Attachment B

Biological Resources

VEGETATION AND HABITAT

Pursuant to SPR BIO-1, Ascent biologists conducted a data review of project-specific biological resources, including habitat and vegetation types, and special-status plants, special-status wildlife, and sensitive habitats (i.e., sensitive natural communities, wetlands) with potential to occur in the project area. The information used to determine the potential for biological resources to occur in the project area included the results of the SPR BIO-1 reconnaissance survey completed by Davey Resources Group on August 8, 2022, and a follow up survey conducted on portions of the Kountz parcel on November 29, 2023 and the Rominger and Golden Trout Crossing parcels on November 30, 2023 by Ascent. CAL FIRE Fire Resource and Assessment Program (FRAP) vegetation mapping was used to identify the habitat/vegetation types and the National Wetland Inventory (NWI) was used to identify aquatic habitats within the project area.

The project area is located within the Sierra Nevada and Sierra Nevada foothills ecoregions. The project area ranges in elevation from approximately 1,133 feet to 4,308 feet. Most of the project area is within the 2020 North Complex Fire footprint. Habitat types within the project area and total acreage of each type prior to the North Complex Fire are presented in Table B-1. Many of the mapped habitats provided below in Table B-1 are no longer present in the project area because they were burned by the wildfire; however, ecological restoration treatments are aimed at restoring the structure and species composition of vegetation types that existed before the North Complex Fire and it is expected these communities could re-establish in the project area.

Table B-1 Habitat Types in the Project Area

Habitat Type	Total Acreage
Forest/Woodland	
Douglas Fir	789.3
Sierran Mixed Conifer	994.3
Montane Hardwood-Conifer	517.6
Montane Hardwood	445.5
Ponderosa Pine	290.3
White Fir	16.8
Forest/Woodland Total	*3,053.8*
Shrub/Scrub	
Mixed Chaparral	63.2
Montane Chaparral	14.1
Shrub/Scrub Total	*77.3*
Herbaceous	
Annual Grassland	7.1
Herbaceous Total	*7.1*
Wetland/Riparian	
Freshwater Forested/Shrub Wetland	3.3
Riverine	39.3
Wetland/Riparian Total	*42.6*
Developed/Disturbed/Barren[1]	
Barren	18.5
Urban	0.2
Developed/Disturbed/Barren Total	*18.7*
All Habitat Types Total	**3,199.6**[2]

Source: CAL FIRE FRAP vegetation data and NWI data, compiled by Ascent in 2023.

[1] Most urban and barren habitats would not be targeted for treatment; however, due to the scale of the habitat mapping, some areas mapped as urban or barren may contain habitats that would be treated (e.g., forested areas close to urban development).

[2] Total acreage of habitats shown is higher than the value derived from the CAL FIRE FRAP vegetation data because this total includes acres for aquatic habitats derived from NWI and there is likely overlap in habitats between these two sources.

SPECIAL-STATUS SPECIES

A list of special-status plant and wildlife species with potential to occur in the project area was compiled by completing a review of the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California database records for the US Geological Survey (USGS) quadrangles containing and surrounding the project area (CNDDB 2023a; CNPS 2023); and Appendix BIO-3 (Table 5a, Table 5b, Table 18a, Table 18b, and Table 19) in the Program EIR (Volume II) for special-status plants and wildlife that could occur in the Sierra Nevada foothills and Sierra Nevada ecoregions. A list of sensitive natural communities with potential to occur in the project area was compiled by completing a CNDDB search of the USGS quadrangles containing and surrounding the project area (CNDDB 2023a) and reviewing Table 3.6-11 (pages 3.6-47 – 3.6-49) and Table 3.6-31 (pages 3.6-110 – 3.6-111) in the Program EIR (Volume II) for sensitive natural communities that could occur in the Sierra Nevada foothills and Sierra Nevada ecoregions in the habitat types mapped in the project area.

A biological resources reconnaissance survey was completed by Davey Resources Group on August 8, 2022, to identify and document sensitive resources (e.g., aquatic habitat, riparian habitat, sensitive natural communities, and potential habitat for special status-plants) and to assess the suitability of habitat in the project area for special-status plant and wildlife species.

Based on implementation of SPR BIO-1, including review of occurrence data, species ranges, habitat requirements for each species, results of reconnaissance-level surveys, and habitat present within the project area as assessed during reconnaissance surveys, a list of all species with potential to occur in the vicinity of the proposed project was assembled (Table B-2). Specific parcels within the project area where special-status plants have the potential to occur are identified in Table B-2 because the potential for special-status plants to occur is site specific. However, specific parcels within the project area are not identified for special-status wildlife because wildlife may move throughout the project area.

Special-Status Plants

In Table B-2, location references for special-status plants correspond to parcels identified in Figure 1 of the PSA/Addendum. Gabbro soils are similar to some serpentine soils in their chemical and mineralogical properties, and gabbro endemic plants are sometimes found on serpentine soils and serpentine endemic plants are sometimes found on gabbro soils. However, the factors affecting endemism and plant distributions on gabbro soils are poorly understood (Medeiros et al. 2015). Therefore, for purposes of this analysis, special-status plants identified as occurring in serpentine or gabbro soils are assumed to have the potential to occur in both habitats. SPR BIO-7 would apply to all treatment activities (other than manual tree planting), including maintenance treatments, and protocol-level surveys for special-status plants would be conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018, or current version) prior to implementing prescribed burning, mechanical treatment, and manual treatment in any habitat potentially suitable for special-status plants. If special-status plant species are found during implementation of SPR BIO-7, Mitigation Measure BIO-1a and/or Mitigation Measure BIO-1b would be required, and no-disturbance buffers would be established around the area occupied by special-status plants. For special-status plants that are not listed under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA), treatments may be conducted within occupied habitat if the potentially affected special-status plant species is a geophytic, stump-sprouting, or annual species, and the treatment can be conducted outside of the growing season (e.g., after it has completed its annual life cycle) or during the dormant season using only treatment activities that would not damage the stump, root system or other underground parts of special-status plants or destroy the seedbank.

Impacts on herbaceous annual species or geophytes would be avoided during treatment activities that do not kill or remove vegetation or disturb the soil (i.e., manual treatment, herbicide application, and prescribed burning) during the dormant season (i.e., when the plant has no aboveground living parts), which would typically occur after seed set and before germination. Typically, germination will occur after the first significant rainfall (approximately 0.5 inches), and cold snap, which generally occurs between October–December (Levine et. al 2008). The proposed control line areas for prescribed burning would need to be surveyed for special-status plants, including annual species, stump-

sprouting species, or geophyte species, prior to installing any control lines. Treatment activities that could potentially kill or remove seeds, stumps, and underground root structures (i.e., mechanical treatments) may result in impacts on these plant species even when dormant and would not be conducted without prior implementation of SPR BIO-7. If treatments that do not kill or remove vegetation or disturb the soil (e.g., manual treatments, herbicide application, and prescribed burning) cannot be completed in the dormant season and would be implemented during the growing period of annual and geophyte species, protocol surveys (per SPR BIO-7) and avoidance of any identified special-status plants (per Mitigation Measures BIO-1a and BIO-1b) must be implemented. The remaining special-status plant species that have potential to occur within the project area are perennial species, which cannot be avoided seasonally in the same manner as herbaceous annual species, stump sprouters, or geophytes; therefore, protocol-level surveys under SPR BIO-7 would be necessary to identify the perennial species prior to implementing treatment activities regardless of the timing of treatments.

Where protocol-level surveys are required (pursuant to SPR BIO-7) and special-status plants are identified during these surveys, Mitigation Measures BIO-1a or BIO-1b, depending on species status, would be implemented to avoid loss of and resultant significant impacts on, identified special-status plants. Pursuant to Mitigation Measures BIO-1a and BIO-1b, if special-status plants are identified during protocol-level surveys, a no-disturbance buffer of at least 50 feet would be established around the area occupied by the species within which prescribed burning, mechanical treatment, and manual treatment would not occur unless a qualified RPF or biologist determines, based on substantial evidence, that the species would benefit from the proposed treatment in the occupied habitat area. In the case of plants listed pursuant to ESA or CESA, the determination of beneficial effects would need to be made in consultation with the California Department of Fish and Wildlife (CDFW) and/or US Fish and Wildlife Service (USFWS), depending on species status. If treatments are determined to be beneficial and would be implemented in areas occupied by special-status plants, under the specific conditions described under Mitigation Measures BIO-1a and BIO-1b, additional impact minimization and avoidance measures or design alternatives to reduce impacts would be identified. An evaluation of the appropriate treatment design and frequency to maintain habitat function for special-status plants would be carried out by a qualified RPF or botanist. Therefore, habitat function for special-status plants would be maintained because treatment activities and maintenance treatments would be designed to ensure that treatments, including follow-up maintenance treatments, maintain habitat function for the special-status plant species present.

In addition, pursuant to SPR HYD-5, nontarget vegetation and special-status species would be protected from herbicides. Only hand application would occur (no aerial spraying). Only herbicides labeled for use in aquatic environments would be used when working in riparian habitats or other areas where there is a possibility the herbicide could come into direct contact with water. Only hand application of herbicides would be allowed in riparian habitats and only during low-flow periods or when seasonal streams are dry. No terrestrial or aquatic herbicides would be applied within Watercourse and Lake Protection Zones (WLPZs) of Class I and II watercourses.

Table B-2 Special-Status Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Area

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Plants					
Jepson's onion *Allium jepsonii*			1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. On serpentine soils in Sierra foothills, volcanic soil on Table Mountain. On slopes and flats; usually in an open area. 1,165–3,705 feet in elevation. Blooms April–August. Geophyte.	**May occur**. Serpentine and gabbro soils in woodland and conifer forest habitat potentially suitable for Jepson's onion may be present in Ameral, Kountz, Dahlmier, Will (Maynard Ranch), Lost Creek, and Lumpkin parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels with no suitable habitat.
Big-scale balsamroot *Balsamorhiza macrolepis*			1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 115–4,805 feet in elevation. Blooms March–June. Perennial.	**May occur**. Chaparral, grassland, and woodland habitat potentially suitable for big-scale balsamroot is present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Upswept moonwort *Botrychium ascendens*			2B.3	Lower montane coniferous forest, meadows, and seeps. Grassy fields, coniferous woods near springs, and creeks. 3,660–10,710 feet in elevation. Blooms July–August. Geophyte.	**May occur**. Creeks in conifer forest habitat potentially suitable for upswept moonwort are present in or immediately adjacent to Golden Trout Crossing, Dahlmier, Will (Maynard Ranch), Lumpkin Ridge, Rominger, and Cascade parcels. Seeps, springs, and creeks may be present in the Lost Creek parcel and may provide potentially suitable habitat for this species. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Scalloped moonwort *Botrychium crenulatum*			2B.2	Bogs and fens, meadows and seeps, upper montane coniferous forest, lower montane coniferous forest, marshes, and swamps. Moist meadows, freshwater marsh, and near creeks. 3,890–10,205 feet in elevation. Blooms June–September. Geophyte.	**May occur**. Creeks in conifer forest habitat potentially suitable for scalloped moonwort are present in or immediately adjacent to Golden Trout Crossing, Lost Creek, Will (Maynard Ranch), Lumpkin Ridge, Rominger, and Cascade parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Green shield-moss *Buxbaumia viridis*			2B.2	Lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest. Well-rotted logs and in peaty soil and humus. 3,200–7,220 feet in elevation. Perennial.	**May occur**. Rotted logs in conifer forest habitat potentially suitable for green shield-moss may be present in Bald Rock, Golden Trout Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), Lumpkin Ridge, Rominger, and Cascade parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Dissected-leaved toothwort *Cardamine pachystigma* var. *dissectifolia*			1B.2	Chaparral, lower montane coniferous forest. Serpentine outcrops and gravelly serpentine talus. 985–3,115 feet in elevation. Blooms February–May. Geophyte.	**May occur**. Serpentine habitat potentially suitable for dissected-leaved toothwort is present in Ameral Kountz, Lost Creek, Dahlmier, and Will (Maynard Ranch) parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Sierra arching sedge *Carex cyrtostachya*			1B.2	Lower montane coniferous forest, riparian forest, marshes and swamps, meadows, and seeps. Mesic sites. 1,985–4,560 feet in elevation. Blooms May–August. Perennial.	**May occur**. Riparian forest and seep habitat potentially suitable for Sierra arching sedge may be present in all of the project parcels. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Mud sedge *Carex limosa*			2B.2	Bogs and fens, lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest. In floating bogs and soggy meadows and edges of lakes. 4,495–9,155 feet in elevation. Blooms June–August. Geophyte.	Not expected to occur. The project area is outside of the elevation range of this species. No impact is anticipated.
Chaparral sedge *Carex xerophila*			1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentinite, gabbroic. 900–2,525 feet in elevation. Blooms March–June. Perennial.	**May occur**. Serpentine and gabbro soils in woodland and conifer forest habitat potentially suitable for chaparral sedge is present in Ameral, Dahlmier, and Kountz parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Pink creamsacs *Castilleja rubicundula* var. *rubicundula*			1B.2	Chaparral, cismontane woodland, meadows and seeps, valley, and foothill grassland. Openings in chaparral or grasslands. On serpentine. 65–3,000 feet in elevation. Blooms April–June. Annual.	**May occur**. Serpentine and gabbro soils in woodland, chaparral, and grassland habitat potentially suitable for pink creamsacs is present in Ameral, Kountz, Dahlmier, and Lost Creek parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
White-stemmed clarkia *Clarkia gracilis* ssp. *Albicaulis*			1B.2	Chaparral, cismontane woodland. Dry, grassy openings in chaparral or foothill woodland. Sometimes on serpentine. 690–3,610 feet in elevation. Blooms May–July. Annual.	**May occur**. Chaparral and woodland habitat potentially suitable for white-stemmed clarkia is present in Kennedy Woods, Speckert/Lake Madrone, Ameral, Kountz, Bald Rock, Golden Trout Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Mildred's clarkia *Clarkia mildrediae* ssp. *Mildrediae*			1B.3	Cismontane woodland, lower montane coniferous forest. On decomposed granite; sometimes on roadsides. 805–5,610 feet in elevation. Blooms May–August. Annual.	**May occur**. Woodland and conifer forest habitat with decomposed granite soils and roadsides potentially suitable for Mildred's clarkia may be present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Mosquin's clarkia *Clarkia mosquinii*			1B.1	Cismontane woodland, lower montane coniferous forest. Usually on steep, rocky cutbanks and slopes. 605–4,005 feet in elevation. Blooms May–July. Annual.	**May occur**. Woodland and conifer forest habitat potentially suitable for Mosquin's clarkia is present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Clifton's eremogone *Eremogone cliftonii*			1B.3	Lower montane coniferous forest, upper montane coniferous forest, chaparral. Openings; granitic substrates. 1,460–5,805 feet in elevation. Blooms April–September. Perennial.	**May occur**. Openings with granitic substrates in chaparral and conifer forest habitat potentially suitable for Clifton's eremogone may be present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Plumas rayless daisy *Erigeron lassenianus* var. *deficiens*			1B.3	Lower montane coniferous forest. Gravelly, open sites. Sometimes on serpentine; sometimes on disturbed sites. 4,445–6,510 feet in elevation. Blooms June–September. Perennial.	Not expected to occur. The project area is outside of the elevation range of this species. No impact is anticipated.
Ahart's buckwheat *Eriogonum umbellatum* var. *ahartii*			1B.2	Cismontane woodland, chaparral. Serpentinite. On slopes, in openings. 900–4,855 feet in elevation. Blooms June–September. Perennial.	**May occur**. Openings and serpentine and gabbro soils in chaparral and woodland habitat potentially suitable for Ahart's buckwheat may be present in Ameral, Kountz, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. There is a known occurrence of Ahart's buckwheat immediately adjacent to the northern Lumpkin Ridge parcel (CNDDB 2023a). Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine habitat for this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Fern-leaved monkeyflower *Erythranthe filicifolia*			1B.2	Chaparral, lower montane coniferous forest, meadows, and seeps. Usually slow-draining, seeps among exfoliating granitic slabs. 1,360–5,610 feet in elevation. Blooms April–June. Annual.	**May occur**. Seeps in chaparral and conifer forest habitat potentially suitable for fern-leaved monkeyflower may be present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Subalpine aster *Eurybia merita*			2B.3	Upper montane coniferous forest. 4,265–6,560 feet in elevation. Blooms July-August. Perennial.	Not expected to occur. Suitable upper montane coniferous forest habitat is not present in the project area and the project area is at the limit of the lower extent of the elevation range of this species. No impact is anticipated.
Minute pocket moss *Fissidens pauperculus*			1B.2	North coast coniferous (redwood) forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. Occurrences in Sierra Nevada conifer forests are on clay soils. 35–3,360 feet in elevation. Perennial.	**May occur**. Creeks in conifer forest habitat potentially suitable for minute pocket moss are present in or immediately adjacent to Kennedy Woods, Speckert/Lake Madrone, Ameral, Kountz, Bald Rock, Lost Creek, Dahlmier, and Will (Maynard Ranch) parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Caribou coffeeberry *Frangula purshiana* ssp. *ultramafica*			1B.2	Lower montane coniferous forest, upper montane coniferous forest, chaparral, meadows, and seeps. On serpentine. 2,380–6,005 feet in elevation. Blooms May–July. Perennial.	**May occur**. Serpentine and gabbro soils in seep, chaparral, and conifer forest habitat potentially suitable for Caribou coffeeberry may be present in Ameral, Kountz, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine habitat or are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Pine Hill flannelbush *Fremontodendron decumbens*	FE	SR	1B.2	Chaparral, cismontane woodland. Rocky ridges; gabbro or serpentine endemic; often among rocks and boulders. 1,395–2,510 feet in elevation. Blooms April–July. Perennial.	**May occur**. Serpentine and gabbro soils in chaparral and woodland habitat potentially suitable for Pine Hill flannelbush may be present in Ameral and Kountz, parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine or gabbro habitat or are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*			1B.2	Marshes and swamps (freshwater). Moist, freshwater-soaked river banks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0–510 feet in elevation. Blooms June–September. Geophyte.	Not expected to occur. The project area is outside of the elevation range of this species. No impact is anticipated.
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*			1B.1	Chaparral, valley and foothill grassland, cismontane woodland, vernal pools, meadows, and seeps. Vernally mesic sites. Sometimes on edges of vernal pools. 100–3,365 feet in elevation. Blooms March–June. Annual.	**May occur**. Seeps and mesic sites in chaparral, grassland, and woodland habitat potentially suitable for red bluff dwarf rush may be present in Kennedy Woods, Speckert/Lake Madrone, Ameral, Kountz, Bald Rock, Golden Trout Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Colusa layia *Layia septentrionalis*			1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Scattered colonies in fields and grassy slopes in sandy or serpentine soil. 50–3,610 feet in elevation. Blooms April–May. Annual.	**May occur**. Serpentine and sandy soils in chaparral, woodland, and grassland habitat potentially suitable for Colusa layia may be present in Speckert/Lake Madrone, Ameral, Kountz, Lost Creek, Bald Rock, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine or sandy habitat or are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Cantelow's lewisia *Lewisia cantelovii*			1B.2	Broadfleafed upland forest, lower montane coniferous forest, cismontane woodland, chaparral. Mesic rock outcrops and wet cliffs, usually in moss or clubmoss; on granitics or sometimes on serpentine. 1,085–4,495 feet in elevation. Blooms May–October. Perennial.	**May occur**. Mesic rock outcrops and wet cliffs in chaparral, woodland, and conifer forest habitat potentially suitable for Cantelow's lewisia may be present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Butte County meadowfoam *Limnanthes floccosa* ssp. *californica*	FE	SE	1B.1	Vernal pools, valley and foothill grassland, wetland. Wet or flowing drainages and depressions; often not in discrete vernal pools; soils are usually Redding clay with rocks. 150–3,050 feet in elevation. Blooms March–May. Annual.	**May occur**. Drainages or wetlands in grassland habitat potentially suitable for Butte County meadowfoam may be present in Speckert/Lake Madrone and Kountz parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable habitat or are outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Inundated bog-clubmoss *Lycopodiella inundata*			2B.2	Bogs and fens, lower montane coniferous forest, marshes, and swamps. Peat bogs, muddy depressions, pond margins. 150–4,020 feet in elevation. Blooms June–September. Geophyte.	**May occur**. Bogs or muddy depressions in conifer forest habitat potentially suitable for inundated bog-clubmoss may be present in all of the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Shevock's copper moss *Mielichhoferia shevockii*			1B.2	Cismontane woodland. Moss on metamorphic rocks containing heavy metals; mesic sites. On rocks along roads, in same habitat as *Mielichhoferia elongata*. 2,460–4,595 feet in elevation. Perennial.	**May occur**. Mesic sites or metamorphic rock in woodland habitat potentially suitable for Shevock's copper moss may be present in all of the project parcels except for Kennedy Woods. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcel is outside of the elevation range for this species. No impact to this species is anticipated on Kennedy Woods.
Veiny monardella *Monardella venosa*			1B.1	Valley and foothill grassland, cismontane woodland. In heavy clay; mostly with grassland associates. Rediscovered in 1992. 100–1,330 feet in elevation. Blooms May–July. Annual.	**May occur**. Clay soils in woodland habitat potentially suitable for veiny monardella may be present in the Kountz parcel. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Lewis Rose's ragwort *Packera eurycephala* var. *lewisrosei*			1B.2	Cismontane woodland, lower montane coniferous forest, chaparral. Steep slopes and canyons in serpentine soil, often along or near roads. 900–6,200 feet in elevation. Blooms March–July. Perennial.	**May occur**. Serpentine and gabbro soils in chaparral, woodland, and conifer forest habitat potentially suitable for Lewis Rose's ragwort may be present in Ameral, Kountz, Lost Creek, Dahlmier, and Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine or gabbro habitat for this species. No impact to this species is anticipated on the remaining project parcels.
Layne's ragwort *Packera layneae*	FT	SR	1B.2	Chaparral, cismontane woodland. Ultramafic soil (serpentine or gabbro); occasionally along streams. 655–3,560 feet in elevation. Blooms April–August. Perennial.	**May occur**. Serpentine and gabbro soils in chaparral and woodland habitat potentially suitable for Layne's ragwort are present in Ameral, Kountz, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine or gabbro habitat or are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Ahart's paronychia *Paronychia ahartii*			1B.1	Valley and foothill grassland, vernal pools, cismontane woodland. Stony, nearly barren clay of swales, and higher ground around vernal pools. 100–1,675 feet in elevation. Blooms February–June. Annual.	Not expected to occur. Suitable microtopography (flat, or gently sloping) and vernal pool and swale habitat are not present in the project area and only one parcel (Kountz) in the project area is within the elevation range of this species. No impact is anticipated.
Closed-throated beardtongue *Penstemon personatus*			1B.2	Lower montane coniferous forest, upper montane coniferous forest, chaparral. Usually on north-facing slopes in metavolcanic soils. 3,495–6,955 feet in elevation. Blooms June–September. Perennial.	**May occur**. Metavolcanic soils on north-facing slopes in chaparral and conifer forest habitat potentially suitable for closed-throated beardtongue may be present in Golden Lake Crossing, Lost Creek, Will (Maynard Ranch), Lumpkin Ridge, and Rominger parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable microhabitat or are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Sierra blue grass *Poa sierrae*			1B.3	Lower montane coniferous forest. Shady, moist, rocky slopes. Often in canyons. 1,200–4,920 feet in elevation. Blooms April–July. Geophyte.	**May occur**. Shady, moist, rocky slopes in conifer forest habitat potentially suitable for Sierra blue grass may be present in all the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Flexuose threadmoss *Pohlia flexuosa*			2B.1	Lower montane coniferous forest. Roadsides, rocky seeps. 3,115–3,365 feet in elevation. Perennial.	**May occur**. Roadsides and rocky seeps in conifer forest habitat potentially suitable for flexuose threadmoss may be present in Ameral, Bald Rock, Golden Lake Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Sticky pyrrocoma *Pyrrocoma lucida*			1B.2	Lower montane coniferous forest, meadows, and seeps, Great Basin scrub. Alkaline flats, clay soils. 2,495–6,855 feet in elevation. Blooms July–October. Perennial.	Not expected to occur. The project area is outside of the known geographical range of the species and suitable microhabitat is not present in the project area. No impact is anticipated.
Alder buckthorn *Rhamnus alnifolia*			2B.2	Meadows and seeps, lower montane coniferous forest, upper montane coniferous forest, riparian scrub. Mesic sites. 4,690–7,005 feet in elevation. Blooms May–July. Perennial.	Not expected to occur. The project area is outside of the elevation range of this species. No impact is anticipated.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Brownish beaked-rush *Rhynchospora capitellata*			2B.2	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest. Mesic sites. 150–5,610 feet in elevation. Blooms July–August. Perennial.	**May occur.** Seeps in conifer forest habitat potentially suitable for brownish beaked-rush may be present in all the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Sanford's arrowhead *Sagittaria sanfordii*			1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,135 feet in elevation. Blooms May–October. Geophyte.	Not expected to occur. Suitable standing or slow-moving water in ponds, marshes, or ditches are not present in the project area within the geographical and elevation range of this species. No impact is anticipated.
Water bulrush *Schoenoplectus subterminalis*			2B.3	Marshes and swamps, bogs, and fens. Montane lake margins, in shallow water. Streams low in nutrients. 2,460–7,380 feet in elevation. Blooms June–August. Geophyte.	**May occur**. Bogs and streams potentially suitable for water bulrush may be present in Speckert/Lake Madrone, Ameral, Kountz, Bald Rock, Golden Trout Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), Lumpkin Ridge, Rominger, and Cascade parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. Kennedy Woods parcel is outside of the elevation range of this species. No impact to this species is anticipated on the remaining project parcels.
Siskiyou jellyskin lichen *Scytinium siskiyouense*			1B.1	Lower montane coniferous forest, North coast coniferous forest Lower montane coniferous forest, north coast coniferous forest. Epiphytic, usually on the bark of Fagaceae, such as *Quercus* or *Chrysolepis*. 2,085–4,790 feet in elevation. Lichen.	**May occur.** Plant species in the Fagaceae family, such as *Quercus* and *Notholithocarpus*, occur in conifer forest habitat potentially suitable for Siskiyou jellyskin lichen in all the project parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found.
Feather River stonecrop *Sedum albomarginatum*			1B.2	Chaparral, lower montane coniferous forest. In crevices and on ledges of serpentine outcrops and slopes. 855–6,400 feet in elevation. Blooms May–June. Perennial.	**May occur**. Serpentine or gabbro outcrops and slopes in chaparral and conifer forest habitat potentially suitable for Feather River stonecrop may be present in Ameral, Kountz, Lost Creek, Dahlmier, Will (Maynard Ranch), and Lumpkin Ridge parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels do not contain suitable serpentine or gabbro habitat for this species. No impact to this species is anticipated on the remaining project parcels.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Butte County checkerbloom *Sidalcea robusta*			1B.2	Chaparral, cismontane woodland. Small draws and rocky crevices. 245–1,310 feet in elevation. Blooms April–June. Geophyte.	Not expected to occur. The project area is outside of the known geographical and elevation range of this species. No impact is anticipated.
Long-leaved starwort *Stellaria longifolia*			2B.2	Bogs and fens, meadows and seeps, riparian woodland, upper montane coniferous forest. Moist areas. 2,955–6,005 feet in elevation. Blooms May–August. Geophyte.	**May occur**. Bogs and seeps in riparian woodland and conifer forest habitat potentially suitable for long-leaved starwort may be present in Speckert/Lake Madrone, Ameral, Bald Rock, Golden Trout Crossing, Lost Creek, Dahlmier, Will (Maynard Ranch), Lumpkin Ridge, Rominger, and Cascade parcels. Treatments could result in direct or indirect adverse effects on this species. Pre-treatment surveys will be conducted per SPR BIO-7. This species will be flagged and avoided by treatment activities if found. The remaining project parcels are outside of the elevation range for this species. No impact to this species is anticipated on the remaining project parcels.
Butte County golden clover *Trifolium jokerstii*			1B.2	Valley and foothill grassland, vernal pools. Mesic sites in grassland. 165–1,265 feet in elevation. Blooms March–May. Annual.	Not expected to occur. Suitable grassland habitat is not present in the project area within the known geographical and elevation range of the species. No impact is anticipated.
Reptiles and Amphibians					
California red-legged frog *Rana draytonii*	FT	SSC	—	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation, and associated uplands of various habitat types. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**May occur:** Documented to occur in the Feather River Watershed (CNDDB 2023a) and aquatic habitat for the species is located within and adjacent to the project area (i.e., perennial streams with deep pools, stock ponds, seeps, and wetlands). Although the quality of the habitats likely declined due to the Bear-North Complex Fire, suitable upland habitat for the species is present. Treatment activities within California red-legged frog upland habitat could result in direct and indirect impacts to frogs and reduction in habitat quality. Due to the potential for California red-legged frog to occur within portions of the project area year-round, the habitat for the species cannot be avoided pursuant to SPR BIO-1. Pursuant to SPR BIO-10, either protocol surveys for California red-legged frog would be conducted or presence of the species would be assumed. If California red-legged frog is detected during protocol surveys or presence of the species is assumed, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, pre-treatment survey and monitoring would be required, mechanical treatments would be restricted following precipitation events, and mechanical treatments would be prohibited within 30 feet of Class III waters or other similar sensitive areas (e.g., seeps).

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Coast horned lizard *Phrynosoma blainvillii*	—	SSC	—	Chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinyon and juniper woodlands, riparian scrub, riparian woodland, valley and foothill grassland. 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.	Not expected to occur: The project area is outside of the range of this this species which is restricted to lower elevation foothills (CalHerps 2023).
Foothill yellow-legged frog (Feather River distinct population segment) *Rana boylii* pop. 2	FT	ST	—	Feather River watershed above Oroville. Specifically, watershed subbasins (HU 8) North Fork Feather, East Branch North Fork Feather, Middle Fork Feather, Butte Creek, and Honcut Headwaters – Lower Feather in Lassen, Plumas, Butte, and Sierra counties. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	Known to occur: The project area is within the range of the distinct population segment of this species (CNDDB 2023b). The species has been documented to occur within the portion of the South Fork of the Feather River that flows through the Kountz and Golden Trout Crossing parcels (CNDDB 2023a), and other portions of the project area include suitable streams that would be habitat for this species. Treatment activities within foothill yellow-legged frog upland habitat (within 200 feet of aquatic habitat) could result in direct and indirect impacts to frogs and reduction in habitat quality. If it is infeasible to implement a no-disturbance buffer of 200 feet adjacent to all Class I and Class II waters that contain suitable habitat for the species during the wet season (November 15 through April 15) or the Watercourse and Lake Protection Zones during the dry season (April 15 through November 15), pursuant to SPR BIO-1, either surveys for foothill yellow-legged frog would be conducted or presence of the species within the project area would be assumed pursuant to SPR BIO-10. If foothill yellow-legged frogs are detected during protocol surveys or presence of the species is assumed, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, pre-treatment survey within 220 feet of aquatic habitat and monitoring within 100 feet of aquatic habitat would be required).
Foothill yellow-legged frog (North Sierra distinct population segment) *Rana boylii* pop. 3	—	ST	—	Yuba River to Middle Fork American River, and Sutter Buttes. Subbasins (HU 8) Butte Creek, Honcut Headwaters - Lower Feather, Upper Yuba, Upper Bear, Upper Coon - Upper Auburn, North Fork American, and Lower American Rivers. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for	Not expected to occur: The project area is outside of the range of this distinct population segment of this species (CNDDB 2023b).

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
				egg-laying and at least 15 weeks to attain metamorphosis.	
Sierra Nevada yellow-legged frog *Rana sierrae*	FE	ST	—	High elevation low gradient streams and lakes and ponds. Always encountered within a few feet of water. Tadpoles may require 2 to 4 years to complete their aquatic development.	**May occur:** Higher elevation portions of the project are within the range of the species (CNDDB 2023c). The project area includes suitable low gradient streams, and fishless lakes and ponds that would be habitat for this species. Treatment activities within Sierra Nevada yellow-legged frog upland habitat (within 100 feet of aquatic habitat) could result in direct and indirect impacts on frogs and reduction in habitat quality. If portions of the project area (within 100 feet of aquatic habitat) cannot be avoided pursuant to SPR BIO-1, SPR BIO-10 would require a habitat survey and three visual encounter surveys in ten years of all life stages of Sierra Nevada yellow-legged frog ahead of work within a 100-foot buffer of perennial waters or other aquatic habitat suitable for the species, or presence of the species would be assumed. If surveys do not detect the presence of Sierra Nevada yellow-legged frog then no further mitigation would be required. If surveys detect Sierra Nevada yellow-legged frog or presence is assumed Mitigation Measure BIO-2a would apply. Mitigation Measure BIO-2a would limit treatments within 100 feet of suitable aquatic habitat to broadcast burning, manual treatments, and herbicide application (further than 60 feet of aquatic habitat). Furthermore, Mitigation Measure Bio-2a would require biological monitoring of suitable habitat for Sierra Nevada yellow-legged frog. If Sierra Nevada yellow-legged frogs are encountered during project activities, all work would stop, and a no-disturbance buffer of 100 feet would be established around any frogs detected during surveys or construction, and adults would be allowed to leave the construction area of their own volition.
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.	**May occur:** Higher elevation portions of the project are within the range of the species (CNDDB 2023d). The project area includes suitable low gradient streams, and fishless lakes and ponds and adjacent uplands that would be habitat for this species. Treatment activities that occur within upland habitat for this species could result in direct and direct impacts. Due to the potential for southern long-toed salamander to occur within portions of the project area year-round, the habitat for the species cannot be avoided pursuant to SPR BIO-1. Pursuant to SPR BIO-10, either surveys for southern long-toed salamander would be conducted or presence of the species within the project area would be assumed. If southern long-toed salamanders are detected during surveys or presence of the species is assumed, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, monitoring would be required during treatment activities within suitable habitat for the species.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Western pond turtle *Emys marmorata*	FP	SSC	—	Ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 1,640 feet from water for egg-laying.	**May occur:** The project area is within the range of the species and the Feather River watershed contains aquatic and upland habitat for the species. Treatment activities that occur within upland habitat (within approximately 1,500 feet of streams, lakes, and ponds) for this species could result in direct and indirect impacts. Herbicide treatments, because they would be conducted by hand and not within aquatic habitats, are not anticipated to result in impacts on western pond turtle. Prior to implementation of treatment activities within suitable nesting habitat approximately 1,500 feet of streams, lakes, and ponds, a focused visual encounter survey for western pond turtle will be implemented (pursuant to SPR BIO-10); if individuals are detected, occupied habitat areas would be flagged and avoided by treatment activities, turtles would be relocated by a qualified RPF or biologist and other measures recommended by a qualified RPF or biologist as necessary to avoid injury or mortality of western pond turtles would be implemented (pursuant to Mitigation Measure BIO-2b).
Western spadefoot *Spea hammondii*	—	SSC	—	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, and wetlands. Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not expected to occur: The project area is outside of the range of this species which is restricted to lower elevation foothills (CNDDB 2023e).
Birds					
Bald eagle *Haliaeetus leucocephalus*	FD	SE FP	—	Lower montane coniferous forest, old growth. 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:** Several portions of the project area occur within approximately 1 mile of potential aquatic foraging habitat for bald eagle. These portions of the project area may contain nest trees large enough to support nesting by bald eagles. Treatment activities conducted during the nesting bird season (February 1–August 31) could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If a bald eagle nest is observed, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer of at least 0.5 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
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	**May occur:** Documented to occur along Fall River in the Feather River drainage. The South Fork Feather River and streams within the project area may contain waterfall habitat suitable for nesting by the species. Treatment activities conducted during the nesting bird season (February 1–August 31) could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If a black swift nest is observed, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of at least 100 feet would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
California black rail *Laterallus jamaicensis coturniculus*	—	ST FP	—	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur: While the project area may contain small wetland features, these are not anticipated to be of sufficient size or maintain sufficient water to provide habitat for this species.
California spotted owl *Strix occidentalis occidentalis*	FP	SSC	—	Broadleaved upland forest, lower montane coniferous forest, and upper montane coniferous forest. 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.	**May occur:** The majority of the project that may have contained habitat suitable for this species burned with sufficient intensity in the North Complex Fire in 2020, such that it is no longer suitable for the species. However, the Ameral, Kountz, Lost Creek, and Maynard Ranch parcels contain and are adjacent to habitat that may be suitable for the species post fire. Treatment activities that include the use of heavy equipment, multiple vehicles, or powered hand tools, or prescribed burning could result in disturbance of nesting California spotted owls in suitable habitat, if these activities occur during the sensitive nesting season (March 1–August 15). Per SPR BIO-1, if it is determined that adverse effects on habitat suitable for California spotted owl can be clearly avoided by conducting treatments outside of the season of sensitivity (i.e., nesting season), then further measures would not be required. Because California spotted owl nesting occurrences have been documented adjacent to portions of the project area that contain potentially suitable habitat, to determine whether a documented California spotted owl nesting occurrence is present within 0.25 mile of the treatment area under SPR BIO-1, a qualified RPF or biologist would review California spotted owl occurrence data in the CNDDB. Potential impacts on California spotted owl would be

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
					avoided by implementing a limited operating period within 0.25 mile of nesting habitat within the project area or any documented occurrence during the spotted owl nesting season (March 1–August 15) for treatment activities that include the use of heavy equipment, multiple vehicles, or powered hand tools, or prescribed burning. If the limited operating period is determined to be infeasible, then SPR BIO-10 would apply, and protocol-level surveys for California spotted owl would be conducted by a qualified RPF or biologist within a 0.25-mile buffer surrounding the treatment area in habitat suitable for the species prior to implementation of treatment activities. Surveys for California spotted owl would be conducted pursuant to the *Protocol for Surveying for Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas* (USFS 1993). If nesting California spotted owls are not identified during protocol-level surveys, then further mitigation for the species would not be required. If nesting California spotted owls are identified during protocol-level surveys, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no disturbance buffer of 0.25 mile would be established around active California spotted owl nests and no treatment activities would occur within this buffer until chicks have fledged.
Golden eagle *Aquila chrysaetos*	—	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.	***May occur.*** The project area contains coniferous forest and open habitat potentially suitable for this species. Treatment activities conducted during the nesting bird season (February 1–August 31) could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. Prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If a bald eagle nest is observed, then Mitigation Measure BIO-2a would be implemented, and a no-disturbance buffer of at least 0.5 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
Great gray owl *Strix nebulosa*	—	SE	—	Lower montane coniferous forest, old growth, subalpine coniferous forest, upper montane coniferous forest. 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.	Not expected to occur: Portions of the project area may have contained habitat suitable for this species prior to the North Complex Fire in 2020; however, these stands are not likely to be suitable post fire.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Northern goshawk *Accipiter gentilis*	—	SSC	—	Nests primarily in conifer forest and aspen stands with high canopy closure (typically greater than 70 percent), relatively high density of large live and dead trees, low density of small trees, and low shrub/sapling and ground cover. Reuses old nests and maintains alternate nest sites. Often nests on gentle to moderate north slopes and near water. Forages in moderately dense, mature forests and younger forests, some openings, and along forest edges. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	**Known to occur:** The species was documented to occur historically within the Lost Creek parcel (CNDDB 2023a). The majority of the project area that may have contained conifer habitat with high canopy closure suitable for this species burned with sufficient intensity in the North Complex Fire in 2020, such that it is no longer suitable for the species. However, a portion of the Maynard Ranch and Lost Creek parcels may be suitable for the species post fire. Treatment activities conducted during the nesting bird season (February 1–August 31) could result in disturbance to active nests from auditory and visual stimulus (e.g., heavy equipment, chainsaws, vehicles, personnel) potentially resulting in abandonment and loss of eggs or chicks. In habitat suitable for the species, prior to implementation of treatment activities during the nesting bird season (February 1–August 31), focused nest surveys would be conducted by a qualified RPF or biologist no more than 14 days prior to the start of treatment activities (pursuant to SPR BIO-10). If a norther goshawk nest is observed, then Mitigation Measure BIO-2b would be implemented, and a no-disturbance buffer of at least 0.25 mile would be established around the nest within which no treatment activities would occur until the chicks have fledged as determined by a qualified RPF or biologist.
Tricolored blackbird *Agelaius tricolor*	—	ST	—	Freshwater marsh, marsh and swamp, swamp, wetland. 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.	**May occur:** The majority of the project area is outside of the range of this species which is restricted to lower elevation foothills (CNDDB 2023f). The Kennedy Woods parcel is within the range of the species; however, there is no nesting habitat within this parcel. Ponds that may provide nesting habitat are present outside of the parcel, and the area may be used for foraging by the species. Treatment activities conducted on the Kennedy Woods parcel are not likely to disturb nesting activities in the nesting habitat outside of the parcel, and treatments are not likely to substantially affect foraging birds or habitat within the parcel.
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.	Not expected to occur: Portions of the project area may have dense willows within wet meadow habitat suitable for this species prior to the North Complex Fire in 2020; however, these stands are not likely to be suitable post fire. Riparian habitat along the South Fork of the Feather River and Lost Creek, remains intact; however, these riparian areas are not likely to exhibit the extend duration flooding required to be considered suitable nesting habitat for the species. While the project may contain small wetland features, wet meadow habitat suitable for this species is not expected to occur within the project area.
Fish					
Chinook salmon - Central Valley spring-run ESU	FT	ST	—	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps	Not expected to occur: The project area is upstream of Lake Oroville. The Oroville Dam blocks upstream passage of the species during migration from ocean waters. Therefore, streams in the project area do not provide habitat for the species.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Oncorhynchus tshawytscha pop. 11				greater than 27 C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries.	
Green sturgeon – southern DPS *Acipenser medirostris* pop. 1	FT	—	—	Spawns in the Sacramento, Feather, and Yuba Rivers. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11–15 C) sections of mainstem rivers in deep pools (25–30 feet) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not expected to occur: The project area is upstream of Lake Oroville. The Oroville Dam blocks upstream passage of the species during migration from ocean waters. Therefore, streams in the project area do not provide habitat for the species.
Hardhead *Mylopharodon conocephalus*	—	SCC	—	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	**May occur:** Hardhead are known to occur within the North Fork Feather River above Lake Oroville (CNDDB 2023a). While there are no known occurrences of the species within the project area, the South Fork Feather River and perennial streams within the project area are within the Feather River Drainage and may provide habitat for the species. The South Fork American River and streams in the project area would not be targeted for treatment. Further, pursuant to SPR HYD-4, WLPZs would be implemented adjacent to streams in the project area, which would limit the types of treatments that would occur adjacent to streams (i.e., mechanical treatments, pile burning, broadcast burn ignitions). Because no in-water work would occur and indirect impacts on streams would be avoided through implementation of SPRs, project implementation would not result in impacts on special-status fish species.
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* 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 upstream of Lake Oroville. The Oroville Dam blocks upstream passage of the species during migration from ocean waters. Therefore, streams in the project area do not provide habitat for the species.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Invertebrates					
Crotch bumble bee *Bombus crotchii*	—	SC	—	Found primarily in California: mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	**May occur:** The Kennedy Woods parcel is within the current range of the species (CDFW 2023a). While the other parcels are outside of the current published range, the Cascade parcel is within 1 mile of the current range of the species. In addition, the understory portions of these parcels have recovered post fire to the extent that they may provide suitable floral resources for the species. Although Crotch's bumble bee is not known to occur in the vicinity of the project, bumble bees are underrepresented in species databases, and this species has potential to occur in the Kennedy Woods parcel and Cascade parcel where nectar plants are present. Per SPR BIO-1, if it is determined that adverse effects on special-status species can be clearly avoided by physically avoiding the suitable habitat or by conducting treatments outside of the season when a sensitive resource is present, then no additional action would be required. However, because Crotch bumble bees may be present within portions of the project area year-round, either in colonies or as overwintering queens, SPR BIO-10 would apply in the Kennedy Woods and Cascade parcel, and habitat assessment and focused surveys, if assessment determines that suitable habitat is present, for Crotch bumble bees would be conducted following the *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023a) prior to implementation of treatments, except manual tree planting, or presence of the species within treatment areas would be assumed. If Crotch bumble bees are detected during focused surveys or if presences is assumed, pursuant to Mitigation Measure BIO-2g, prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February (unless burn window adjusted in coordination with a qualified biologist) to avoid the bumble bee flight season, herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season, and treatments would be conducted in a patchy pattern such that bumble bee habitat is retained. Information on Crotch bumble bee is gradually becoming more available. However, there is limited information on the abundance of Crotch bumble bee in California or colony size (CDFW 2019), and a current lack of published information on the potential magnitude of effects from the loss of individual Crotch bumble bee overwintering queens or nests on populations of the species. Since the Program EIR was certified, CDFW released new survey guidance in June 2023, which highlights that overwintering habitat for the majority of bumble bee species in North America is poorly understood (CDFW 2023a). Due to this lack of understanding, CDFW is not recommending surveys for the overwintering period (CDFW 2023a). However, implementation of project-specific measures described in Mitigation Measure BIO-2g (*see* Attachment A) would reduce impacts on Crotch bumble bees to a less-than-significant level.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Monarch *Danaus plexippus*	FP	—	—	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 (*Asclepia*s 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.	**Known to occur:** The project area is outside of the overwintering range of monarch butterfly. However, the project area contains open habitats with floral resources that potentially contain milkweed host plants; thus, monarch may forage or breed in the project area. The species was detected during the SPR BIO-1 survey. Treatment activities, other than manual tree planting, could result in direct loss of monarch butterflies or removal of host plants for this species (i.e., *Asclepias* spp.) if conducted during the season when eggs, larvae, or pupae may be present (June 1–September 30) (CDFW 2019). If it is not feasible to conduct treatments outside of June 1 through September 30, SPR BIO-10 would apply and a survey will be conducted for the host plants and eggs, larvae, or pupae of this species in and within 10 feet of the project area. If host plants are detected and monarch eggs, larvae, or pupae are present or assumed to be present, plant locations will be marked with high-visibility flagging, fencing, or stakes, and no treatment activities will occur within 10 feet of these plants pursuant to Mitigation Measure BIO-2e, to the extent feasible. Monarch is currently a candidate for listing under ESA. Should the species be listed, further consultation with the USFWS may be required.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	—	—	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). 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 documented elevational range of the species.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	—	—	Valley and foothill grassland, vernal pool, wetland. 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: Vernal pool habitat that would be suitable for this species is not present within the project area.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	—	—	Valley and foothill grassland, vernal pool, wetland. 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: Vernal pool habitat that would be suitable for this species is not present within the project area.
Western bumble bee Bombus occidentalis	—	SC	—	Once common throughout much of its range, in California, this species is currently largely restricted to high elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires 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.	**May occur:** The project area is outside of the current range of the species (CDFW 2023a); however, the Cascade parcel is just downslope (approximately 2 miles) from the current range of the species. In addition, the understory of this parcel has recovered post fire to the extent that it may provide suitable floral resources for the species. Although western bumble bee is not known to occur in the vicinity of the project, bumble bees are underrepresented in species databases, and this species has potential to occur on the Cascade parcel where nectar plants are present. Per SPR BIO-1, if it is determined that adverse effects on special-status species can be clearly avoided by physically avoiding the suitable habitat or by conducting treatments outside of the season when a sensitive resource is present, then no additional action would be required. However, because western bumble bees may be present within portions of the project area year-round, either in colonies or as overwintering queens, SPR BIO-10 would apply in the Cascade parcel, and habitat assessment and focused surveys, if assessment determines that suitable habitat is present, for western bumble bees would be conducted following the *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023a) prior to implementation of treatment activities, except for manual tree planting, or presence of the species within treatment areas would be assumed. If western bumble bees are detected during focused surveys or if presences is assumed, pursuant to Mitigation Measure BIO-2g, prescribed burning within occupied or suitable habitat for special-status bumble bees will occur from October through February (unless burn window adjusted in coordination with a qualified biologist) to avoid the bumble bee flight season, herbicides will not be applied to flowering native plants within occupied or suitable habitat to the extent feasible during the flight season, and treatments would be conducted in a patchy pattern such that bumble bee habitat is retained. Information on western bumble bees is gradually becoming more available. However, there is limited information on the abundance of western bumble bee in California or colony size (CDFW 2019), and a current lack of published information on the potential magnitude of effects from the loss of individual western bumble bee overwintering queens or nests on populations of the species. Since the Program EIR was certified, CDFW released new survey

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
					guidance in June 2023, which highlights that overwintering habitat for the majority of bumble bee species in North America is poorly understood (CDFW 2023a). Due to this lack of understanding, CDFW is not recommending surveys for the overwintering period (CDFW 2023a). However, implementation of project-specific measures described in Mitigation Measure BIO-2g (*see* Attachment A) would reduce impacts on western bumble bees to a less-than-significant level, including restrictions on herbicide application techniques, specific guidance for chipped debris and burn pile placement, guidance for broadcast burning, and division of the project area such that the entirety of habitat is not treated in a single year.
Mammals					
Fisher *Pekania pennanti*	—	SSC	—	North coast coniferous forest, old growth, riparian forest. 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.	**May occur:** The majority of the project that may have contained high canopy cover habitat suitable for this species burned with sufficient intensity in the North Complex Fire in 2020, such that it is no longer suitable for the species. However, the Ameral, Kountz, Lost Creek, and Maynard Ranch parcels contain habitat that may be suitable for the species post fire. Herbicide application and pile burning treatments would not result in adverse effects on fisher dens because personnel would conduct these activities on foot, and the likelihood of a den being inadvertently destroyed would be very low. However, broadcast burning, manual tree removal, and mechanical treatments conducted during the fisher maternity season (i.e., the period during which young would be present in a den, approximately March 1–June 30) and within forest habitats suitable for fisher, could result in destruction of active dens in downed woody debris, live trees with cavities, or snags; or disturbance to active dens potentially resulting in abandonment and loss of young. Adverse effects on fishers would be clearly avoided for broadcast burning, manual tree removal, and mechanical treatments that would occur outside of the fisher maternity season (March 1–June 30) under SPR BIO-1. If conducting broadcast burning, manual tree removal, and mechanical treatments outside of the fisher maternity season is determined to be infeasible, then SPR BIO-10 would apply, focused surveys for fishers would be conducted within areas in the treatment area determined to contain habitat suitable for the species prior to prescribed burning, manual tree removal, and mechanical treatments. If focused surveys are conducted and fishers are not detected, then further mitigation for the species would not be required. If fishers are detected during focused surveys, then additional surveys would be required to determine whether an active fisher den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, Mitigation Measure BIO-2b would be implemented. Under Mitigation Measure BIO-2b, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No broadcast burning, manual treatments using power tools, and mechanical treatments would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist. If the presence of fisher within the treatment area is assumed, then implementation

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
					of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2b before and during implementation of broadcast burning, manual treatments using chainsaws, and mechanical treatments between March 1 and June 30. Avoidance and minimization measures would include but not be limited to pre-treatment den surveys, daily sweeps of the treatment area, and biological monitoring.
Gray wolf *Canis lupus*	FE	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.	Not expected to occur: The project area is outside of the approximate area of gray wolf activity in California. The two nearest wolfpacks, the Lassen pack and Beckwourth pack, are located in eastern Plumas County and over the crest of the Sierra from the project area (CDFW 2023b). In addition, while there is documentation that collared wolves have passed though portions of Western Plumas County and Butte County where the project is located, these wolves are not known to reside in the vicinity of the project area (CDFW 2023c; CDFW 2023d). Therefore, while it is possible that gray wolves may pass through the project area, they are not expected to occur.
Pallid bat *Antrozous pallidus*	—	SSC	—	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**May occur:** Although the majority of the project area burned in the North Complex Fire in 2020, large live trees remain and standing snags are abundant within the project area. These trees and snags may provide roosting habitat for this species. Treatments would be conducted within habitat suitable for roosting bats. Herbicide application treatments would not result in adverse effects on special-status bats, because personnel would conduct these activities on foot, and the likelihood of a roost being inadvertently disturbed would be very low. Therefore, prescribed burning, mechanical treatments, and manual treatments using power tools could potentially disturb active bat roosts from auditory and visual stimuli (e.g., presence of heavy equipment, chainsaws, vehicles, personnel). This disturbance could potentially result in abandonment of the roost and loss of young. If treatments occur during the bat maternity season (April 1–August 31), then SPR BIO-10 would apply, and focused surveys for bats would be conducted within suitable habitat areas prior to treatment activities. If bat roosts are identified during focused surveys, MM BIO-2b for bats would be implemented. Under MM BIO-2b, a no-disturbance buffer would be established around active bat maternity roosts, and prescribed burning, mechanical treatments, and manual treatments using power tools would not occur within this buffer.
Ringtail *Bassariscus astutus*	—	FP	—	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Often found near, but not limited to, a permanent water source.	**May occur:** Although the majority of the project area burned in the North Complex Fire in 2020, many portions of the project area contain sufficient shrubs, snags, and other potential denning habitat to be suitable for this species. Herbicide application would not result in adverse effects on ringtail dens because personnel would conduct these activities on foot, and the likelihood of a den being destroyed would be very low. However, prescribed burning, manual tree removal, and mechanical treatments conducted within habitat suitable for ringtail during the ringtail maternity season (i.e., the

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
					period during which young would be present in a den, approximately April 15–June 30) could result in destruction of active dens or disturbance to active dens potentially resulting in abandonment and loss of young. Adverse effects on ringtail would be clearly avoided for prescribed burning, manual treatments using chainsaws, and mechanical treatments in habitat suitable for ringtail that would occur outside of the ringtail maternity season (April 15–June 30) per SPR BIO-1. If conducting prescribed burning, manual tree removal, and mechanical treatments within habitat suitable for ringtail outside of the ringtail maternity season is determined to be infeasible, then SPR BIO-10 would apply, and presence of ringtail would be assumed, or focused surveys for ringtail would be conducted within suitable habitats in the treatment area before implementation of treatment activities. If focused surveys are conducted, and ringtails are not detected, then further mitigation for the species would not be required. If ringtails are detected during focused surveys, then additional surveys would be required to determine whether an active ringtail den is present within the treatment area. If an active den is identified by a qualified RPF or biologist, Mitigation Measure BIO-2a would be implemented. Under Mitigation Measure BIO-2a, a no-disturbance buffer would be established around the den, the size of which would be determined through consultation with CDFW. No prescribed burning, tree removal, and mechanical treatments would occur within this buffer until the den is no longer occupied as determined by the qualified RPF or biologist. If the presence of ringtail within the treatment area is assumed, then implementation of avoidance and minimization measures would be required pursuant to Mitigation Measure BIO-2a before and during implementation of prescribed burning, mechanical treatments, and manual tree removal in habitats suitable for ringtail between April 15 and June 30. Avoidance and minimization measures would include but not be limited to pre-treatment den surveys, daily sweeps of the treatment area, and biological monitoring.
Sierra Nevada mountain beaver *Aplodontia rufa californica*	—	SSC	—	Riparian forest, riparian scrub, riparian woodland. 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.	Not expected to occur: The project area is outside of the published range of the species (CNDDB 2023g). Although the Cascade parcel is within 3 miles of the published range and may have contained riparian habitat prior to the North Complex Fire, it is unlikely that riparian habitat remains on this parcel.

Species	Status[1] Federal	Status[1] State	Status[1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence[2]/Potential Impact
Townsend's big-eared bat *Corynorhinus townsendii*	—	SSC	—	Throughout California in a wide variety of habitats. Most common in mesic sites. Requires large cavities for roosting, which may include abandoned buildings and mines, caves, and basal cavities of trees. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**May occur:** Although the majority of the project area burned in the North Complex Fire in 2020, large live trees remain and standing snags are abundant within the project area. These trees and snags may provide roosting habitat for this species. Treatments would be conducted within habitat suitable for roosting bats. Herbicide application treatments would not result in adverse effects on special-status bats, because personnel would conduct these activities on foot, and the likelihood of a roost being inadvertently disturbed would be very low. Therefore, prescribed burning, mechanical treatments, and manual treatments using power tools could potentially disturb active bat roosts from auditory and visual stimuli (e.g., presence of heavy equipment, chainsaws, vehicles, personnel). This disturbance could potentially result in abandonment of the roost and loss of young. If treatments occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for bats would be conducted within suitable habitat areas prior to treatment activities. If bat roosts are identified during focused surveys, MM BIO-2b for bats would be implemented. Under MM BIO-2b, a no-disturbance buffer would be established around active bat maternity roosts, and prescribed burning, mechanical treatments, and manual treatments using power tools would not occur within this buffer.
Western mastiff bat *Eumops perotis californicus*	—	SSC	—	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. 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:** Although the majority of the project area burned in the North Complex Fire in 2020, large live trees remain and standing snags are abundant within the project area. These trees and snags may provide roosting habitat for this species. Treatments would be conducted within habitat suitable for roosting bats. Herbicide application treatments would not result in adverse effects on special-status bats because personnel would conduct these activities on foot, and the likelihood of a roost being inadvertently disturbed would be very low. Therefore, prescribed burning, mechanical treatments, and manual treatments using power tools could potentially disturb active bat roosts from auditory and visual stimuli (e.g., presence of heavy equipment, chainsaws, vehicles, personnel). This disturbance could potentially result in abandonment of the roost and loss of young. If treatments occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for bats would be conducted within suitable habitat areas prior to treatment activities. If bat roosts are identified during focused surveys, MM BIO-2b for bats would be implemented. Under MM BIO-2b, a no-disturbance buffer would be established around active bat maternity roosts, and prescribed burning, mechanical treatments, and manual treatments using power tools would not occur within this buffer.

Species	Status [1] Federal	Status [1] State	Status [1] CRPR/ Other	Habitat and Blooming Period	Potential for Occurrence [2]/Potential Impact
Western red bat *Lasiurus frantzii*	—	SSC	—	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland 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:** Although the majority of the project area burned in the North Complex Fire in 2020, large live trees and riparian habitats remain within the project area. These trees may provide roosting habitat for this species. Treatments would be conducted within habitat suitable for roosting bats. Herbicide application treatments would not result in adverse effects on special-status bats, because personnel would conduct these activities on foot, and the likelihood of a roost being inadvertently disturbed would be very low. Therefore, mechanical and manual treatments using power tools could potentially disturb active bat roosts from auditory and visual stimuli (e.g., presence of heavy equipment, vehicles, personnel). This disturbance could potentially result in abandonment of the roost and loss of young. If treatments occur during the bat maternity season, then SPR BIO-10 would apply, and focused surveys for bats would be conducted within suitable habitat areas prior to treatment activities. If bat roosts are identified during focused surveys, MM BIO-2b for bats would be implemented. Under MM BIO-2b, a no-disturbance buffer would be established around active bat maternity roosts, and mechanical and manual treatments using power tools would not occur within this buffer.

Note: CNDDB = California Natural Diversity Database; DPS= Distinct Population Segment; CRPR = California Rare Plant Rank

[1] Legal Status Definitions

Federal:

FE Endangered (legally protected)
FT Threatened (legally protected)

State:

SE Endangered (legally protected)
ST Threatened (legally protected)
SC Candidate for Listing under CESA (legally protected)
FP Fully protected (legally protected)
SR Rare (legally protected by NPPA)
SSC Species of special concern (no formal protection other than CEQA consideration)

California Rare Plant Ranks:

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)

Threat Ranks

0.1-Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

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

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

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the project area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
May occur: Suitable habitat is available in the project area; however, there are little to no other indicators that the species might be present.
Known to occur: The species, or evidence of its presence, was observed in the project area during reconnaissance surveys, or was reported by others.

Sources: Calflora 2023; CNDDB 2023a; CNPS 2023; Jepson Flora Project 2023; USFWS 2023

SENSITIVE NATURAL COMMUNITIES

Based on review of FRAP vegetation data and habitat present in the project area as verified during the August 8, 2022, and November 29-30, 2023, reconnaissance-level surveys conducted pursuant to SPR BIO-1, the habitat types present in the project area include mixed coniferous forest, mixed pine and oak woodland, mixed and montane chaparral, and annual grassland. Mixed coniferous forest habitat comprises the majority of the project area and is intermixed with grassland. Dominant species include ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), and incense cedar (*Calocedrus decurrans*). Mixed pine-oak woodlands are dominated by interior live oak (*Quercus wislizenii*), black oak (*Quercus kelloggii*), and gray pine (*Pinus douglasii*). Buckeye (*Aesculus californica*) and ponderosa pine also occur. Understory vegetation consists of shrubs and subshrubs such as common manzanita (*Arctostaphylos manzanita*), buckbrush (*Ceanothus cuneatus*), and madrone (*Arbutus menziesii*). Other areas are dominated by annual grassland composed of a variety of nonnative and some native herbaceous species such as yellow star-thistle (*Centaurea solstitialis*), soft chess (*Bromus hordeaceous*), rose clover (*Trifolium hirtum*), ragweed (*Senecio vulgaris*), and common yarrow (*Achillea millefolium*).

Based on a review of species ranges, occurrence data, vegetation mapping pre-fire, aerial photos, and the reconnaissance-level survey, 19 sensitive natural communities have potential to occur within the California Wildlife Habitat Relationships habitat types in the project area, may have occurred in the project area before the North Complex fire, or may occur in the future following post-fire re-growth (Table B-3).

The survey intensity during the reconnaissance survey was not sufficient to identify vegetation to alliance level, so additional sensitive natural communities may be present (including those identified in Table B-3). Most riverine and riparian features have been identified and flagged within the project areas pursuant to SPR-BIO-4; therefore, mapping sensitive natural communities prior to treatment as required under SPR BIO-3 would be limited to unidentified features. The desired condition following treatment would be re-establishment of the existing vegetation communities at historical densities and appropriate seral-stage communities within the project area.

Additionally, all chaparral habitats are considered sensitive habitat types based on Senate Bill 1260, Statutes of 2018, and Public Resources Code 4482 in that they warrant additional consideration because this statute prohibits type conversion of these vegetation communities (see discussion below under "Chaparral"). As required by Mitigation Measure BIO-3a, prescribed burning would be the primary treatment activity in sensitive natural communities that are fire dependent (e.g., chaparral alliances characterized by fire-stimulated, obligate seeders, such as common manzanita), to the extent feasible and appropriate based on the fire regime attributes as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009). If significant impacts on sensitive natural communities or oak woodlands cannot feasibly be avoided or reduced as specified under Mitigation Measure BIO-3a, the project proponent will implement Mitigation Measure BIO-3b.

Table B-3 Sensitive Natural Communities Documented or with the Potential to Occur in the Project Area

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Incense cedar forest	S3	Sierran Mixed Conifer
Bigleaf maple forest and woodland	S3	Douglas Fir; Montane Hardwood; Montane Hardwood-Conifer
California buckeye grove	S3	Montane Hardwood
Tanoak forest	S3.2	Montane Hardwood
Rocky Mountain maple thicket	S3?	Montane Riparian
Torrent sedge patch	S3	Montane Riparian; Valley Foothill Riparian
Fremont cottonwood forest	S3.2	Montane Riparian; Valley Foothill Riparian
Black cottonwood forest	S3	Montane Riparian; Valley Foothill Riparian
Booth's Willow - Geyer's Willow - Yellow Willow thickets	S2	Montane Riparian

Sensitive Natural Community[1]	Rarity Rank[2]	Habitat Type
Oregon ash grove	S3.2	Montane Riparian
Button willow thicket	S2	Valley Foothill Riparian
California sycamore woodland	S3	Valley Foothill Riparian
California rose briar patch	S3	Valley Foothill Riparian
Goodding's willow - red willow riparian woodland and forest	S3	Valley Foothill Riparian
Hoary, common, and Stanford manzanita chaparral	S3	Mixed Chaparral
Oak gooseberry thicket	S2?	Mixed Chaparral
White-tip clover swales	S3?	Annual Grassland
California brome - blue wildrye prairie	S3	Perennial Grassland
Deer grass bed	S2?	Perennial Grassland

[1] These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable)

[2] Older ranks, which need to be updated by CDFW, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats. A question mark (?) denotes an inexact numeric rank because there are insufficient samples over the full expected range of the type, but existing information points to this rank.

Source: Sawyer et al. 2009, compiled by Ascent Environmental in 2023.

Sensitive Habitats

OAK WOODLAND

Montane hardwood, which can include oak woodland habitats, has been identified (see Table B-1) as potentially present in the project area. During the reconnaissance-level survey, black oak and interior live oak were observed. Treatments would result in a modification of existing fuels that would provide ideal conditions to facilitate regeneration of stands where mortality was high and ultimately support native vegetative species regeneration. If oak tree stands within the project area consist of multiple age classes, patches representing a range of middle to old age classes will be retained to maintain and improve heterogeneity.

Mitigation Measure BIO-3a requires treatments be designed to replicate the fire regime attributes for the affected oak woodland type including seasonality, fire return interval, fire size, spatial complexity, fire line intensity, severity, and fire type as described in *Fire in California's Ecosystems* (Van Wagtendonk et al. 2018) and the *Manual of California Vegetation* (Sawyer et al. 2009). If treatment activities within identified oak woodlands cannot be avoided, then Mitigation Measure BIO-3a would apply in these areas. Because habitat function of oak woodlands would be maintained through implementation of Mitigation Measure BIO-3a, Mitigation Measure BIO-3b would not apply, and no compensatory mitigation would be required because there would be no unavoidable loss of oak woodlands.

RIPARIAN HABITAT

The project area contains a few perennial and numerous intermittent (potentially Class I and Class II) streams. During the reconnaissance-level survey, riparian habitats were observed to occur in association with riverine features in the Feather River Watershed. In addition, most riparian features have been identified and flagged for avoidance within the project areas pursuant to SPR-BIO-4. WLPZs ranging from 50 to 150 feet will be established adjacent to all Class I and Class II streams within the project area. While these measures would reduce potential impacts on riparian habitat, some disturbance is allowed within the WLPZ, including the allowance for up to 25 percent vegetation removal. SPR BIO-4 requires that 75 percent of the overstory and 50 percent of the understory canopy of native riparian vegetation mapped during surveys conducted pursuant to SPR BIO-3 be retained, that treatments are limited to uncharacteristic fuel loads, and that large, native riparian hardwoods be retained. In addition, SPR BIO-4 requires that the project

proponent notify CDFW when required pursuant to California Fish and Game Code Section 1602 prior to implementing treatment activities in riparian habitats.

CHAPARRAL

As described in Table B-1, chaparral habitat (i.e., montane chaparral and mixed chaparral) is present in the project area in Bald Rock, Kennedy Woods, Speckert/Lake Madrone, and Kountz parcels. The project area contains approximately 77.3 acres of chaparral. Chaparral habitat observed in the project area during the reconnaissance-level survey included manzanita (e.g., common manzanita, buckbrush, and toyon (*Heteromeles arbutifolia*)). It is likely, based on observations during SPR BIO-1 surveys and review of aerial imagery, that some portions of the project area mapped as chapparal in the CAL FIRE FRAP vegetation mapping contain conifer sapling or pole stands and do not contain any chaparral species (i.e., the vegetation mapping is inaccurate). The project areas occupied by chaparral prior to the North Complex Fire are expected to reestablish and be dominated by the same vegetation communities that occurred prior to the fire.

Common manzanita, observed in the project area, and Ceanothus species found in the project region, such as buckbrush and deer brush (*Ceanothus integerrimus*), are obligate and facultative seeders. Common manzanita and buckbrush are generally killed by fire and obligate seeders are entirely dependent on seed germination after fire, while facultative seeders may sprout from the root crown and establish from seed after fire. The fire return interval for these species varies from 10 to 50 years for deer brush, 20 to 100 years for buckbrush, and 30 to 125 years for common manzanita. The 2020 North Complex Fire perimeter encompassed most of the chaparral habitats in the project area. Therefore, prescribed burn treatments will not occur in these areas for a minimum of 10 to 30 years depending on the chaparral vegetation type because the normal fire return interval for these species is a minimum of 10 to 30 years. Mechanical treatments, such as mastication, can mimic the same type of disturbance as prescribed burns without providing the advantage of creating smoke and biochar that stimulates seed germination in chaparral species with an obligate or facultative seeding life history strategy. Therefore, mechanical treatments will not occur in chaparral habitats that were burned during the North Complex Fire if the dominant species in that vegetation community is an obligate or facultative seeder.

All chaparral habitats are subject to the provisions of SB 1260 (Statutes of 2018) and Public Resource Code 4482, which prohibit type conversion in chaparral and coastal sage scrub communities. SPR BIO-5 requires that treatments be designed to avoid the environmental effects of type conversion within chaparral habitat by maintaining a minimum percent cover of mature shrubs and maintaining habitat function. Specifically, for ecological restoration treatment types, complete removal of the mature shrub layer will not occur in native chaparral vegetation types, a minimum of 35 percent of existing live, healthy shrubs and associate native vegetation will be retained at existing densities, and a range of middle to old age classes will be retained. The spatial scale within which the effects of type conversion are evaluated for this project comprises publicly owned lands within the Dry Creek, Lower North Fork Feather River, Lower Middle Fork Feather River, and South Fork Feather River (10-digit hydrologic unit) watersheds. The project area is located in these four watersheds. This spatial scale is appropriate because there are 4,669 acres of chaparral habitat on approximately 203,841 acres of publicly owned lands within these watersheds. The majority of these publicly owned lands outside the project area are under various protected status as parks and open space (US Forest Service) lands. This is a substantial landscape scale at which ecologically functional habitat capable of meeting the resource needs of species that rely on these habitats can be maintained within the watersheds.

WETLANDS

CAL FIRE's FRAP vegetation data does not include any riparian or wetland habitat. However, the NWI classifies the project area as having approximately 3.3 acres of freshwater forested/shrub wetland, and 39.3 acres of riverine habitat (USFWS 2023). Riverine habitats include the South Fork Feather River, tributaries of the South Fork Feather River, South Branch Mid Fork Feather River, Owl Creek, Know Nothing Creek, Lost Creek, Martin Creek, Galen Creek, Canyon Creek, various unnamed intermittent and ephemeral drainages, and the Oroville-Wyandotte Canal. Aquatic habitats are mapped at a coarse scale in both the FRAP and NWI databases and sometimes without field verification.

Additional wetlands may be present throughout the project area that have not been identified or mapped as well as ponds smaller than 1 acre (i.e., not considered a lake under Forest Practice Rules), seasonal wetlands, springs, and seeps. Many types of aquatic habitats, including fresh emergent wetlands, are not associated with lakes or streams, and would not be protected by implementation of SPR HYD-4 WLPZs. Mitigation Measure BIO-4 would apply to all treatment activities, and a qualified RPF or biologist would delineate the boundaries of wetland features; establish an appropriate buffer (with a minimum of 25 feet) around seasonal wetlands, springs, seeps, and other wetlands; and mark the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway). A larger buffer may be required if wetlands or other aquatic habitats contain habitat potentially suitable for special-status plants or special-status wildlife (e.g., foothill yellow-legged frog, western pond turtle; see Impact BIO-1 and Impact BIO-2).

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