

## 5.4 Biological Resources

### 5.4.1 Environmental Setting

The proposed project would be located approximately 11 miles south of Redding, California, in unincorporated portions of southwestern Shasta County, including the communities of Happy Valley, Olinda, and Igo. The majority of the land located adjacent to the proposed project area is used for agriculture, with limited residential and commercial properties dispersed throughout. Olive orchards are located adjacent in the central portion of the proposed project area along Scout and Olive Streets, and open woodland occurs in the vicinity of Happy Valley Road at Spring Creek and along the western portion of Cloverdale Road to the western end of the proposed project area, in the community of Igo. The predominant vegetation community in the proposed project area is Blue Oak-Digger Pine Woodland, and the landscape is characterized by multiple wetland and drainage features. Elevations in the proposed project area range from 650 to 1100 feet above mean sea level.

### Methodology

To determine potential impacts of the proposed project on biological resources, the California Public Utilities Commission (CPUC) conducted a literature review to identify biological resources in the proposed project area and reviewed survey results conducted by and provided by the applicant (Appendix D). Appendix D includes Biological Resources Evaluation (Tierra ROW 2015a) and Waterway Delineation and Assessment Report (Tierra ROW 2015b). The literature review involved searching for occurrence records of special status plant and animal species, designated critical habitat for listed species, and sensitive natural communities, as contained in the following databases:

- California Department of Fish and Wildlife (CDFW) Biogeographic Data Branch, Special Animals List (CDFW 2018);
- California Native Plant Society (CNPS) 2018 Online Inventory of Rare and Endangered Plants of California (CNPS 2018);
- CDFW California Natural Diversity Data Base (CNDDDB) search of the following U.S. Geological Survey (USGS) 7.5-minute series USGS Enterprise, Redding, Igo, Ono, Olinda, Cottonwood, Hooker, Mitchell Gulch, and Rosewood quadrangle maps (CNDDDB 2016);
- U.S. Department of Agriculture Natural Resources Conservation Service, Web Soil Survey (NRCS 2017);
- U.S. Fish and Wildlife Service (USFWS) Environmental Conservation Online System Active Critical Habitat Report (USFWS 2016);
- USFWS Information for Planning and Conservation (IPaC) search for Shasta County, generated using the online IPaC database and a general outline of the proposed project area;
- USFWS National Wetlands Inventory (USFWS 2018).
- USGS National Hydrography Dataset, National Map Viewer (USGS NHD 2017); and
- Cornell Lab of Ornithology's eBird database, an online database of bird distribution and abundance (eBird 2017).

1 **Field Surveys**

2 The applicant conducted reconnaissance-level field surveys on February 10–14, 2015. Surveys assessed  
3 project corridors for the presence of special status species and associated suitable habitat, as well as  
4 general wildlife species, migratory birds, plant and noxious weed species, sensitive natural communities,  
5 and the presence of waterways. The “study area” consisted of a 50-foot buffer around the proposed  
6 project corridor centerline. The applicant conducted a follow-up survey for big-scale balsamroot  
7 (*Balsamorhiza macrolepis*) on May 20, 2015, during the species’ blooming season.  
8

9 **Common and Sensitive Natural Communities**

10 The proposed project area is located in the “South Central Region” of Shasta County, as described in the  
11 Shasta County General Plan (Shasta County 2004). The most ecologically significant community in this  
12 region is the Riparian Woodland association, found along the Sacramento River and its tributaries. The  
13 dominant terrestrial habitat within the study area is Blue Oak-Digger Pine Woodland (Sawyer et al.  
14 2009), with a small amount of Northern Yellow Pine Forest located in the northwestern portion of the  
15 proposed project area in the community of Igo. Field surveys did not identify any sensitive natural  
16 communities, and the nearest CNDDDB sensitive natural communities—the Great Valley–Valley Oak  
17 Riparian Forest and Great Valley Willow Scrub—occur along Clear Creek, 3 to 5 miles northeast of the  
18 proposed project area (Tierra ROW 2015a, Appendix D). While no sensitive natural communities occur  
19 within the proposed project area, riparian vegetation does occur along the margins of the larger aquatic  
20 features, including Spring Creek. Sparse riparian vegetation, consisting of white alder (*Alnus rhombifolia*)  
21 and willows (*Salix* spp.), is located near where Spring Creek and Happy Valley Road intersect.  
22

23 **Invasive Species**

24 Surveys identified 24 invasive plant species appearing on the California Department of Food and  
25 Agriculture’s Noxious Weed Species List and/or the California Invasive Plant Council’s (Cal-IPC’s)  
26 Invasive Plant Inventory list. Invasive plants are prevalent throughout the proposed project area, though  
27 most species observed are classified as *Limited* and *Moderate* in their invasiveness by the Cal-IPC,  
28 meaning their statewide ecological impacts range from very minor to substantial and apparent, but  
29 generally not severe (Cal-IPC 2006). Three species with a *High* invasiveness rating, meaning they have  
30 severe ecological impacts on physical processes, plant communities, and vegetation structure, were  
31 observed during surveys: giant reed (*Arundo donax*), found in Spring Creek; yellow-star thistle  
32 (*Centaurea solstitialis*), found throughout the survey area; and Spanish broom (*Spartium junceum*), found  
33 in Central Laverne, along Happy Valley Road, and north of Palm and Olive Streets (Tierra ROW 2015a,  
34 Appendix D).  
35

36 **Jurisdictional Waters**

37 Field surveys identified 29 drainages and eight wetlands in the proposed project area (Tierra ROW 2016b,  
38 Appendix D). All wetlands, with the exception of Wetland A (see Figure 5.9-1), are seasonal, since they  
39 were inundated during February surveys following two weeks of heavy rainfall, and dry during follow-up  
40 surveys in May. Common facultative wetland (FACW)<sup>1</sup> and obligate wetland (OBL)<sup>2</sup> plant species found  
41 within the wetlands include common rush (*Juncus effusus*), common cattail (*Typha latifolia*), sharp-  
42 fruited rush (*Juncus acuminatus*), umbrella sedge (*Cyperus eragrostis*), annual rabbitsfoot grass

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<sup>1</sup> Facultative wetland (FACW) vegetation includes species that usually occur in wetlands (67–99% occurrence rate) but are occasionally found in non-wetlands (USACE 2012).

<sup>2</sup> Obligate wetland (OBL) vegetation includes species that occur almost always (99% occurrence rate) under natural conditions in wetlands (USACE 2012).

1 (*Polypogon monspeliensis*), creeping winter primrose (*Ludwigia peploides*), American speedwell  
2 (*Veronica americana*), and duckweed (*Lemna* spp.) (Tierra ROW 2015b, Appendix D).

3  
4 Although no formal wetland and waterway delineations were completed for the proposed project, all  
5 wetlands observed and identified in this report are potentially state- and federally jurisdictional; each  
6 possesses all three U.S. Army Corps of Engineers (USACE) wetland indicators (wetland hydrology,  
7 wetland vegetation, and hydric soils). All non-wetland waterway crossings, with the exception of the  
8 Happy Valley Ditch and Happy Valley Canal, are considered to be jurisdictional under both the state and  
9 federal Clean Water Acts (CWA). The Happy Valley Ditch and Happy Valley Canal are likely only  
10 jurisdictional under the California CWA, and neither would be impacted by construction activities. ~~As no~~  
11 ~~lake or streambed alteration is planned for the proposed project, a permit from the CDFW would not be~~  
12 ~~required.~~

13  
14 On May 30, 2019, CDFW notified the CPUC of an existing vernal pool (a type of seasonal wetland) in  
15 proximity to the proposed project. On July 9, 2019, CDFW informed the CPUC that the vernal pool is  
16 located within private property, and therefore provided a data point representing an observation of a  
17 vernal pool plant (*Downingia*) from the side of the road. The data point is located on Scout Avenue,  
18 between Telegraph Gulch Road and Olive Street, in the proximity of waterway WW-15 (unnamed  
19 tributary to Telephone Gulch) (see Appendix F).

## 20 21 **Special Status Species**

22 Special status species include plants and animals that are either formally listed under federal or state  
23 endangered species law, or not formally listed but that, in the judgement of the CPUC's qualified  
24 professionals, meet the definitions of endangered, rare, or threatened under CEQA Guidelines Section  
25 15380, such as species considered to be rare by resource agencies, professional organizations (e.g.,  
26 CNPS), local ordinances, and the scientific community. In this document, "special status species" include  
27 the following: species that are listed as "Endangered," "Threatened," "Candidate," or "Proposed" under  
28 the Federal Endangered Species Act (ESA); listed as "Endangered", "Threatened", or "Rare" under the  
29 California ESA; designated as "Watch List," "Fully Protected," or "Species of Special Concern" or  
30 protected under the California Native Plant Protection Act by the CDFW; USFWS "Birds of  
31 Conservation Concern"; or CNPS Rare Plant Ranks 1 and 2.

32  
33 The potential for special status species to occur within the proposed project area was assessed using the  
34 data sources and survey approaches described above. The species that have potential to occur in the  
35 proposed project area are described in Table 5.4-1 as having low, moderate, or high potential to occur.  
36 The likelihood that each special status species would occur in the proposed project area was determined  
37 based on known occurrences and natural history parameters, including, but not limited to, the species'  
38 range, habitat, foraging needs, migration routes, and reproductive requirements according to the following  
39 categories:

- 40  
41 • **High:** CNDDDB or other documentation of occurrence of the species within a 3-mile radius of the  
42 proposed project area. Suitable habitat for foraging and/or breeding is present within the proposed  
43 project area.
- 44 • **Moderate:** CNDDDB or other documentation of occurrence of the species between a 3- and 5-mile  
45 radius of the proposed project area. Suitable habitat for foraging and/or breeding is present within  
46 the proposed project area.
- 47 • **Low:** CNDDDB or other documentation within 10 miles of the proposed project area, but limited  
48 suitable habitat or poor quality habitat for foraging and/or breeding is present within the proposed  
49 project area; or, no CNDDDB or other records within 10 miles of the proposed project area, but  
50 known suitable habitat for foraging and/or breeding is present within the proposed project area.

1

Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
<b>Plants</b>				
Big-scale balsamroot	<i>Balsamorhiza macrolepis</i>	Endemic to California. Occurs in dry, open habitat, mostly in mountainous areas. Mostly found in the western foothills of the Sierra Nevada.	1B.2	Low Potential. Not observed during focused surveys, no CNDDDB occurrences within 10 miles of the proposed project. According to CNPS, presumed to occur in Rosewood quad, south of the proposed project area.
Legenere	<i>Legenere limosa</i>	Occurs in vernal pools; elevation range of 1–2,600 feet. Annual herb, blooms April–June. Many historical occurrences extirpated.	1B.2	Low Potential. All CNDDDB occurrences are located to the east of Interstate 5, with the nearest occurrences ~7 miles northeast of the proposed project area.
Nuttall's ribbon-leaved pondweed	<i>Potamogeton ephydrus</i>	Occurs in marshes and swamps (assorted shallow freshwater); elevation range of 1,300–6,200 feet. Perennial herb, blooms July–August.	2B.2	Moderate Potential. CNDDDB occurrence in a pond, ~5.25 miles north of the proposed project area. Project is below typical elevation range, and only suitable habitat occurs in Wetland A.
Pink creamsacs	<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	Occurs in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland; elevation range of 60–3,000 feet. Annual herb, blooms April–June.	1B.2	Moderate Potential. CNDDDB occurrence within the Olinda quad, ~2.5 miles southeast of the proposed project area. Suitable habitat occurs throughout proposed project area.
Red bluff dwarf rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Occurs in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools; elevation range 100–3,300 feet. Annual herb, blooms March–May.	1B.1	Moderate Potential. Several CNDDDB occurrences within 3 miles of the proposed project area. Nearest population observed, from 2002, approximately 0.30 miles north of the proposed project area, in a vernal pool.
Silky cryptantha	<i>Cryptantha crinita</i>	Occurs in cismontane woodland, lower montane coniferous forest, riparian scrub, riparian woodland, valley and foothill grassland, and gravelly streambeds; elevation range of 100–1,000 feet. Annual herb, blooms April–May.	1B.2	Moderate Potential. Two CNDDDB populations at Olinda Creek and Anderson Creek, found approximately 4.5 miles east of the proposed project area, in dry creek beds. Suitable habitat occurs in Spring Creek.
Slender Orcutt grass	<i>Orcuttia tenuis</i>	Occurs in vernal pools; elevation range of 15–5,800 feet. Annual herb, blooms May–October.	SE, FT, 1B.1	Low Potential. No individuals observed during surveys. All CNDDDB occurrences located to the east of Interstate 5; nearest occurrence ~6.5 miles northeast of the proposed project area.

Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
<b>Insects</b>				
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	Currently, known to occur from southern Shasta County to Fresno County. Dependent on the elderberry plant, found along rivers and streams; requires shrubs with stems of at least one-inch or greater in diameter at ground level.	FT	Low Potential. No elderberry plants observed within the study area during surveys. CNDDDB occurrence from 2006, ~5.5 miles southeast of the proposed project area.
<b>Crustaceans</b>				
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	Conservancy fairy shrimp inhabit rather large, cool-water vernal pools with moderately turbid water. The pools generally last until June. However, the shrimp are gone long before then.	FE	Low Potential. No vernal pools or vernal pool invertebrates were observed during surveys. However, the seasonal emergent wetlands identified in the study area, <u>and the vernal pool identified by CDFW in its comment on the Draft IS/MND,</u> may provide marginally suitable habitat for these species. No CNDDDB occurrences within 10 miles of the proposed project area.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	Occur in a wide variety of ephemeral wetland habitats, and can be found in pools with water temperatures ranging from 50 degrees Fahrenheit to 84 degrees Fahrenheit.	FE	Low Potential. No vernal pools or vernal pool invertebrates were observed during surveys. However, the seasonal emergent wetlands identified in the study area, <u>and the vernal pool identified by CDFW in its comment on the Draft IS/MND,</u> may provide marginally suitable habitat for these species. Several CNDDDB occurrences within 10 miles, with the closest occurrence ~6 miles northeast of the proposed project area.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	Occurs in vernal pools in Oregon and California. Occasionally found in habitats other than vernal pools, such as artificial pools created by roadside ditches. Can be found in densities of approximately 750 shrimp per gallon of water. Each winter, during the rainy season, dry depressions fill up with water and the fairy shrimp hatch	FT	Low Potential. No vernal pools or vernal pool invertebrates were observed during surveys. However, the seasonal emergent wetlands identified in the study area, <u>and the vernal pool identified by CDFW in its comment on the Draft IS/MND,</u> may provide marginally suitable habitat for these species. CNDDDB occurrence from 2004 approximately 2.5 miles south of the proposed project area, in a vernal pool.

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Common Name	Scientific	Description and Habitat	Status	Occurrence
<b>Fish</b>				
Green Sturgeon	<i>Acipenser medirostris</i>	Anadromous species that spend adult lives in ocean and return to freshwater lakes, rivers, and streams to spawn. Spawn in deep pools in large turbulent freshwater river mainstreams, ranging from clean sand to bedrock substrates.	FT	No Potential. There are no CNDDDB occurrences within 10 miles of the proposed project area, and there is no suitable habitat located within the proposed project area.
Central Valley Steelhead (Central Valley Distinct Population Segment)	<i>Oncorhynchus mykiss</i>	Anadromous species that spend adult lives in ocean and return to freshwater lakes, rivers, and streams to spawn. In streams, low-velocity pools are important wintering habitat. Spawning habitat consists of gravel substrates, free of excessive silt.	FT, ST	No Potential. CNDDDB occurrences or USFWS-designated Critical Habitat within Clear Creek, ~0.5 mile north of the proposed project area; however, there is no suitable habitat located within the proposed project area.
Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Anadromous species that spend adult lives in ocean and return to freshwater lakes, rivers, and streams to spawn. Spawning sites typically have larger gravel and more water flow up through the gravel than sites used by other Pacific salmon; also prefer larger and deeper streams.	FT, ST	No Potential. No CNDDDB occurrences or USFWS-designated Critical Habitat in Clear Creek, ~.5 miles north of the proposed project area; however, there is no suitable habitat located within the proposed project area.
<b>Amphibians</b>				
California red-legged frog	<i>Rana draytonii</i>	Inhabits quiet pools of streams, marshes and occasionally ponds; prefers shorelines with extensive vegetation for cover. Feed on aquatic and terrestrial insects, crustaceans, worms, tadpoles, smaller frogs and small mammals.	FT	No potential. There are no CNDDDB occurrences, within 10 miles of the proposed project area, and the proposed project would be outside of the current range of the species.
Western spadefoot toad	<i>Spea hammondi</i>	Occurs in valley and foothill grasslands and river floodplains, in proximity to aquatic resources, or temporary pools, which are required for breeding. Most of the year is spent in burrows; requires loose sandy or gravelly soils for burrowing. Nocturnal.	SSC	Low potential. No individuals identified during surveys; limited suitable habitat in the proposed project area due to development and agricultural practices. Several CNDDDB occurrences 8–10 miles south of the proposed project area in gravelly ephemeral and intermittent pools and washes, as recently as 2014.
Foothill yellow-legged frog	<i>Rana boylei</i>	Occurs in most of northern California west of the Cascade crest, and along the western flank of the Sierras south to Kern	SSC	Low potential. Nearest CNDDDB occurrence 4.5 miles north of the proposed project area. Suitable habitat occurs in and around

Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
		County. Elevation extends from near sea level to 6,365 feet. Found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood conifer, valley-foothill riparian, mixed chaparral, and wet meadow types. Adults eat both aquatic and terrestrial invertebrates.		Spring Creek; however, the lack of perennial waterflow makes it unlikely that this species would occur in the proposed project area.
<b>Reptiles</b>				
Western pond turtle	<i>Emys marmorata</i>	Uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest; elevation ranges from near sea level to 4,700 feet. Associated with permanent or nearly permanent water in a wide variety of habitat types. Require basking sites, such as submerged logs and rocks, with underwater retreats close by.	SSC	Moderate Potential. Nearest CNDDDB occurrence approximately 1.5 miles northeast of the proposed project area, in Clear Creek. Suitable habitat may occur in Spring Creek; however, the lack of perennial aquatic features in the proposed project area makes occurrence of this species unlikely in the proposed project area.
<b>Birds</b>				
Bald eagle	<i>Haliaeetus leucocephalus</i>	Permanent resident and uncommon winter migrant in California, restricted to breeding in several counties, including Shasta. More common at lower elevations; not found in the high Sierra Nevada. Requires large bodies of water, or free flowing rivers with abundant fish, and adjacent snags or other perches for feeding. Perches high in large, stoutly limbed trees, on snags or broken-topped trees, or on rocks near water. Roosts communally in winter in dense, sheltered, remote conifer stands.	SE, FD	Present. Individual observed foraging near the BLM land adjacent to the proposed project. No suitable nesting or foraging habitat present within the proposed project area.
Bank swallow	<i>Riparia</i>	A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast; an uncommon and very local summer resident. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs	ST	Low Potential. No suitable habitat located within the proposed project area. Two CNDDDB occurrences within 10 miles, with the closest occurrence ~7 miles to the east of the proposed project area. According to eBird, majority of sightings near the proposed project area are in the Sacramento River corridor.

Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
		with fine-textured or sandy soils, into which it digs nesting holes. In migration, flocks with other swallows over many open habitats. Feeds predominantly over open riparian areas, but also over brushland, grassland, wetlands, water, and cropland; and uses holes dug in cliffs and river banks for cover.		
Tricolored blackbird	<i>Agelaius tricolor</i>	Common locally throughout Central Valley and in coastal districts from Sonoma Co. south. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs. Feeds in grassland and cropland habitats. Breeds locally in northeastern California. Seeks cover in emergent wetland vegetation, especially cattails and tules; also in trees and shrubs. Roosts in large flocks in emergent wetland or in trees.	SSC	Low Potential. No suitable habitat present in project area. Several CNDDDB occurrences within 5 miles of the proposed project area; however, they all occur within Sacramento River, Cottonwood Creek and Clear Creek corridors, which provide much more suitable habitat than is available in the proposed project area. Majority of eBird sightings focused within Sacramento River corridor.
Northern spotted owl	<i>Strix occidentalis caurina</i>	An uncommon, permanent resident in suitable habitat. In northern California, resides in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats, from sea level up to approximately 7,500 feet. Feeds in forest habitats upon a variety of small mammals, including flying squirrels, woodrats, mice and voles, and a few rabbits. Uses dense, multi-layered canopy cover for roost seclusion.	FT	Low Potential. The proposed project area would not traverse any intact forest that would provide breeding, hibernation, or foraging habitat. No CNDDDB occurrences within 10 miles. There have been no eBird sightings near the proposed project area.
Swainson's hawk	<i>Buteo swainsoni</i>	Uncommon breeding resident and migrant in the Central Valley; breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Roosts in large trees, but will roost on ground if none available.	ST	Low potential. Suitable foraging habitat in the open fields and grasslands adjacent to the proposed project area; however, there is no suitable breeding habitat in the proposed project area. There are no CNDDDB occurrences within 10 miles of the proposed project. Several eBird sightings within 10 miles of the proposed project area; however,



Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
				they are all within the Sacramento River corridor.
<b>Mammals</b>				
Fisher	<i>Pekania pennanti</i>	Occurs in intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percent canopy closure. Use cavities in large trees, snags, logs, and rock areas for shelter, as well as mature dense stands of trees providing cover in winter.	F-proposed, S-Candidate	Low Potential. Nearest CNDDB occurrence, ~5 miles north of the proposed project area. However, no suitable, intact, forest habitat present in the proposed project area.
Pallid bat	<i>Antrozous pallidus</i>	Locally common species of low elevations in California. A wide variety of habitats is occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Prefers rocky outcrops, cliffs, and crevices with access to open habitats rare for foraging. Nocturnal; hibernates.	SSC	Moderate Potential. No suitable roosting habitat within the proposed project area; however, there is suitable foraging habitat present within and adjacent to the proposed project area. Nearest CNDDB occurrence is under the Brady Creek Bridge (~7 miles north of the proposed project area), 7 adults observed roosting in July 2002, and 1 juvenile observed roosting in August 2002.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	This species is found in all but subalpine and alpine habitats, and may be found at any season throughout its range. Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. May use separate sites for night, day, hibernation, or maternity roosts. Bats at hibernacula from October to April.	S-Candidate, SSC	Moderate Potential. No suitable roosting habitat within the proposed project area; however, there is suitable foraging habitat present within and adjacent to the proposed project area. There were two CNDDB occurrences in the Igo quad, ~5 miles north of the proposed project area (1997 and 2002); both occurred at mine sites.
Western red bat	<i>Lasiurus blossevillei</i>	Locally common in some areas of California, occurring from Shasta Co. to the Mexican border, west of the Sierra Nevada/Cascade crest. There is migration between summer and winter ranges, and migrants may be found outside the normal range. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Feeds over a wide variety of	SSC	Moderate Potential. There is suitable foraging habitat present within and adjacent to the proposed project area. Nearest CNDDB occurrence is ~4.5 miles, from the proposed project area (2002). Suitable roosting habitat exists within and adjacent to the proposed project area.

Table 5.4-1 Special Status Species with the Potential to Occur within the Proposed Project Area

Common Name	Scientific	Description and Habitat	Status	Occurrence
		habitats including grasslands, shrublands, open woodlands and forests, and croplands. Prefers edges or habitat mosaics that have trees for roosting and open areas for foraging.		

Sources: CNDDB 2016; USFWS 2016; CNPS 2018; eBird 2017

Status explanations:

Federal (F)

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.

State (S)

- E = listed as endangered under the California Endangered Species Act.
- T = listed as threatened under the California Endangered Species Act.

- SSC = species of special concern in California.
- 1B.1 = Rare, threatened, or endangered in California and elsewhere. Extremely endangered in California.
- 1B.2 = Rare, threatened, or endangered in California and elsewhere. Moderately endangered in California.

Key:

- CNDDB California Natural Diversity Data Base
- CNPS California Native Plant Society
- USFWS U.S. Fish and Wildlife Service

1  
2 **5.4.2 Regulatory Setting**

3  
4 **Federal**

5 **Federal Endangered Species Act.** Enacted to protect threatened and endangered (T&E) species and the  
6 ecosystems upon which they depend, the ESA (16 U.S. Code [U.S.C.] 1531 *et seq.*) is administered by the  
7 USFWS and the U.S. National Oceanic and Atmospheric Administration. The ESA makes it unlawful to  
8 harm a species listed as threatened or endangered or its habitat without a permit. Doing so would be  
9 considered a “take,” which is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture,  
10 collect, or attempt to engage in any such conduct.” Section 7 of the ESA requires a federal agency to  
11 consult with the USFWS when any action it carries out, funds, or authorizes may affect a listed T&E  
12 species. For projects that are not carried out, funded, or authorized by a federal agency, Section 10 of the  
13 ESA allows the USFWS to issue a permit to the project proponent to take listed T&E species incidental to  
14 otherwise legal activity.

15  
16 **Migratory Bird Treaty Act.** The Migratory Bird Treaty Act (MBTA) makes it illegal to “pursue, hunt,  
17 take, capture, kill, attempt to take, capture, kill, possess, sell, and barter” native migratory bird species  
18 without a permit. The MBTA (16 U.S.C. §§ 703–712) was enacted in response to declines of migratory  
19 bird populations from uncontrolled commercial uses. The MBTA is a multi-national effort to protect  
20 migratory birds and extends to almost all migratory birds. The MBTA covers 836 species, including 58  
21 that may be legally hunted. The MBTA excludes non-migratory birds (e.g., quail, turkeys, etc.) and non-  
22 native species.

23  
24 **Clean Water Act.** The CWA (33 U.S.C. 1251 *et seq.*) regulates discharge of pollutants into the waters of  
25 the U.S. with the objective of restoring and maintaining the chemical, physical, and biological integrity of  
26 the nation’s waters. Under Section 404 of the CWA, the USACE is authorized to regulate the discharge of  
27 fill or dredged material into waters of the U.S., which includes wetlands. Wetlands are defined as lands  
28 that are “inundated or saturated by surface or ground water at a frequency or duration sufficient to  
29 support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life

1 in saturated soil conditions” (33 Code of Federal Regulations 328.3; 40 Code of Federal Regulations  
2 230.3). The USACE requires a project proponent to obtain a Section 404 Nationwide or Individual Permit  
3 if the project proposes to dredge or fill waters that fall within the jurisdiction of the CWA.

4  
5 Section 401 of the CWA stipulates that a federal agency cannot issue a permit or license for an activity  
6 that may result in a discharge to waters of the U.S. unless the state or tribe where the discharge would  
7 originate has granted or waived Section 401 water quality certification. The state or tribe may grant, grant  
8 with conditions, deny, or waive certification. In California, the Regional Water Quality Control Boards  
9 administers the Section 401 Water Quality Certification Program. Section 401 certification is required  
10 before the USACE may issue a Section 404 permit for discharge of dredged or fill material into waters of  
11 the U.S. Many states, including California, rely on Section 401 certification as a primary regulatory tool  
12 for protecting wetlands and other aquatic resources.

### 13 **State**

14  
15 **California Endangered Species Act (CESA).** The CESA (California Fish & Game Code Section 2050,  
16 *et seq.*) establishes legal protection for state-listed threatened and endangered plants and wildlife under  
17 the purview of the CDFW. The CDFW also identifies Species of Special Concern, which are those that  
18 may become listed as threatened or endangered due to loss of habitat, limited distributions, and  
19 diminishing population sizes or because the species is deemed to have scientific, recreational, or  
20 educational value. Any project that proposes to impact a CESA species or California Species of Special  
21 Concern requires consultation with the CDFW. California Fish and Game Code Section 2081 provides a  
22 permit process for incidental take of species listed as T&E pursuant to CESA when certain permit  
23 conditions are met.

24  
25 **California Fish and Game Code, Sections 1600–1603.** This statute regulates activities that would  
26 “substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of,  
27 or use material from the streambed of a natural watercourse” that supports fish or wildlife resources. A  
28 stream is defined as a body of water that flows at least periodically or intermittently through a bed or  
29 channel having banks and that supports fish or other aquatic life, including watercourses having a surface  
30 or subsurface flow that supports or has supported riparian vegetation. The CDFW has jurisdiction over  
31 any activities regulated under Sections 1600–1603. If fish or wildlife may be substantially adversely  
32 affected, a Streambed Alteration Agreement, providing for implementation of measures to protect fish  
33 and wildlife resources, may be required by the CDFW for any project within the purview of this statute.

34  
35 **California Fish and Game Code, Sections 3503, 3503.5, 3511, and 5050.** The CDFW has jurisdiction  
36 over all California wildlife, fish, plants—including threatened and endangered and other special status  
37 species—and their habitats. CDFW Code Section 3503 specifies the following general provision for  
38 birds: “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as  
39 otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 states that it is  
40 “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds-of-prey)  
41 or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code  
42 or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season that  
43 results in the incidental loss of fertile eggs or nestlings, or otherwise leads to nest abandonment, is  
44 considered a take. Disturbance that causes nest abandonment and/or loss of reproductive effort is also  
45 considered a take by the CDFW. Sections 3511 and 5050 prohibit the taking and possession of birds and  
46 reptiles listed as “fully protected.” Any potential impact on avian species requires consultation with the  
47 CDFW.

48  
49 **California Environmental Quality Act Guidelines Section 15380.** CEQA Guidelines Section 15380(d)  
50 provides that a species not listed on the federal or state list of protected species may be considered rare or  
51 endangered if the species can be shown to meet certain specified criteria. A species may be considered

1 “endangered” when its survival and reproduction in the wild are immediately threatened or “rare” when  
2 the species exists in such small numbers or in only a small portion of its range so that it may become  
3 endangered if the conditions of its habitat worsen. Non-listed species that may be considered by CEQA  
4 include, but are not limited to, plants categorized by the CNPS as rare or endangered (including species  
5 considered rare and endangered only in California) or any plants considered locally or regionally  
6 significant by local governments or agencies. Because CEQA does not limit the discussion of impacts to  
7 species listed as threatened or endangered by either the federal or state governments, biological impacts  
8 are assessed and mitigation measures are assigned on a case-by-case basis, accounting for the scope of the  
9 project, the specifics of the site, and the individual species in question, among other factors.

## 10 11 **Local**

12 **Shasta County General Plan.** The Fish and Wildlife Habitat element of the General Plan contains  
13 policies and objectives aimed at addressing the need to preserve unique and important aquatic fish and  
14 wildlife habitats, and plant communities for their biological resource and ecological values, as well as for  
15 their direct and indirect benefits to the citizens of Shasta County. Key resource protection strategies  
16 discussed within the General Plan include fisheries and riparian habitat management for the Sacramento  
17 River, protection of waterway corridors, protection of wetland resources, and avoiding fragmentation and  
18 isolation of habitats. Objectives and policies relevant to the wetlands and waterways in the proposed  
19 project area are contained in Water Resources Element, and are discussed further in Section 5.9,  
20 “Hydrology and Water Resources”. The following objectives and policies would apply to the proposed  
21 project:

- 22
- 23 • *Objective FW-2: Provide for a balance between wildlife habitat protection and enhancement and*  
24 *the need to manage and use agricultural, mineral extraction, and timberland resources.*
- 25 • *Policy FW-a: Significant wildlife habitat resources, as discussed in the Plan text, when not*  
26 *otherwise classified as Timberland (T), Cropland (A-C), or Grazing (A-G) shall be classified on*  
27 *the General Plan maps as Natural Resources Protection-Habitat (N-H).*
- 28 • *Policy FW-b: Recognition that classification of some fish, wildlife, and vegetation resources*  
29 *designated and used as Timberlands, Mineral Resource, Croplands, or Grazing lands does, in*  
30 *most cases, protect habitat resources. However, if there is a conflict, the timber, mineral*  
31 *extraction, or agricultural land use classifications mentioned above shall prevail in a manner*  
32 *consistent with State and Federal laws.*
- 33 • *Policy FW-c: Projects that contain or may impact endangered and/or threatened plant or animal*  
34 *species, as officially designated by the California Fish and Game Commission and/or the U. S.*  
35 *Fish and Wildlife Service, shall be designed or conditioned to avoid any net adverse project*  
36 *impacts on those species.*
- 37 • *Policy FW-h: The County shall encourage efforts to develop tree protection standards which*  
38 *focus on the County's differing land use types, namely: lowland urban, upland urban, rural*  
39 *residential and resource lands. Urban tree protection standards shall focus on landscaping that*  
40 *promotes energy conservation and design aesthetics, as opposed to preserving native vegetation.*

## 41 **5.4.3 Environmental Impacts and Mitigation Measures**

42 The impact analysis below identifies and describes the proposed project’s potential impacts on biological  
43 resources in the proposed project vicinity. Potential impacts were evaluated according to significance  
44 criteria based on the checklist items presented in Appendix G of the CEQA Guidelines and listed at the  
45 start of each impact analysis section below. Both the construction and maintenance/operations phases  
46 were considered; however, because the construction phase could result in physical changes to the  
47 environment, analysis of construction phase effects warranted a more detailed evaluation. Aboveground

1 components of the proposed project would include seven equipment cabinets at DLC sites. The  
2 equipment cabinets would measure approximately 2 by 3 by 4 feet, and each cabinet would be surrounded  
3 by approximately 20 square feet of gravel. Operations and maintenance efforts associated with the DLC  
4 sites would be minimal and would be restricted to occasional visits by TDS technicians to check on  
5 equipment and to connect or disconnect customers. The proposed DLC sites would not be located in sites  
6 that would substantially affect any species identified as a candidate, sensitive, or special status species, or  
7 have a substantial adverse effect on state or federally protected wetlands, including but not limited to  
8 those defined by Section 404 of the CWA. The fiber optic cables would be placed in buried conduit  
9 within ROW on existing roads. Post-construction, the conduit would be restored to its original contour  
10 and where necessary, vegetation would be restored in a manner consistent with County and/or California  
11 Department of Transportation standards. Once installed, the cable would not require regular maintenance  
12 as part of normal operating procedures.

13  
14 The proposed project would not occur within the boundaries of any Habitat Conservation Plan, Natural  
15 Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.  
16 There would be no impact under criterion (f), and a detailed discussion is therefore not provided for this  
17 criterion.

### 18 **Applicant Proposed Measures**

19  
20 The applicant would implement the following applicant proposed measures (APMs) to minimize or avoid  
21 potential impacts on biological resources. **APM BIO-1** is not discussed in the impact analysis because the  
22 measure has already been incorporated into the project design and it is categorized as a project design  
23 feature (PDF) in Chapter 4. Mitigation Measure (MM) GEN-1 requires implementation of these APMs to  
24 mitigate impacts on biological resources and the impact analysis in this section applies these APMs to  
25 reduce impacts. A list of all proposed project APMs is included in Table 4-2 in Chapter 4.

26  
27 **APM BIO-2:** Bore pits will be placed a minimum distance of 5 m (16 feet) beyond either the top of  
28 waterway banks or the maximum extent of any vegetation present along the waterways'  
29 margins.

30  
31 **APM BIO-3:** Bore pits will be placed a minimum distance of 76 m (250 feet) beyond either the edge of  
32 seasonal wetlands or the maximum extent of any vegetation present along the wetlands'  
33 margins.

34  
35 **APM BIO-4:** A SWPPP will be developed and will include BMPs that will be implemented during  
36 construction to minimize or eliminate sediment transport from areas subject to ground  
37 disturbance.

38  
39 **APM BIO-5:** All orchards will be avoided during construction.

40  
41 **APM BIO-6:** No trees will be removed during project construction. If vegetation trimming is required  
42 to complete the installations, trimming will be kept to the absolute minimum necessary.  
43

1 **Significance Criteria**

2 Table 5.4-2 describes the significance criteria from Appendix G of the CEQA Guidelines' biological  
3 resources section, which the CPUC used to evaluate the environmental impacts of the proposed project.  
4

Table 5.4-2 Biological Resources Checklist

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5  
6 **a. Would the project have a substantial adverse effect, either directly or through habitat**  
7 **modifications, on any species identified as a candidate, sensitive, or special status species in local**  
8 **or regional plans, policies, or regulations, or by the California Department of Fish and Game or**  
9 **U.S. Fish and Wildlife Service?**

10  
11 **Special Status Plants.** The proposed project would be installed along an existing ROW within the bed or  
12 shoulder of established roadways. While surveys did not identify any special status plants in the proposed  
13 project area, special status plants such as red bluff dwarf rush, silky cryptantha, and slender Orcutt grass  
14 have a potential to occur within certain ephemeral wetlands along the proposed project route, and  
15 Nuttall's ribbon-leaved pondweed has a moderate potential to occur in Wetland A. While all wetlands  
16 will be bored beneath and avoided during construction, wetlands may be indirectly impacted by  
17 construction activities. Invasive plant species are present throughout the proposed project area, and

1 although the proposed project would be built solely within the existing ROW, special status plants in the  
2 proposed project area could be impacted if invasive plants are spread into areas of native vegetation.  
3

4 To minimize these potential impacts, the applicant would implement the following APMs. **APM BIO-2**  
5 and **APM BIO-3** would ensure that bore pits are placed a minimum distance (16 feet for waterways and  
6 250 feet for wetlands) beyond either the top of banks or the maximum extent of any riparian vegetation  
7 present along wetland and waterway margins. In addition, **APM BIO-4** would require a Stormwater  
8 Pollution Prevention Plan (SWPPP) to be developed, which would include best management practices  
9 (BMPs) that would minimize or eliminate sediment transport from areas subject to ground disturbance  
10 (e.g., bore pits and trenches). **APM GEO-3** would ensure that no construction-related materials, wastes,  
11 spills, or residues would be discharged from the proposed project into adjacent wildlife habitat. **APM**  
12 **GEO-4** would require the applicant to stage all materials, equipment, and excavation spoils outside of  
13 drainages, and **APM GEO-5** would ensure that all excavated or disturbed soils would be kept within a  
14 controlled area surrounded by a perimeter barrier, preventing sediment transport into riparian areas or  
15 aquatic features and minimizing the spread of invasive plant propagules. With the implementation of  
16 these APMs, impacts on special status plant species, if present, would be less than significant.  
17

18 **Nesting Birds.** No nests were observed within the biological study area during surveys. However, areas  
19 adjacent to the project corridors and the study area contain trees and other vegetation that may be utilized  
20 by special status bird species (Tierra ROW 2015a, Appendix D). If birds nest in or near construction areas  
21 prior to or during construction, nesting birds may be impacted. Vegetation clearing may directly impact  
22 nests or nestlings. Dust and noise from construction activities could indirectly impact nesting birds. As a  
23 result, these impacts would have a potentially significant impact on nesting birds.  
24

25 To reduce these potential impacts, the applicant would implement the following. **APM BIO-6**, which  
26 would ensure that no trees are removed as part of the proposed project and that vegetation clearing is  
27 minimized. **APM AQ-1** would reduce the potential for fugitive dust by requiring the stabilization of  
28 disturbed areas and unpaved roads using water or dust suppressants. **APM NOI-1** would limit  
29 construction to the hours of 7 AM to 7 PM, reducing the chance that birds could be disturbed from a nest  
30 at night when cooler temperatures could threaten eggs' viability.  
31

32 Even with implementation of **APM BIO-6**, **APM AQ-1**, and **APM NOI-1**, noise, dust, and human  
33 presence associated with construction activities could prevent adult birds from successfully incubating  
34 eggs or attending to chicks in nests adjacent to construction areas, which would be a significant impact.  
35 The applicant would implement **MM BIO-1**, which outlines measures to avoid impacts to nesting birds.  
36 With implementation of **APM BIO-6**, **APM AQ-1**, **APM NOI-1**, and **MM BIO-1**, impacts on nesting  
37 birds would be reduced to less than significant.  
38

39 **Amphibians and Reptiles.** There is a potential for foothill yellow-legged frog to occur in or around  
40 Spring Gulch and Telephone Gulch; however, due to these features being ephemeral, they are unlikely to  
41 support this species of frog. The nearest CNDDDB occurrences are 4.5 to 5 miles north of Igo, at higher  
42 elevations and in more developed stream corridors than are present in the proposed project area. Minimal  
43 suitable habitat for western spadefoot occurs in the proposed project area, due to grazing and other  
44 agricultural practices, development, and roadways (Shedd 2016). In addition, the nearest CNDDDB  
45 occurrences since 2006 are more than 8 miles away from the proposed project area, to the south and east.  
46 While the proposed telecom line would be directionally drilled under all wetland and waterway features,  
47 these amphibians could be run over by construction equipment if they were to migrate into upland areas  
48 around the aquatic features during construction. In addition, construction activities could contribute to  
49 dust and increased runoff and chemical pollution that could degrade water and habitat quality. These  
50 impacts would be potentially significant.  
51

1 To reduce potential impacts on amphibians and reptiles, the applicant would implement the following  
2 APMs. **APM BIO-2** and **APM BIO-3** would provide for minimum bore pit setbacks from water bodies.  
3 These APMs would ensure that direct impacts due to collision would be unlikely, as would any runoff  
4 from project-related activities into these aquatic features. **APM BIO-4** would require the applicant to  
5 prepare a SWPPP to be implemented during construction, which would contain BMPs to minimize  
6 sedimentation and runoff into aquatic habitat. **APM BIO-5** would ensure that no construction activities  
7 occur in any orchards in the proposed project area, reducing the potential to impact western spadefoot.  
8 The applicant would also implement **APM GEO-2** and **APM GEO-3**, which require the preparation of a  
9 SWPPP that outlines BMPs to control discharges from construction areas and would ensure that no  
10 construction-related materials, wastes, spills, or residues would be discharged from the proposed project.  
11 **APM GEO-4**, **APM GEO-5**, and **APM GEO-6** would require the contractor to stage materials,  
12 equipment, and excavation spoils outside of drainages; enact erosion control; and cover stockpiled  
13 materials, respectively. In addition, **APM AQ-1** sets a maximum vehicle speed of 15 miles per hour for  
14 all construction-related vehicles on unpaved surfaces, reducing the risk of collision with wildlife. **APM**  
15 **NOI-1** would limit construction to 7am and 7pm, which would reduce the potential to impact western  
16 spadefoot, a nocturnal species. These APMs would reduce direct and indirect impacts on western  
17 spadefoot and foothill yellow-legged frog to less than significant.

18  
19 **Mammals.** Construction activities have the potential to directly and indirectly impact western red bats  
20 roosting in trees and/or shrubs in the proposed project area. Tree trimming could directly impact roosting  
21 bats, and construction noise and dust could indirectly impact roosting bats.

22  
23 To avoid or minimize these potential impacts, the applicant would implement **APM BIO-6**, which would  
24 ensure that no trees are removed as part of the proposed project. **APM AQ-1** would reduce the potential  
25 for fugitive dust by requiring the stabilization of disturbed areas and unpaved roads using water or dust  
26 suppressants. **APM NOI-1** would ensure that construction has no impact on foraging bats, restricting  
27 construction equipment operation to the hours between 7 a.m. and 7 p.m., outside of the nocturnal bats'  
28 foraging time. With the implementation of these APMs, impacts on mammals would be less than  
29 significant.

30  
31 **Fish.** There are no suitable waters able to sustain any special status fish populations in the proposed  
32 project area, and no aquatic habitat would be impacted by the proposed project; therefore, there would be  
33 no impact on special status fish populations.

34  
35 **MM GEN-1** would ensure that the applicant would implement all proposed APMs.

36  
37 **Significance: Less than significant with mitigation.**

38  
39 *b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive*  
40 *natural community identified in local or regional plans, policies, and regulations, or by the*  
41 *California Department of Fish and Game or U.S. Fish and Wildlife Service?*

42  
43 No sensitive natural communities were identified during field surveys. Limited riparian habitat exists  
44 along the margins of several wetlands and waterways in the proposed project area. Riparian vegetation  
45 could be indirectly impacted by runoff, dust, sedimentation, or chemical spills from an adjacent  
46 construction area.

47  
48 Direct impacts on sensitive natural communities would be avoided with implementation of **APM BIO-2**  
49 and **APM BIO-3**, which requires the applicant to completely avoid wetlands and waterways and their  
50 associated riparian vegetation during telecom line installation through the use of horizontal boring and  
51 bore pit setbacks. Indirect impacts on sensitive natural communities would be minimized through the  
52 implementation of **APM BIO-4**, which requires a SWPPP to be developed that would include BMPs to



1 minimize or eliminate sediment and pollution transport from construction areas into riparian habitat.  
2 These APMs made mandatory under MM GEN-1 would ensure that any impacts on riparian habitat  
3 would be less than significant.

4  
5 **Significance: Less than significant.**

6  
7 *c. Would the project have a substantial adverse effect on state or federally protected wetlands*  
8 *(including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling,*  
9 *hydrological interruption, or other means?*

10  
11 A vernal pool (identified as O<sub>1</sub> on Figure 4-2B) located on Scout Avenue, between Telegraph Gulch and  
12 Olive Street, is within 250 feet of a proposed boring location. However, APM BIO-3 (brought forward as  
13 mandatory mitigation under mitigation measure [MM] GEN-1), states the following: “Bore pits will be  
14 placed a minimum distance of 76 m (250 feet) beyond either the edge of seasonal wetlands or the  
15 maximum extent of any vegetation present along the wetlands’ margins.” In compliance with this  
16 mitigation requirement, boring pits in the vicinity of the vernal pool will need to be relocated outside of  
17 the 250-foot buffer zone to ensure that bore pits are located at least 250 feet away from the vernal pool.

18  
19 The CPUC sent a letter to the applicant requesting confirmation that the relocation of boring sites  
20 proposed within 250 feet from the vernal pool point location on Scout Avenue, between Telegraph Gulch  
21 Road and Olive Street, in compliance with APM BIO-3, was feasible. The applicant responded  
22 confirming the feasibility of relocating those proposed boring pit sites in order to comply with APM BIO-  
23 3 (see Appendix F).

24  
25 Thus, as required by APM BIO-3, the proposed project would avoid all potentially jurisdictional aquatic  
26 features, including the newly identified vernal pool, through the use of directional drilling and bore pit  
27 setbacks. Therefore, there would be no direct impacts to state or federally protected wetlands. However,  
28 wetlands could be indirectly impacted by runoff, dust, sedimentation, or chemical or other releases (such  
29 as from frac-out or human-caused equipment error) spills from an adjacent construction area, which could  
30 degrade water quality. Frac-out (inadvertent release of drilling lubricants) is a potential concern when  
31 Horizontal Directional Drilling (HDD) is used near aquatic features. The HDD procedure uses bentonite  
32 slurry, a fine clay material, as a drilling lubricant. The bentonite is non-toxic and commonly used in  
33 farming practices; however, benthic invertebrates, aquatic plants, and fish and their eggs could be  
34 smothered by the fine particles if bentonite were released and entered a wetland area.

35  
36 To minimize or avoid these potential impacts, the applicant would implement APM BIO-2 and APM  
37 BIO-3 to ensure that all waterways and wetlands in the proposed project area would be completely  
38 avoided during construction through the use of directional drilling and bore pit setbacks. APM BIO-4  
39 would require development of a SWPPP that would include BMPs that would minimize or eliminate  
40 sediment and pollution transport from construction areas into adjacent wetlands. As indicated in Table 1-1  
41 “Required Permits and Approvals” in Section 1.0, the applicant should coordinate with CDFW to  
42 determine if a notification and a Lake Streambed Alteration Agreement (LSAA) would be required,  
43 pursuant to Fish and Game Code 1600, prior to construction. An LSAA may result in additional measures  
44 to further protect aquatic resources under the jurisdiction of CDFW. Additionally, a SWPPP, per APM  
45 GEO-2, requires the use of site-specific best management practices during construction, including, where  
46 applicable, contingency plans to address releases. APM GEO-3 would ensure that no construction-related  
47 materials, wastes, spills, or residues would be discharged from the proposed project. APM GEO-4, APM  
48 GEO-5, and APM GEO-6 would require the contractor to stage materials, equipment, and excavation  
49 spoils outside drainages, as well as ensure that excavated or disturbed soils are controlled by a perimeter  
50 barrier (e.g., silt fencing, hay bales, straw wattles, etc.), reducing the risk of runoff and sedimentation.  
51 These APMs are mandatory per MM GEN-1, and therefore would ensure that any impacts on state or  
52 federally protected wetlands would be less than significant during construction.

1  
2 **Significance: Less than significant.**

3  
4 *d. Would the project interfere substantially with the movement of any native resident or migratory*  
5 *fish or wildlife species or with established native resident or migratory wildlife corridors, or impede*  
6 *the use of native wildlife nursery sites?*

7  
8 Impacts from the proposed project would be short term and minor. The telecom line would be installed  
9 underground, and silt fencing and construction fencing would be in place temporarily during construction,  
10 leaving little permanent, aboveground infrastructure that could impede the migration of terrestrial wildlife  
11 or birds. Construction activities would not impact aquatic features with a potential to contain any  
12 migratory fish. The proposed project would not impact any wildlife nursery sites. Therefore, impacts to  
13 the movement of migratory fish or wildlife species or wildlife nursery sites during construction would be  
14 less than significant.

15  
16 **Significance: Less than significant.**

17  
18 *e. Would the project conflict with any local policies or ordinances protecting biological resources,*  
19 *such as a tree preservation policy or ordinance?*

20  
21 The proposed project would be consistent with the Shasta County General Plan and would not conflict  
22 with any local ordinances or policies protecting biological resources during project construction or  
23 operation.

24  
25 **Significance: No impact.**

26  
27 **Mitigation Measures**

28 **MM BIO-1: Nesting Birds Avoidance.** Should construction activities take place between February 1 and  
29 August 31, a CPUC-approved qualified biologist shall conduct a preconstruction survey to identify active  
30 nests with the potential to be disturbed by construction within seven days of the onset of construction in  
31 areas within 200 feet of potential nesting bird habitat. Should active nests be detected within 200 feet of a  
32 construction area, the biologist will establish a buffer around the nest large enough to ensure that  
33 construction will not disturb the nesting pair. The buffer limits shall be identified where they meet the  
34 construction area using flagging or signage. If construction must take place within the buffer (e.g., the  
35 nest cannot be bored underneath and avoided), the biologist shall monitor the nesting pair for signs of  
36 disturbance for as long as construction activities remain within buffer limits. If the nesting pair shows  
37 signs of disturbance, the biologist will halt construction activities within the buffer until the pair exhibits  
38 normal behavior. If, in the biologist's best judgement, the presence of construction may threaten nest  
39 success, construction activities will be prohibited within the buffer until the nest is no longer active.  
40 Should construction activities in a given area lapse for more than seven days, the biologist shall re-survey  
41 that area. Results of surveys shall be submitted to the CPUC within one week of completion. The  
42 applicant shall ensure that all pre-construction survey results be sent to CDFW at: California Department  
43 of Fish and Wildlife, Attn: CEQA, 601 Locust Street, Redding, CA 96001.  
44