 miles from site.
Reptile species					
<i>Emys marmorata</i>	Western pond turtle	Fed: CA: DFG:	-- -- SSC	A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable (sandy banks or grassy open field) upland habitat for reproduction. Occurs below 4690ft.	Low to Moderate; The site transects the lower Feather River and contains riverside aquatic vegetation, grassy banks for basking sites and potentially suitable upland habitat for reproduction. The nearest CNDDDB occurrence is 7 miles from site.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence and Rationale
<i>Thamnophis gigas</i>	Giant garter snake	Fed: CA:	T T	Presumed Absent; The site transects the lower Feather River and contains grassy banks and openings in waterside vegetation for basking sites preferred by the species. However, Emergent, herbaceous wetland vegetation onsite is not adequate for species; habitat unsuitable for giant garter snake. The nearest CNDDDB occurrence is suppressed within the Gilsizer Slough quadrangle, 1.5 miles from the project location.

<p>Federal Designations (Fed): (FESA, USFWS) C: Federal candidate D: Federally delisted E: Federally listed, endangered T: Federally listed, threatened</p>	<p>State Designations (CA): (CESA, CDFG) E: State-listed, endangered T: State-listed, threatened</p>
<p>Other Designations DFG_WL: DFG Watch List DFG_SSC: DFG Species of Special Concern DFG_SSI: DFG Special Status Invertebrate DFG_FP: DFG Fully Protected</p> <p>California Native Plant Society Designations: <i>*Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the CFG Code. This interpretation is inconsistent with other definitions.</i> 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 about which need more information; a review list. 4: Plants of limited distribution; a watch list.</p> <p>Plants 1B, 2, and 4 extension meanings: _1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) _2 Fairly endangered in California (20-80% occurrences threatened) _3 Not very endangered in California (<20% of occurrences threatened or no current threats known)</p>	
<p>Potential for Occurrence Criteria: Present: Species was observed on site during a site visit or focused survey. High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 miles of the site. Low-Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 miles of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search. Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.</p>	
<p>Source: (USFWS 2011), (CNDDDB 2011), (CNPS 2011), (Zeiner 1988-1990), (NMFS 2011)</p>	