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
Vanilla-grass *Anthoxanthum nitens* ssp. *nitens*	–	–	2B.3	Meadows and seeps. Wet sites. 10–6,220 feet in elevation. Blooms April–July. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Klamath manzanita *Arctostaphylos klamathensis*	–	–	1B.2	Rocky outcrops and slopes, sometimes on serpentine. 4,690–7,380 feet in elevation. Blooms May–August. Perennial.	*May occur*. Rocky outcrop and serpentine habitat potentially suitable for this species is present in the project area.
Woolly balsamroot *Balsamorhiza lanata*	–	–	1B.2	Open woods, grassy slopes. Volcanic substrates. 2,625–6,220 feet in elevation. Blooms April–June. Perennial.	*May occur*. Open wood and grassy slope with volcanic substate habitat potentially suitable for this species is present in the project area. There is a documented occurrence in the general vicinity of the project area from 1998 (CNDDB 2022).
Silky balsamroot *Balsamorhiza sericea*	–	–	1B.3	Lower montane coniferous forest. Collections from Douglas fir forest and Jeffrey pine forest. Serpentine outcrops, rocky slopes. 2,790–6,990 feet in elevation. Blooms April–July. Perennial.	*May occur*. Lower montane coniferous forest, rocky slopes, and serpentine habitat potentially suitable for this species is present in the project area.
Scalloped moonwort *Botrychium crenulatum*	–	–	2B.2	Moist meadows, freshwater marsh, and near creeks. 3,890–10,210 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wet meadow, freshwater marsh, and near creek habitat potentially suitable for this species is present in the project area.
Mingan moonwort *Botrychium minganense*	–	–	2B.2	Creekbanks in mixed conifer forest. 3,900–10,810 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Mixed conifer and creekbank habitat potentially suitable for this species is present in the project area.
Western goblin *Botrychium montanum*	–	–	2B.1	Lower and upper montane coniferous forest, shady conifer woodland, especially under *Calocedrus* along streams. Meadows and seeps. 4,690–7,970 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Coniferous forest and wetland habitat potentially suitable for this species is present in the project area.
Northwestern moonwort *Botrychium pinnatum*	–	–	2B.3	Creekbanks, and meadows and seeps. 5,400–6,710 feet in elevation. Blooms July–October. Geophyte.	*May occur*. Creek and wetland habitat potentially suitable for this species is present in the project area.
Pumice moonwort *Botrychium pumicola*	–	–	2B.2	Alpine boulder and rock field, subalpine coniferous forest. 8,860–9,020 feet in elevation. Blooms July–September. Geophyte.	*Not expected to occur*. Project area is out elevation range for this species.
Rattlesnake fern *Botrypus virginianus*	–	–	2B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, riparian forest. 2,340–4,450 feet in elevation. Blooms June–September. Perennial.	*May occur*. Lower montane coniferous forest, riparian forest, and wetland habitat potentially suitable for this species is present in the project area. This species has a documented occurrence less than one mile south of the project area (CCH2 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Castle Crags harebell *Campanula shetleri*	–	–	1B.3	In protected rock crevices in granite. 4,000–6,010 feet in elevation. Blooms June–September. Geophyte.	*Not expected to occur*. This species is endemic to Castle Crags, which is located south of the project area.
Wilkin's harebell *Campanula wilkinsiana*	–	–	1B.2	Often on streambanks in meadows. 4,170–8,530 feet in elevation. Blooms July–September. Geophyte.	*May occur*. Creek and meadow habitat potentially suitable for this species is present in the project area.
Green yellow sedge *Carex viridula* ssp. *viridula*	–	–	2B.3	Mesic sites. 0–5,600 feet in elevation. Blooms July–September. Perennial.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Shasta chaenactis *Chaenactis suffrutescens*	–	–	1B.3	Sandy or serpentine soils. 2,460–9,190 feet in elevation. Blooms May–September. Perennial.	*Known to occur*. Sandy and serpentine soils potentially suitable for this species is present in the project area. This species has a documented occurrence from 2012 in the southwestern piece of the project area, located at the headwaters of the Sacramento River at Lake Siskiyou (CNDDB 2022).
Pallid bird's-beak *Cordylanthus tenuis* ssp. *pallescens*	–	–	1B.2	Gravelly openings in brush patches next to coniferous forest; on volcanic alluvium. 3,510–5,300 feet in elevation. Blooms July–September. Annual.	*Known to occur*. Gravelly volcanic alluvium soils potentially suitable for this species are present in the project area. This species has a documented occurrence from 1995 in the midsection of the project area, located along Old Stage Rd (CNDDB 2022).
Jepson's dodder *Cuscuta jepsonii*	–	–	1B.2	North coast coniferous forest. Streamsides. 400–9,010 feet in elevation. Blooms July–September. Annual.	*May occur*. Coniferous forest and streambank habitat potentially suitable for this species is present in the project area.
Golden alpine draba *Draba aureola*	–	–	1B.3	On serpentine or volcanic outcrops. 7,000–10,010 feet in elevation. Blooms July–August. Perennial.	*Not expected to occur*. Project area is out elevation range for this species.
Mt. Eddy draba *Draba carnosula*	–	–	1B.3	Subalpine and upper montane coniferous forest. On talus or small boulder-fields; known from both serpentine and granite. 6,340–9,850 feet in elevation. Blooms June–August. Perennial.	*May occur*. Coniferous forest and serpentine habitat potentially suitable for this species is present in the project area.
Yellow willowherb *Epilobium luteum*	–	–	2B.3	Along streams and in seeps. 5,180–7,220 feet in elevation. Blooms July–September. Perennial.	*May occur*. Stream and seep habitat potentially suitable for this species is present in the project area.
Oregon fireweed *Epilobium oreganum*	–	–	1B.2	In and near springs and bogs; at least sometimes on serpentine. 1,640–7,350 feet in elevation. Blooms June–September. Perennial.	*Known to occur*. Wetland habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence from 1914 in the northern section of the project area, east of Mills Meadow and adjacent of the railroad (CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Siskiyou fireweed *Epilobium siskiyouense*	–	–	1B.3	On slopes in gravelly, serpentine soils. 5,490–8,010 feet in elevation. Blooms July–September. Perennial.	*May occur*. Gravelly, serpentine soil habitat potentially suitable for this species is present in the project area.
Waldo daisy *Erigeron bloomeri* var. *nudatus*	–	–	2B.3	In open areas on dry rocky outcrops on serpentine. 2,390–5,710 feet in elevation. Blooms May–July. Perennial.	*May occur*. Open areas on dry rocky outcrops on serpentine soil habitat potentially suitable for this species is present in the project area.
Snow fleabane daisy *Erigeron nivalis*	–	–	2B.3	On volcanic rock outcrops in cracks and crevices. 5,690–9,520 feet in elevation. Blooms July–August. Perennial.	*May occur*. Volcanic outcrop habitat potentially suitable for this species is present in the project area.
Trinity buckwheat *Eriogonum alpinum*	–	SE	1B.2	Rocky soils and scree slopes in open and windswept areas on serpentine substrate. 6,530–8,610 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Serpentine soil habitat potentially suitable for this species is present in the project area.
Pyrola-leaved buckwheat *Eriogonum pyrolifolium* var. *pyrolifolium*	–	–	2B.3	Sandy or gravelly sites; on pumice. 5,490–10,500 feet in elevation. Blooms June–September. Perennial.	*May occur*. Sandy and gravelly pumice habitat potentially suitable for this species is present in the project area.
Shasta limestone monkeyflower *Erythranthe taylorii*	–	–	1B.1	Openings, carbonate crevices and rocky outcrops. 1,060–3,410 feet in elevation. Blooms March–June. Annual.	*May occur*. Rocky outcrop and carbonate habitat potentially suitable for this species is present in the project area.
Pink-margined monkeyflower *Erythranthe trinitiensis*	–	–	1B.3	Meadows and seeps, lower and upper coniferous forest. Often on serpentine and roadsides. 4,490–6,400 feet in elevation. Blooms May–July. Annual.	*May occur*. Coniferous, wetland, serpentine, and roadside habitat potentially suitable for this species is present in the project area.
Klamath fawn lily *Erythronium klamathense*	–	–	2B.2	Upper montane coniferous forest, meadows and seeps. 3,940–6,070 feet in elevation. Blooms April–July. Geophyte.	*May occur*. Coniferous, wetland, and grassland habitat potentially suitable for this species is present in the project area.
Coast fawn lily *Erythronium revolutum*	–	–	2B.2	Mesic sites; streambanks. 190–4,610 feet in elevation. Blooms March–July. Geophyte.	*May occur*. Wetland and streambank habitat potentially suitable for this species is present in the project area.
Subalpine aster *Eurybia merita*	–	–	2B.3	Upper montane coniferous forest. 4,260–6,570 feet in elevation. Blooms June–August. Perennial.	*Known to occur*. Coniferous forest habitat potentially suitable for this species is present in the project area. This species has a historical documented occurrence in the upper section of the project area from 1936 (CNDDB 2022).
Modoc green-gentian *Frasera albicaulis* var. *modocensis*	–	–	2B.3	Great Basin scrub, upper montane coniferous forest. Openings. 2,950–5,740 feet in elevation. Blooms May–July. Perennial.	*May occur*. Coniferous forest habitat potentially suitable for this species is present in the project area.
Gentner's fritillary *Fritillaria gentneri*	FE	–	1B.1	Open sites at edge of woodland or chaparral; sometimes on serpentine. 3,300–3,680 feet in elevation. Blooms April–May. Geophyte.	*May occur*. Woodland, chaparral, and serpentine habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Scott Mountain bedstraw *Galium serpenticum* ssp. *scotticum*	–	–	1B.2	Generally on north-facing slopes on serpentine in mixed conifer forest. 3,280–6,810 feet in elevation. Blooms April–September. Perennial.	*May occur*. Coniferous forest and serpentine habitat potentially suitable for this species is present in the project area.
Aleppo avens *Geum aleppicum*	–	–	2B.2	Great Basin scrub, lower montane coniferous forest. Meadows and seeps. 1,470–4,920 feet in elevation. Blooms June–August. Perennial.	*Known to occur*. Coniferous forest, grassland, and wetland habitat potentially suitable for this species is present in the project area. This species has a documented occurrence in the lower section of the project area from 2002 (CNDDB 2022).
Little hulsea *Hulsea nana*	–	–	2B.3	Rocky or gravelly sites; on volcanic substrates. 5,640–11,010 feet in elevation. Blooms June–August. Perennial.	*May occur*. Rocky or gravelly volcanic substrate habitat potentially suitable for this species is present in the project area.
Alkali hymenoxys *Hymenoxys lemmonii*	–	–	2B.2	Lower montane coniferous forest, Great Basin scrub. Meadows and seeps. Subalkaline soils. 2,640–9,010 feet in elevation. Blooms June–August. Perennial.	*May occur*. Conifer forest, wetlands, and subalkaline soil habitat potentially suitable for this species is present in the project area.
Castle Crags ivesia *Ivesia longibracteata*	–	–	1B.3	Lower montane coniferous forest. Crevices in granitic cliffs. 3,930–4,600 feet in elevation. Blooms June. Perennial.	*Not expected to occur*. This species is endemic to Castle Crags, which is located south of the project area.
Pickering's ivesia *Ivesia pickeringii*	–	–	1B.2	Lower montane coniferous forest and meadows and seeps. Mesic clay; usually serpentine seeps. 2,790–5,010 feet in elevation. Blooms May–September. Perennial.	*May occur*. Conifer forest, wetland, clay, and serpentine habitat potentially suitable for this species is present in the project area.
Dudley's rush *Juncus dudleyi*	–	–	2B.3	Wet areas in forest. 1,490–6,560 feet in elevation. Blooms June–September. Perennial.	*May occur*. Forest and wetland habitat potentially suitable for this species is present in the project area.
Peck's lomatium *Lomatium peckianum*	–	–	2B.2	Rocky slopes, flats, and sometimes grassy openings, in yellow pine-black oak woodland, on volcanic soils. 2,240–3,870 feet in elevation. Blooms April–June. Perennial.	*May occur*. Rocky slopes, yellow pine, and black oak woodland habitat potentially suitable for this species is present in the project area.
Broad-nerved hump moss *Meesia uliginosa*	–	–	2B.2	Often found on the edge of fens or raised above the fen on hummocks/shrub bases. Bogs, meadows, and seeps in subalpine coniferous forest or upper montane coniferous forest. 3,590–9,210 feet in elevation. Blooms July–October. Perennial.	*May occur*. Upper montane coniferous forest and wetlands habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Woodnymph *Moneses uniflora*	–	–	2B.2	Broadleafed upland forest, North coast coniferous forest. 330–3,6010 feet in elevation. Blooms May–August. Geophyte.	*May occur*. Broadleafed upland forest habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Northern adder's-tongue *Ophioglossum pusillum*	–	–	2B.2	Marsh edges, low pastures, grassy roadside ditches. Also described as in "open swamp." 3,560–6,350 feet in elevation. Blooms July. Geophyte.	*May occur*. Wetland, pasture, and roadside habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Brittle prickly-pear *Opuntia fragilis*	–	–	2B.1	Pinyon and juniper woodland. Volcanic soils. 2,690–2,890 feet in elevation. Blooms April–July. Perennial.	*May occur*. Juniper woodland and volcanic soil habitat potentially suitable for this species is present in the project area.
Rosy orthocarpus *Orthocarpus bracteosus*	–	–	2B.1	Wetland Meadows and seeps. 3,280–6,570 feet in elevation. Blooms June–September. Annual.	*May occur*. Wetland meadows and seep habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Shasta orthocarpus *Orthocarpus pachystachyus*	–	–	1B.1	Meadows and seeps. Valley and foothill grassland. Openings in sagebrush scrub. 2,740–5,010 feet in elevation. Blooms May–June. Annual.	*May occur*. Wetland and grassland habitat potentially suitable for this species is present in the project area.
Cascade grass-of-Parnassus *Parnassia cirrata* var. *intermedia*	–	–	2B.2	Meadows and seeps, bogs and fens. Rocky serpentine soil. 2,540–6,560 feet in elevation. Blooms August–September. Perennial.	*May occur*. Wetland and serpentine habitat potentially suitable for this species is present in the project area.
Cooke's phacelia *Phacelia cookei*	–	–	1B.1	Great Basin scrub and lower montane coniferous forest. Sandy volcanic soil. 3,590–5,580 feet in elevation. Blooms May–August. Annual.	*May occur*. Conifer forest and sandy volcanic soil habitat potentially suitable for this species is present in the project area.
Scott Valley phacelia *Phacelia greenei*	–	–	1B.2	Closed-cone coniferous forest, lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest. Serpentinite. 2,790–7,810 feet in elevation. Blooms April–July. Annual.	*May occur*. Conifer forest and serpentine habitat potentially suitable for this species is present in the project area.
Siskiyou phacelia *Phacelia leonis*	–	–	1B.3	Meadows and seeps, sandy flats, slopes, conifer forest, sometimes on serpentine. 3,930–6,560 feet in elevation. Blooms June–August. Annual.	*May occur*. Wetland, conifer forest, and serpentine habitat potentially suitable for this species is present in the project area
Blue alpine phacelia *Phacelia sericea* var. *ciliosa*	–	–	2B.2	Among rocks on ridgetops, peaks, and at the base of cliffs. 6,900–8,500 feet in elevation. Blooms June–August. Perennial.	*Not expected to occur*. Project area is out of elevation range for this species.
Horned butterwort *Pinguicula macroceras*	–	–	2B.2	Meadow edges, seepage areas. Serpentine soil. 60–6,010 feet in elevation. Blooms April–July. Perennial.	*May occur*. Wetland and serpentine habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Mt. Eddy sky pilot *Polemonium eddyense*	–	–	1B.2	Serpentinite or peridotite, rocky. 8,130–9,030 feet in elevation. Blooms June–August. Perennial.	*Not expected to occur*. Project area is out of elevation range for this species.
Mt. Shasta sky pilot *Polemonium pulcherrimum* var. *shastense*	–	–	1B.2	Sometimes volcanic. 7,130–12,800 feet in elevation. Blooms June–September. Perennial.	*Not expected to occur*. Project area is out of elevation range for this species.
White-stemmed pondweed *Potamogeton praelongus*	–	–	2B.3	Deep water, lakes. 5,900–9,850 feet in elevation. Blooms July–August. Geophyte.	*May occur*. Lake and pond habitat potentially suitable for this species is present in the project area.
Crested potentilla *Potentilla cristae*	–	–	1B.3	Seasonally wet swales and seeps; gravelly or rocky sites; often on serpentine. 5,900–9,190 feet in elevation. Blooms June–September. Perennial.	*May occur*. Wetland, rocky, and serpentine habitat potentially suitable for this species is present in the project area.
Showy raillardella *Raillardella pringlei*	–	–	1B.2	Streambanks, wet meadows and bogs in areas of serpentinized rock. 3,930–7,520 feet in elevation. Blooms July–October. Geophyte.	*May occur*. Streambank, wetland, and serpentine habitat potentially suitable for this species is present in the project area.
Gasquet rose *Rosa gymnocarpa* var. *serpentina*	–	–	1B.3	Chaparral, Cismonte woodland. Serpentinite. Often on roadsides, sometime on ridges, streambanks, and in openings. 1,190–7,320 feet in elevation. Blooms April–July. Geophyte.	*Known to occur*. Serpentine habitat potentially suitable for this species is present in the project area. This species has a documented occurrence in the midwestern section of the project area, directly north of Pine Grove Drive, from 1912 (CCH2 2022).
Scott Mountain sandwort *Sabulina stolonifera* (synonym: *Minuartia stolonifera*)	–	–	1B.3	Lower montane coniferous forest. Serpentine soils, Jeffrey pine forest. 4,100–4,600 feet in elevation. Blooms May–August. Perennial.	*May occur*. Conifer forest and serpentine habitat potentially suitable for this species is present in the project area.
Water bulrush *Schoenoplectus subterminalis*	–	–	2B.3	Bogs and fens. Marshes and swamps (montane lake margins). 2,460–7,390 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Marsh skullcap *Scutellaria galericulata*	–	–	2B.2	Swamps and wet places. 0–6,400 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area. Historical records show a known occurrence in the general vicinity of the project area (CNDDB 2022).
Cascade stonecrop *Sedum divergens*	–	–	2B.3	Sunny dry gravelly flats, rocky slopes, ledges. 5,000–7,670 feet in elevation. Blooms July–September. Perennial.	*May occur*. Rocky outcrop and gravelly flat habitat potentially suitable for this species is present in the project area.
Canadian buffalo-berry *Shepherdia canadensis*	–	–	2B.1	Rocky streamsides, on serpentine. 4,240–5,680 feet in elevation. Blooms April–July. Perennial.	*May occur*. Streamside serpentine habitat potentially suitable for this species is present in the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	CRPR	Habitat	Potential for Occurrence
Cascade alpine campion *Silene suksdorfii*	–	–	2B.3	Rocky, volcanic soils. 7,720–10,210 feet in elevation. Blooms July–September. Perennial.	*Not expected to occur*. Project area is out of elevation range for this species.
Hairy marsh hedge-nettle *Stachys pilosa*	–	–	2B.3	Mesic sites. 2,570–6,710 feet in elevation. Blooms June–September. Geophyte.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Cylindrical trichodon *Trichodon cylindricus*	–	–	2B.2	Moss growing in openings on sandy or clay soils on roadsides, stream banks, trails, or in fields. 160–4,920 feet in elevation. Perennial.	*May occur*. Stream, roadside, and field habitat potentially suitable for this species is present in the project area.
Siskiyou clover *Trifolium siskiyouense*	–	–	1B.1	Meadows and seeps. Mesic sites. 2,890–4,930 feet in elevation. Blooms June–July. Perennial.	*May occur*. Wetland habitat potentially suitable for this species is present in the project area.
Henderson's triteleia *Triteleia hendersonii*	–	–	2B.2	Open slopes and road banks. 2,500–4,000 feet in elevation. Blooms May–July. Geophyte.	*May occur*. Open slope and road bank habitat potentially suitable for this species is present in the project area.
Little-leaved huckleberry *Vaccinium scoparium*	–	–	2B.2	Rocky, subalpine woods. Sometimes serpentine. 4,000–7,220 feet in elevation. Blooms June–August. Perennial.	*May occur*. Rocky, woodland, and serpentine 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)

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: CCH2 2022; CNDDB 2022, CNPS 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				
Cascades frog *Rana cascadae*	–	SC SSC	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows or open coniferous forests. Standing water required for reproduction. Hibernates in mud on the bottom of lakes and ponds during the winter. Closely associated (typically found within a few meters) with water.	*Known to occur*. There are several documented occurrences of Cascades frog in the project area, including historic occurrence (i.e., 1930's to 1950's) and recent occurrence (i.e., 2011; CNDDB 2022). Habitat potentially suitable for Cascades frog is present in the project area within lakes, streams, ponds, and meadows.
Foothill yellow-legged frog *Rana boylii*	–	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.	*Known to occur*. There are several documented occurrences of foothill yellow-legged frog near Siskiyou Lake and along the Sacramento River (CNDDB 2022). Habitat potentially suitable for this species is present within streams in the project area.
Oregon spotted frog *Rana pretiosa*	FT	SSC	Low swampy areas in mountainous woodlands and wet meadows, springs, small cold streams and lakes in northeastern California. Standing water needed for breeding.	Not expected to occur. The project area is outside of the range of this species.
Pacific tailed frog *Ascaphus truei*	–	SSC	Occurs in montane hardwood-conifer, redwood, Douglas-fir and ponderosa pine habitats. Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	*May occur*. The project area contains perennial stream habitat that may provide habitat suitable for Pacific tailed frog.
Southern long-toed salamander *Ambystoma macrodactylum sigillatum*	–	SSC	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks, usually within approximately 330 feet (100 meters) of aquatic habitat.	*May occur*. Habitat potentially suitable for southern long-toed salamander is present in the project area within meadows, lakes, and other wet areas (e.g., some creeks, wetlands).
Western pond turtle *Emys marmorata*	–	SSC	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 approximately 1,600 feet (0.5 km) from water for egg-laying.	*Known to occur*. Several western pond turtles were observed within a pond at the Larry Wehmeyer Environmental Education Area on North Shore Road during the reconnaissance-level survey for biological resources on March 22, 2022. Habitat potentially suitable for this species is present in the project area in ponds, lakes, and streams.
Birds				
American peregrine falcon *Falco peregrinus anatum*	FD	SD FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	*May occur*. Habitat potentially suitable for American peregrine falcon (e.g., cliffs, human-made structures) are present within the project area.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Bald eagle *Haliaeetus leucocephalus*	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.	*May occur*. There is a documented bald eagle nesting occurrence approximately 2 miles west of Siskiyou Lake (CNDDB 2022). Habitat potentially suitable for this species is present in conifer forest habitat near Lake Siskiyou.
Bank swallow *Riparia riparia*	–	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	*Known to occur*. Nesting bank swallows have been documented adjacent to Siskiyou Lake (CNDDB 2022). Habitat potentially suitable for bank swallows in the project area is likely limited to banks along Siskiyou Lake.
Black swift *Cypseloides niger*	–	SSC	Coastal belt of Santa Cruz and Monterey Co; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely	Not expected to occur. Black swifts may forage on the project area; however, nesting habitat (i.e., cliffs behind waterfalls) suitable for the species is not present in the project area.
Greater sandhill crane *Antigone canadensis tabida*	–	ST FP	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4-mile of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	*Known to occur*. Several sandhill cranes were observed within meadow habitat during the reconnaissance-level survey for biological resources on March 21, March 22, and March 23, 2022. Habitat potentially suitable for this species is present in meadows throughout the project area.
Northern goshawk *Accipiter gentilis*	–	SSC	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	*May occur*. There are several documented occurrences of northern goshawk east of the project area near Mount Shasta (CNDDB 2022). Habitat potentially suitable for northern goshawk is present in conifer forest habitat in the project area.
Northern spotted owl *Strix occidentalis caurina*	FT	ST SSC	Occasionally in younger forests with patches of big trees. High, multistory canopy dominated by big trees, many trees with cavities or broken tops, woody debris and space under canopy.	*May occur*. There are several northern spotted owl activity centers and observations within Shasta-Trinity National Forest west of the project area; the closest of which are within approximately 0.6 mile of the project area (CNDDB 2022). Some forest habitats within the project area may provide nesting habitat suitable for northern spotted owls.
Swainson's hawk *Buteo swainsoni*	–	ST	Breeds in 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, or alfalfa or grain fields supporting rodent populations.	*May occur*. Nesting habitat potentially suitable for Swainson's hawk is present in the project area, especially within riparian areas and in wooded areas adjacent to meadows and pastures.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Tricolored blackbird *Agelaius tricolor*	–	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.	Not expected to occur. The project area is outside of the current range of this species.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. There is one historic (1951) occurrence of western yellow-billed cuckoo within the project area (CNDDB 2022). However, this species no longer occupied the majority of its historic range, and the project area is outside of the current range of western yellow-billed cuckoo.
Willow flycatcher *Empidonax traillii*	–	SE	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2,000-8,000 feet elevation Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	*Known to occur*. There are several documented detections of willow flycatchers in the project area (eBird 2022).
Yellow rail *Coturnicops noveboracensis*	–	SSC	Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	*Known to occur*. Yellow rail has been documented in the project area within wet meadow habitat near Wyehka Way (CNDDB 2022). Wet meadow and marsh habitat in the project area may provide habitat suitable for this species.
Fish				
Delta smelt *Hypomesus transpacificus*	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.
Longfin smelt *Spirinchus thaleichthys*	FC	ST SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not expected to occur. The project area is outside of the current range of this species.
Lost River sucker *Deltistes luxatus*	FE	SE FP	Native to the Lost River system in California and Oregon. Primarily a lake species found in fairly deep water. Adults run up tributary streams to spawn in the spring.	Not expected to occur. The project area is outside of the current range of this species.
Lower Klamath marbled sculpin *Cottus klamathensis polyporus*	–	SSC	Water with summer temperatures of 15-20 degrees C, in coarse substrates (i.e., cobble, gravel) where water velocities range from slow to swift, in streams with widths greater than 66 feet (20 m).	Not expected to occur. The project area is outside of the current range of this species.
Shortnose sucker *Chasmistes brevirostris*	FE	SE FP	Native to the Klamath and Lost River systems in California and Oregon. Spend most of year in open waters of large lakes. They feed on plankton. Spawn in tributary streams.	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				
Franklin's bumble bee *Bombus franklini*	FE	SC	Species has precipitously declined since 1998; found only in Southern Oregon and Northern California between the coast and Sierra-Cascade ranges.	*May occur*. The project area is within the current range of Franklin's bumble bee. The project area contains floral resources that may provide foraging opportunities for Franklin's bumble bees, as well as overwintering and breeding habitat.
Monarch - California overwintering population *Danaus plexippus* 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 (*Asclepias* 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.	*May occur*. 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.
Suckley's cuckoo bumble bee *Bombus suckleyi*	–	SC	Pacific coast from Alaska to far northern California, east to Nebraska. An inquiline (i.e., an animal that lives commensally in the nest, burrow, or dwelling place of an animal of another species) in the colonies of other bumble bees, especially western bumble bee. Adult food plant genera include *Aster*, *Centaurea*, *Cirsium*, *Trifolium*, *Chrysothamnus*, *Helichrysum*.	*May occur*. The project area contains floral resources that may provide foraging opportunities for Suckley's cuckoo bumble bees, as well as overwintering and breeding habitat.
Western bumble bee *Bombus occidentalis*	–	SC	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.	*Known to occur*. There are two historic (1938, 1960) occurrences of western bumble bee in the project area (CNDDB 2022). The project area contains floral resources that may provide foraging opportunities for western bumble bees, as well as overwintering and breeding habitat.
Mammals				
American badger *Taxidea taxus*	–	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.	*May occur*. Habitat potentially suitable for American badger is present throughout the project area within annual grassland, perennial grassland, chaparral, and open woodland and forest habitats.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
California wolverine *Gulo gulo*	–	ST FP	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats. Needs water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances.	Not expected to occur. While the project area is located within the historic range of this species, the only known wolverine in California occurs in Tahoe National Forest. The location of this known wolverine is a considerable distance from the project area, and this species is therefore unlikely to occur in the project area.
Fisher - West Coast DPS *Pekania pennanti*	–	SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	*Known to occur*. The project area overlaps the easternmost extent of the range of the fisher West Coast DPS. There are several contemporary (i.e., after 2000) occurrences of fisher within the project area (CNDDB 2022).
Gray wolf *Canis lupus*	**	SE	Habitat generalists, historically occupying diverse habitats including tundra, forests, grasslands, and deserts. Primary habitat requirements are the presence of adequate ungulate prey, water, and low human contact.	*May occur*. Contemporary sightings of gray wolves in California have included a pack in Siskiyou County (i.e., the Shasta Pack) and more recently (i.e., 2021), a potential breeding pair of wolves near Mount Shasta (CDFW 2021). Gray wolves have very large home ranges, which may include all or a portion of the project area.
Oregon snowshoe hare *Lepus americanus klamathensis*	–	SSC	Primarily found in montane riparian habitats with thickets of alders and willows, and in stands of young conifers interspersed with chaparral. Prefers edges, heterogeneous habitats, and areas with dense understory, particularly in riparian habitats. Also found in areas with young firs with branches drooping to ground, and in patches of ceanothus and manzanita within, or bordering, fir or pine forests.	*May occur*. Habitat potentially suitable for Oregon snowshoe hare is present throughout the project area within riparian areas, stands of young conifers, and chaparral habitats.
Pallid bat *Antrozous pallidus*	–	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.	*May occur*. Roost habitat (i.e., trees, crevices, buildings) potentially suitable for pallid bat is present throughout the project area.
Ringtail *Bassariscus astutus*	–	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations.	*May occur*. Habitat potentially suitable for ringtail is present throughout the project area within forests, shrubs, and riparian areas.
Sierra Nevada mountain beaver *Aplodontia rufa californica*	–	SSC	Dense growth of small deciduous trees and shrubs, wet soil, and abundance of forbs in the Sierra Nevada and east slope. Needs dense understory for food and cover. Burrows into soft soil. Needs abundant supply of water.	*May occur*. Habitat potentially suitable for Sierra Nevada mountain beaver may be present adjacent to streams that contain dense riparian vegetation and soft soils.

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence
Sierra Nevada red fox - southern Cascades DPS *Vulpes vulpes necator* pop. 1	–	ST	Use multiple habitat types in the alpine and subalpine zones including high-elevation conifer dominated by whitebark pine and mountain hemlock, as well as meadows and fell-fields. May descend in winter to below subalpine zone consisting of red and white fir; as low as 1,400 meters (4,600 feet).	Not expected to occur. There have been several historical (1890s–1980s) observations of this species in Siskiyou County (CNDDB 2022). While the project area is within the historical range of this species, only two small populations of Sierra Nevada red fox are currently known: one near Lassen Peak and one near Sonora Pass. This species is currently unlikely to occur in the project area.
Spotted bat *Euderma maculatum*	–	SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	*Known to occur*. Spotted bat has been detected in the project area (CNDDB 2022), and roost habitat potentially suitable for the species (e.g., rock crevices, caves) is present throughout the project area.
Townsend's big-eared bat *Corynorhinus townsendii*	–	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.	*May occur*. Roost habitat (i.e., caves, buildings) potentially suitable for Townsend's big-eared bat is present throughout the project area.
Western mastiff bat *Eumops perotis californicus*	–	SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	*May occur*. Roost habitat (i.e., crevices, cliffs, trees, buildings) potentially suitable for western mastiff bat is present throughout the project area.
Western red bat *Lasiurus blossevillii*	–	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.	*May occur*. Roost habitat (i.e., trees) potentially suitable for western red bat is present throughout the project area.

Notes: CNDDB = 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)
FD Federally Delisted
FP Proposed for Listing under the federal Endangered Species Act
FC Federal Candidate for Listing

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)
SC State Candidate for listing (legally protected)
SD State Delisted

Sources: CDFW 2021; CNDDB 2022; USFWS 2022