

## 4.4 Biological Resources

### 4.4.1 Setting

Setting information in this document was compiled from: field reconnaissance of the Proposed Project, Weed Segment, alternative alignments project areas (i.e. study area) (see Figure 3-1); review of the Proponent's Environmental Assessment (PEA) (PacifiCorp, 2005)<sup>1</sup>; in-depth surveys (PacifiCorp, 2006; GeoEngineers, 2007); peer-reviewed scientific literature; and resource agency (U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG)) websites and databases. Additionally, a field reconnaissance was conducted on June 30, 2006, by Thomas Roberts, Certified Wildlife Biologist.

### Natural Communities and Wildlife Habitats

Biological resources are determined largely by vegetation communities, by the related, but not identical wildlife habitats, and the presence of wetlands for aquatic fauna. Vegetation communities are assemblages of plant species that occur together in the same area and are defined by species composition and relative abundance. *A Manual of California Flora* (Sawyer and Keeler-Wolfe, 1995) was used to classify the vegetation communities or "series" in the study area to the extent feasible. Several vegetation communities found within the study area do not fit into the classification system developed by Sawyer and Keeler-Wolfe, but do correlate generally with wildlife habitat types classified using CDFG's *A Guide to Wildlife Habitats of California* (Mayer and Landenslayer, 1988). The wildlife habitat types are the more general and useful classification for CEQA documents and are used in Figure 4.4-1 and in the discussion which follows.

The Proposed Project, Weed Segment, and alternative are generally located in central Siskiyou County and regionally within the Upper Shasta Valley of the Cascade Ranges ecological region (U.S. Forest Service, 2005). Soils in the study area are reported to be deep, well-drained and highly permeable having a slightly acid reaction (i.e., pH levels of 6.0-7.0) (Mayer and Landenslayer, 1988). The annual precipitation is 23.6 inches per year and is mostly snow in the winter. The elevation of the study area is approximately between 3,430 and 3,460 feet above sea level.

The study area is a diverse mixed conifer/pine woodland, or "Eastside Pine," although this area is just west of the extent of Eastside Pine as mapped by Mayer and Landenslayer (1988). Ponderosa pine (*Pinus ponderosa*) is the dominant tree species in this habitat type and further characterized by short to moderate height ponderosa/yellow pine (*Pinus ponderosa*), Jeffrey pine (*Pinus jeffreyi*), incense-cedar (*Calocedrus decurrens*), and western juniper (*Juniperus occidentalis*). Undergrowth shrubs include big sagebrush (*Artemisia tridentata*), antelope bitterbrush (*Purshia tridentata*), ceanothus (*Ceanothus spp.*), and rubber rabbitbrush (*Chrysothamnus nauseosus*). Primary herbaceous plants include mule ears (*Wyethia spp.*) and arrowleaf balsamroot (*Balsamorhiza sagittata*). Undergrowth grasses include Idaho fescue (*Festuca idahoensis*), bottlebrush squirreltail (*Elymus elymoides*), and bluebunch wheatgrass (*Pseudoroegneria spicata*)

<sup>1</sup> Many references cited in the PEA are repeated here with attribution directly to the original sources.

(GeoEngineers, 2007). Along the transmission line rights-of-way, vegetation management generates brush fields and brushpiles which, although retarding development of old growth, provides niches not available under more closed canopy.

The Proposed Project is further characterized by the presence of a large inclusion of Wet Meadow within the Eastside Pine type. Wet Meadows, as described by Mayer and Laudenslayer (1988), are characterized by several genera common to this type throughout the State: *Agrostis*, *Carex*, *Danthonia*, *Juncus*, *Salix*, and *Scirpus*. And while the eastern portion of the new 1.2 mile ROW is generally drier with soils suitable for small mammal burrows, most of the meadow is perennially too wet to support a large population of raptor prey species, even though raptors are frequently observed soaring there.

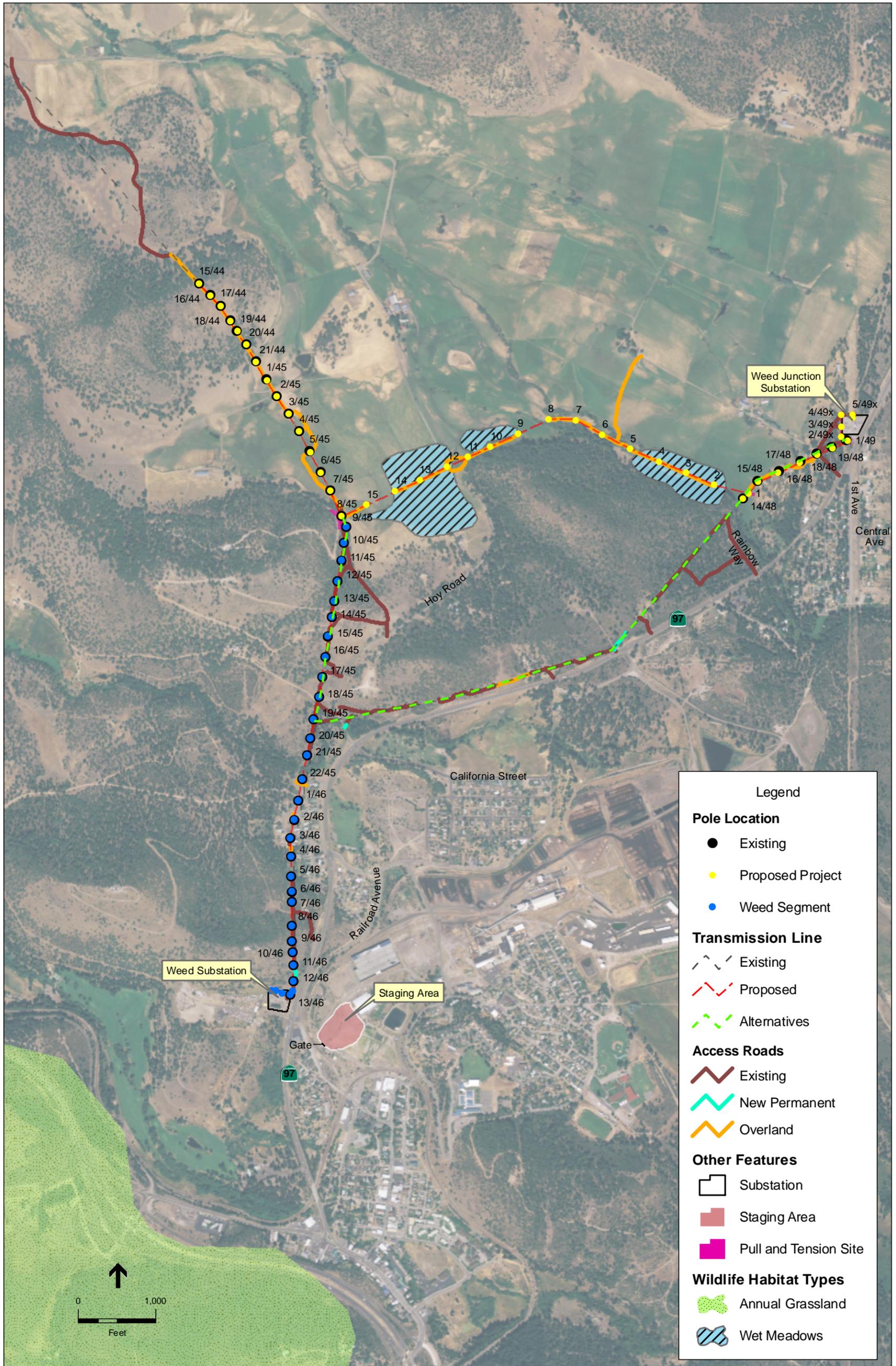
The Weed Segment can be differentiated from the Proposed Project by the close interspersed of different habitats characterizing the area as whole: Beughton Creek at the northern end has well developed riparian vegetation, with an upper border of dense blackberry (*Rubus*) and manzanita (*Arctostaphylos*) and, further south, the corridor comprises Eastside Pine in several variations of canopy closure and shrub understory, as well as annual grassland in the vicinity of the Weed Substation.

The Weed Substation is clear of vegetation within the fence lines; however, the area is surrounded by vegetation that is weedy or “ruderal,” comprising such low growing and hardy species as perennial rye (*Lolium perenne*), turkey mullein (*Eremocarpus setigerus*) and plantain (*Plantago* spp.) and a few sparse native shrubs. These areas do not provide habitat for any special-status species other than possibly transient individuals. The expansion area and the four-acre staging area (located at Roseburg Forest Products plant across Railroad Avenue) are already cleared of most vegetation. No significant impacts to vegetation, special-status plants, or wildlife would occur from the proposed upgrade of the Weed Substation, which would include an expansion of the existing substation footprint; therefore the potential for impacts on biological resources at this site will not be considered further in this analysis.

The alternatives (i.e. PacifiCorp Option 4, Mackintosh/ALJ Variation A, and Mackintosh/ALJ Variation B) would be implemented within the study area and are within the same habitats. However, the ROW northeast of Beughton Creek has an interspersed of Bitterbrush and Eastside Pine which supports a diverse biota with a multiplicity of niches, from friable soils for small and medium-sized mammals, to important browse species for deer, to large diameter conifers with broken tops and robust lateral limbs, providing optimum nesting substrate for large birds.

## **Jurisdictional Waters of the U.S., including Wetlands**

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. They are recognized as important natural systems because of their value to fish and wildlife, and their functions as storage areas for flood flows, groundwater recharge, nutrient recycling and water quality improvement. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to saturated soils. A wetland delineation was performed for the study area (PacifiCorp, 2006), verified by the Army Corps of



SOURCES: ESA (2007), PacifiCorp (2007), Siskiyou County (1986)

PacifiCorp's Yreka-Weed Transmission Line Upgrade Project - Southern Portion. 205439

Figure 4.4-1  
Wildlife Habitat Types

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Engineers (Corps) and is appended, with the Corps' update, to this document (Appendix F). Additionally, the Corp issued a Nationwide Permit for construction of the Northern Portion of the Yreka-Weed 115kV Transmission Line Project. This permit contains conditions that would be applicable to the Proposed Project. Figure 4.4-2 displays jurisdictional wetlands within the study area.

## **Special-Status Species**

Species known to occur on or in the vicinity of the study area are accorded "special-status" because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special-status species" in this EIR, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed in the *Regulatory Context* section of this chapter.

Special-status plant and wildlife species with potential to occur in the study area are discussed in the following sections. Figure 4.4-3 displays known occurrences of special-status species within the study area.

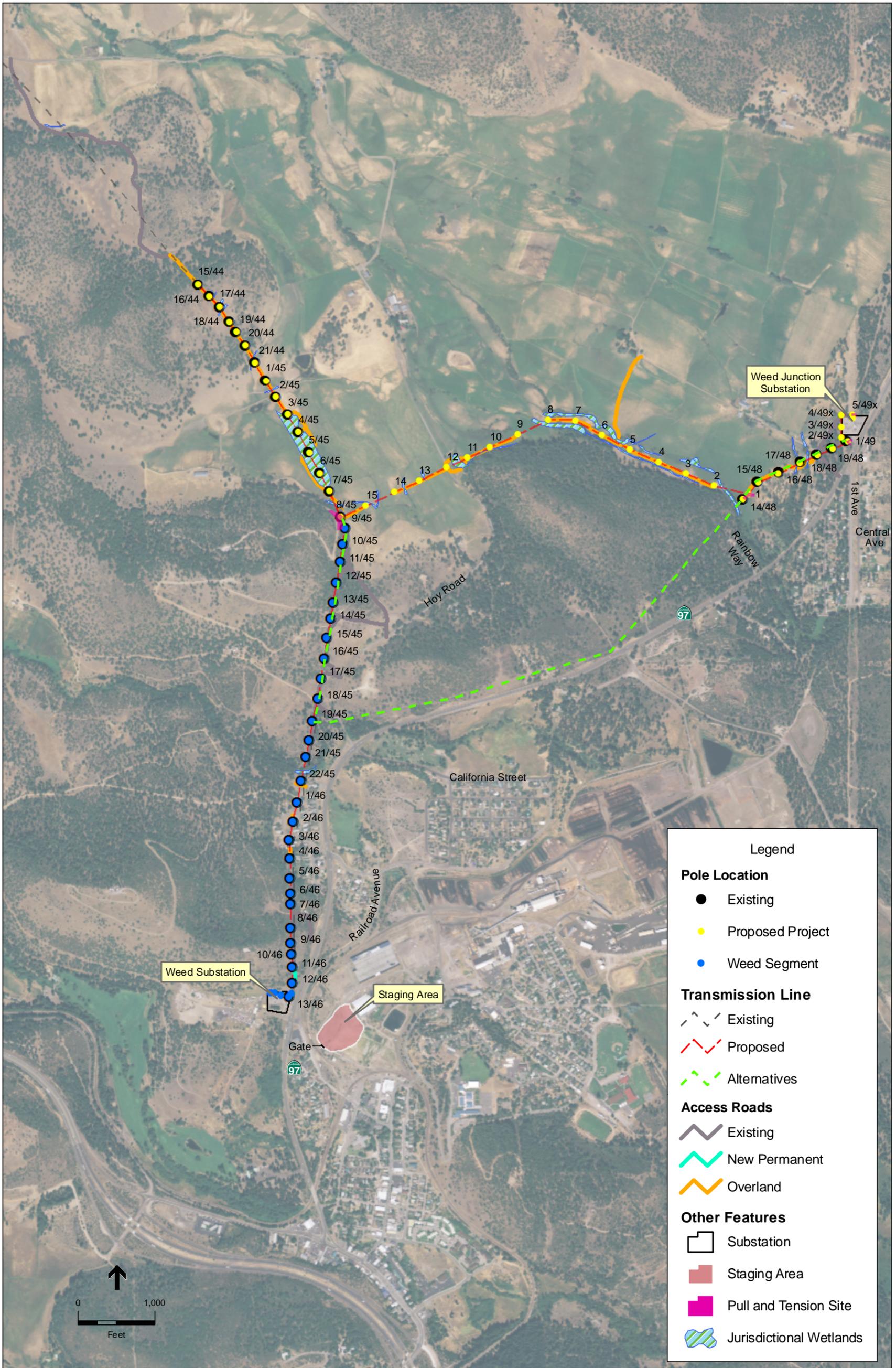
A list of special-status plant and animal species reported or expected to occur within the vicinity of the study area was compiled on the basis of data in the PEA (PacifiCorp, 2005), the California Natural Diversity Database (CNDDDB, 2007), consultation with the CDFG, California Native Plant Society (CNPS) literature (Skinner and Pavlik, 1998), and biological literature of the region. The list is intended to be comprehensive and the "Potential for Occurrence" designations (Table 4.4-1) apply to species and their habitats in the vicinity of the study area but not necessarily impacted by the project. In addition, a list of federal species that are listed or proposed for listing was obtained from the Arcata Field office of the USFWS for Siskiyou County.

Special-status species with the potential for occurrence within the study area *and* anticipated to be exposed to project-related impacts (i.e., species either known to occur or with a high potential for occurrence) are described below. Descriptions of species are taken from various CNPS or CDFG sources unless otherwise cited.

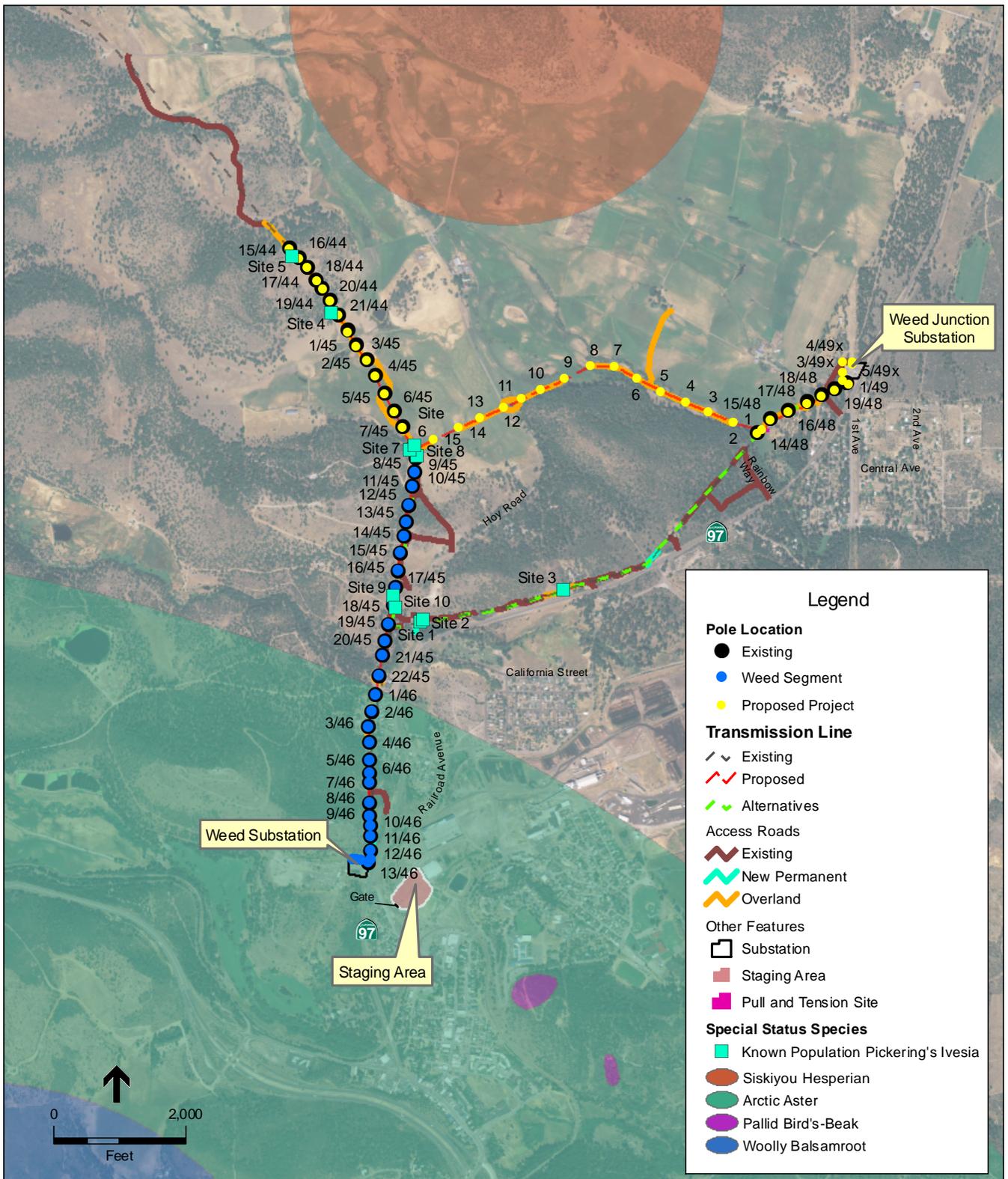
### ***Special-Status Plants***

Botanical surveys were conducted from April 30 through May 4, 2007 by Patrick Fitzmorris of GeoEngineers (2007). The Proposed Project, Weed Segment and alternative transmission line corridors; staging area; work areas; pull and tension sites; and all existing, overland, and new access road locations were surveyed by conducting walking transects. The entire study area was surveyed by walking the transect lines and evaluating the potential presence of conditions which could sustain any of the special-status species listed in Table 4.4-1. The survey extended 75 feet either side of the centerline of the Proposed Project, Weed Segment and alternative alignments.

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SOURCES: ESA (2007), PacifiCorp (2007), CDFG (2007), GeoEngineers (2007)

PacifiCorp's Yreka-Weed Transmission Line Upgrade Project - Southern Portion . 205439

**Figure 4.4-3**  
Special Status Species

**TABLE 4.4-1  
SPECIAL-STATUS SPECIES REPORTED IN OR CONSIDERED FOR THE  
PROPOSED PROJECT AND WEED SEGMENT AREA**

<b>Common Name Scientific Name</b>	<b>Listing Status ESA</b>	<b>Listing Status CESA</b>	<b>CNPS / CDFG Status</b>	<b>Occurrence Reported in the Study Area/Potential for Occurrence</b>
<b>Plants</b>				
Alkali hymenoxys ( <i>Hymenoxys lemmonii</i> )	None	None	2	Moderate
Applegate's milk-vetch ( <i>Astragalus applegatei</i> )	Endangered	None		Very Low
Coast fawn lily ( <i>Erythronium revolutum</i> )	None	None	2	Moderate
Pallid bird's-beak ( <i>Cordylanthus tenuis</i> ssp. <i>Pallescens</i> )	None	None	1B	Known to Occur
Peck's lomatium ( <i>Lomatium peckianum</i> )	None	None	2	Moderate
Pendulous bulrush ( <i>Scirpus pendulus</i> )	None	None	2	Low
Pickering's ivesia ( <i>Ivesia pickeringii</i> )	None	None	1B	Known to Occur
Shasta chaenactis ( <i>Chaenactis suffrutescens</i> )	None	None	1B	Moderate
Shasta orthocarpus ( <i>Orthocarpus pachystachyus</i> )	None	None	1B	Moderate
single-flowered mariposa lily ( <i>Calochortus monanthus</i> )	None	None	1A	Very low
Siskiyou mariposa lily ( <i>Calochortus persistens</i> )	Candidate	Rare	1B	None
Slender Orcutt grass ( <i>Orcuttia tenuis</i> )	Threatened	Endangered	1B	None
Woolly balsamroot ( <i>Balsamorhiza lanata</i> )	None	None	1B	Known to occur
Yreka phlox ( <i>Phlox hirsute</i> )	Endangered	Endangered	1B	Low
<b>Reptiles and Amphibians</b>				
Cascades frog ( <i>Rana cascadae</i> )	None	None	SC	None
Northwestern pond turtle <i>Emys</i> ( <i>Clemmys marmorata</i> )	None	None	SC	None
Oregon spotted frog ( <i>Rana pretiosa</i> )	Candidate	None	Special Concern (SC)	None
<b>Birds</b>				
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Proposed for delisting.	Endangered	None	Transient individuals
Greater sandhill crane ( <i>Grus canadensis tabida</i> )	None	Threatened	Fully Protected Species	None
Northern spotted owl ( <i>Strix occidentalis caurina</i> )	Threatened	None	None	None

**TABLE 4.4-1 (Continued)  
SPECIAL-STATUS SPECIES REPORTED IN OR CONSIDERED FOR THE  
PROPOSED PROJECT AND WEED SEGMENT AREA**

Common Name <i>Scientific Name</i>	Listing Status ESA	Listing Status CESA	CNPS / CDFG Status	Occurrence Reported in the Study Area/Potential for Occurrence
Prairie falcon ( <i>Falco mexicanus</i> )	None	None	SC	Moderate
Swainson's hawk ( <i>Buteo swainsoni</i> )	None	Threatened	None	Moderate
Western yellow-billed cuckoo ( <i>Coccyzus americanus occidentalis</i> )	Candidate	Endangered	None	Low
Willow flycatcher ( <i>Empidonax traillii</i> )	Endangered	None	None	Low
<b>Mammals</b>				
Pacific fisher ( <i>Martes pennanti pacifica</i> )	Candidate	None	SC	None
American badger ( <i>Taxidea taxus</i> )	None	None	SC	High
Sierra Nevada red fox ( <i>Vulpes vulpes necator</i> )	None	Threatened	None	None
Pallid bat ( <i>Antrozous pallidus</i> )	None	None	SC	Moderate

California Native Plant Society codes:

- List 1A=Plants presumed extinct in California
- List 1B=Plants rare, threatened, or endangered in California and elsewhere
- List 2= Plants rare, threatened, or endangered in California but more common elsewhere
- List 3= Plants about which more information is needed
- List 4= Plants of limited distribution

**Pallid Bird's-beak (*Cordylanthus tenuis* spp. *pallescens* – CNPS List 1B.2; State Rank S1.1)**

Pallid bird's beak is an annual herb that is sometime parasitic on other plants. The species' known distribution is restricted to Shasta, Sierra, and Siskiyou Counties. Pallid bird's beak occurs on gravelly, volcanic alluvium in lower montane coniferous forest at elevations ranging from 2,200 to 5,400 feet. The species' bloom period is July through September. There are two records in the CNDDDB within a mile of the study area (Figure 4.4-3) but none were found during surveys.

**Pickering's Ivesia (*Ivesia pickeringii* – CNPS List 1B.2; State Rank 2.2)**

Pickering's ivesia occurs only in two counties in California, Siskiyou and Trinity. Plants occur in ephemeral drainages and seasonally wet grassy slopes in mixed conifer and yellow pine forests on ultramafic soils. Under natural conditions, Pickering's ivesia occurs almost always in wetlands at elevations of 2624 to 4593 feet. Flowering occurs from June to August (CNPS, 2005). Ten locations of ivesia were found during the 2007 surveys (GeoEngineers, 2007) (see Appendix H, Figure 4.4-3).

### **Woolly Balsamroot**

Woolly balsamroot is endemic to California and is found in four counties: Siskiyou, Sierra, Nevada, and Alpine. Plants occur in cismontane woodlands and have been recorded with rubber rabbitbrush, bluebunch wheatgrass (*Pseudoroegneria spicata*), common woolly sunflower (*Eriophyllum lanatum*), carrotleaf horkelia (*Horkelia daucifolia*), cheatgrass (*Bromus tectorum*), yellow star-thistle (*Centaurea solstitialis*), and yellow salsify (*Tragopogon dubius*). Elevations of locations where woolly balsamroot has been identified range from 2,624 to 6,216 feet. Plants flower from April to June (CNPS, 2005). Known populations of woolly balsamroot (CDFG, 2007) occur on the Weed USGS Quadrangle (Figure 4.4-3), one within two miles of the study area but none were found during surveys.

### **Special-Status Wildlife**

#### **Bald Eagle**

The bald eagle is resident throughout much of California, with breeding limited to Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity Counties. The species is a relatively common local winter migrant at several inland waters in southern California, and approximately half of the wintering population is in the Klamath Basin. Habitat generally consists of large trees and snags (i.e. dead trees), especially ponderosa pine, within one mile of large water bodies where they can forage.

Bald eagles are recent occupants in the Shasta Valley. A nest was discovered at the southeast end of Lake Shastina by California Department of Fish and Game (CDFG) in 1996 (CDFG, 2006). This nest has been occupied in subsequent years, and represents the only known nest in the vicinity of the study area. The study area does not contain any high quality nesting, roosting, or foraging habitat for the bald eagle. However, local residents report adult and juvenile bald eagles in the vicinity of Pole 8/45 of the Proposed Project. Given the proximity of the Proposed Project, Weed Segment and alternative to Lake Shastina and the existing nest, transient individual bald eagles may occasionally fly through the study area.

#### **American Badger**

The American badger is widely distributed in California. The species occupies a variety of open habitats, including grasslands, savannas, and montane meadows (CDFG, 2006). The principal habitat requirement is friable soils, which facilitate den construction and pursuit of burrowing rodents upon which the species preys.

Badgers are relatively common in the Shasta Valley, and are known to occur in the Study Area. There are both historic reports and recent observations of badgers in the vicinity of and they are the Study Area known to occur in the Study Area (CDFG 2006; Brian Woodbridge, U.S. Fish and Wildlife Service-Yreka Field Office, personal communication).

### **Pallid Bat**

Pallid bats (*Antrozous pallidus*) are California Species of Special Concern and inhabit open, dry grasslands, woodlands, shrublands and forests and lower elevations throughout California. Rocky outcrops, cliffs, hollow trees and crevices are required for roosting. Pallid bats are highly maneuverable and glean insects and arachnids from the ground. These bats may forage over the area and roost in crevices and in peeling tree bark and snags along the Proposed Project, Weed Segment and alternative alignments.

### **Regulatory Context**

In general, projects approved through the California Environmental Quality Act (CEQA) process should show that new land uses are in compliance with the wetlands provisions of the federal Clean Water Act (CWA) and with State and federal endangered species acts (CESA and FESA).

A complex array of State and federal regulatory guidelines directs how the jurisdictional boundaries of wetlands are identified, defined, and regulated. The U.S. Army Corps of Engineers (USACOE or “the Corps”) is the major regulatory agency involved in wetland regulation under Section 404 of the CWA. Additional agencies that have jurisdiction over on-site wetlands include the U.S. Environmental Protection Agency (US EPA) with oversight authority on Corps Section 404 permits), USFWS, CDFG, and the State Water Resources Control Board (SWRCB).

CEQA directs each lead agency to consult with the CDFG on any project the agency initiates that is not statutory or categorically exempt from CEQA. CEQA Guidelines Section 15065(a) declares that impacts to rare, threatened, or endangered plants or animals are significant. The Native Plant Protection Act also affords limited protection to special-status plant species. A formal consultation process must be initiated with the CDFG for projects which may or will have an adverse effect on State-listed species (i.e., listed under CESA).

Similarly, the permitting responsibilities of the Corps include consultation with the USFWS when federally listed species (i.e., listed under FESA) are at risk. At both the State and federal levels, the process requires that a Biological Assessment (BA) be prepared to determine the effects on listed species. With both USFWS and CDFG policy, “species of special concern” are not subject to the same consultation requirements as listed endangered, rare, or threatened species, but the agencies encourage informal consultation for species of special concern that may become officially listed prior to completion of the CEQA process.

CEQA Guidelines Section 15206 specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species.

## ***Federal***

### **Federal Regulation of Waters of the U.S., including Wetlands (Clean Water Act Sections 404 and 401)**

Wetlands and non-wetland water resources (e.g., rivers, streams, and natural ponds) are a subset of “waters of the United States”<sup>2</sup> and receive protection under Section 404 of the Clean Water Act. The Corps is the major regulatory agency involved in wetland regulation under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. As noted above, additional agencies that have jurisdiction over on-site wetlands include the US EPA, USFWS, CDFG, and SWRCB.

The federal government also supports a policy of minimizing “the destruction, loss, or degradation of wetlands.” Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

### **Riparian Communities in California**

Riparian communities have a variety of functions, including providing high-quality habitat for resident and migrant wildlife, streambank stabilization, and runoff water filtration. Throughout the United States, riparian habitats have declined substantially in extent and quality compared with their historical distribution and condition. These declines have increased concerns about dependent plant and wildlife species, leading federal agencies to adopt policies to arrest further loss. USFWS mitigation policy identifies California’s riparian habitats as belonging to resource Category 2, for which no net loss of existing habitat value is recommended (46 FR 7644, January 23, 1981).

### **Federal Endangered Species Act**

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 USC § 1533(c)). Two federal agencies oversee the FESA: the USFWS has jurisdiction over plants, wildlife, and resident fish, while NOAA Fisheries/NMFS has jurisdiction over anadromous fish and marine fish and mammals. Section 7 of the FESA mandates that all federal agencies consult with the USFWS and NOAA Fisheries/NMFS to ensure that federal agency actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. The FESA prohibits the “take”<sup>3</sup> of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

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<sup>2</sup> The regulatory term “waters of the United States,” as used by USACOE, has broad meaning and incorporates both deep-water aquatic habitats and special aquatic sites, including wetlands.

<sup>3</sup> Take is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct.

Section 10 of the FESA requires the issuance of an “incidental take” permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an endangered or threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of the project, by providing for the overall preservation of the affected species through specific mitigation measures.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and whether the proposed action will have a potentially significant impact on such species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC § 1536(3), (4)). Therefore, project-related impacts to these species or their habitats would be considered significant in this EIR. The USFWS also publishes a list of candidate species which receive “special attention” from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species are those for which the USFWS has sufficient biological information to support a proposal to list as endangered or threatened. Project impacts to such species would be considered significant in this EIR. Similarly, the permitting responsibilities of the Corps includes consultation with the USFWS and NMFS when federally listed species (i.e., listed under the FESA) are at risk. As noted above, a Biological Assessment (BA) is prepared when there are potential adverse effects on listed species.

#### **Federal Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (16 United States Code § 703 Supp. I, 1989) prohibits the killing, possessing, or trading migratory birds, bird parts, eggs, and nests, except in accordance with regulations prescribed by the Secretary of the Interior. Birds of prey are protected in California under California Fish and Game Code Section 3505.5 which states that it is “unlawful to take possess, or destroy the nests or eggs of any such bird except otherwise provided by this code or any other regulation adopted hereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment and/or reproductive failure. Disturbance that causes nest abandonment or reproductive failure is considered “taking” by CDFG. Any loss of eggs, nests, or young or any activities resulting in nest abandonment would constitute a significant impact. Project-related impacts on these species would not be considered significant unless they are known or have high potential to nest in the Project Area or to rely on it for its primary foraging.

#### **Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act, enforced by the USFWS, makes it illegal to import, export, take (which includes molest or disturb), sell, purchase, or barter any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) or part thereof.

## **State**

### **Porter Cologne Water Quality Act**

The State Water Resources Control Board (SWRCB), through its nine Regional Water Quality Control Boards (RWQCB), regulates waters of the state through the California Clean Water Act (i.e. Porter-Cologne Act). If the Corps determines wetlands or other waters to be isolated waters and not subject to regulation under the federal CWA, the RWQCB may choose to exert jurisdiction over these waters under the Porter-Cologne Act as waters of the state.

### **Fish and Game Code Section 1600 - 1616**

The CDFG regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. Section 1602 of the California Fish and Game Code requires notification of the CDFG for lake or stream alteration activities. If, after notification is complete, the CDFG determines that the activity may substantially adversely affect an existing fish and wildlife resource, the CDFG has authority to issue a streambed alteration agreement under Section 1603 of the California Fish and Game Code. Requirements to protect the integrity of biological resources and water quality are often conditions of streambed alteration agreements. These may include avoidance or minimization of heavy equipment use within stream zones, limitations on work periods to avoid impacts to wildlife and fisheries resources, and measures to restore degraded sites or compensate for permanent habitat losses.

### **California Endangered Species Act**

In 1984, California implemented its own Endangered Species Act (CESA) which prohibits the take of state-listed endangered and threatened species; although, habitat destruction is not included in the state's definition of take. Section 2090 requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. The CDFG administers the act and authorizes take through California Fish and Game Code Section 2081 agreements (except for designated "fully protected species," see below).

Regarding listed rare and endangered plant species, CESA defers to the California Native Plant Protection Act (see below).

### **California Fully Protected Species - Fish and Game Code Sections 3511, 4700, 5050 and 5515**

Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. The classification of Fully Protected was the State's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Its "no take" provision is still applicable.

### **CEQA Guidelines Section 15380**

Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet

certain specific criteria. These criteria have been modeled after the definition of FESA and the Section of California Fish and Game Code discussing rare or endangered plants or animals. This section was included in the CEQA Guidelines primarily for situations in which a public agency is reviewing a project that may have a significant effect on a candidate species that has not yet been listed by CDFG or USFWS. CEQA provides the ability to protect species from potential project impacts until the respective agencies have the opportunity to designate the species protection.

CEQA also specifies the protection of other locally or regionally significant resources, including natural communities or habitats. Although natural communities do not presently have legal protection, CEQA requires an assessment of such communities and potential project impacts. Natural communities listed by CNDDDB as sensitive are considered by CDFG to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general and area plans often identify natural communities.

### **California Department of Fish and Game Code Bird Protections**

Section 3503 of the California Fish and Game Code prohibits destruction of the nests or eggs of most native resident and migratory bird species. Section 3503.5 of the California Fish and Game Code specifically prohibits the taking of raptors or destruction of their nests or eggs.

The legal framework and authority for the State's program to conserve plants is derived from various legislative sources, including CESA, the California Native Plant Protection Act (Fish and Game Code Section 1900 – 1913), the CEQA Guidelines, and the Natural Communities Conservation Planning Act.

### **Native Plant Protection Act**

California Fish and Game Code Section 1900–1913, also known as the Native Plant Protection Act, is intended to preserve, protect, and enhance endangered or rare native plants in California. The act directs CDFG to establish criteria for determining what native plants are rare or endangered. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more cause. A species is rare when, although not threatened with immediate extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. The act also directs the California Fish and Game Commission to adopt regulations governing the taking, possessing, propagation, or sale of any endangered or rare native plant.

Vascular plants listed as rare or endangered by the CNPS (Skinner and Pavlik, 1995), but which may have no designated status or protection under federal or State endangered species legislation, are defined as follows:

- **List 1A:** Plants Presumed Extinct.
- **List 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere.
- **List 2:** Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.

- **List 3:** Plants About Which More Information is Needed – A Review List.
- **List 4:** Plants of Limited Distribution – A Watch List.

In general, plants appearing on CNPS List 1A, 1B, or 2 are considered to meet the criteria of CEQA Guidelines Section 15380 and effects to these species are considered “significant” in this EIR. Additionally, plants listed on CNPS List 1A, 1B or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (California Endangered Species Act) of the California Fish and Game Code.

### **Local**

#### **Siskiyou County General Plan**

The Conservation Element of the Siskiyou County General Plan includes general objectives relating to biological resources. These objectives include 1) “to preserve, protect and manage the Forest Lands as both wild habitat and a productive economic resource” and 2) “to preserve and maintain streams, lakes and forest open space as a means of providing natural habitat for species of wildlife”

#### **City of Weed General Plan**

The Open Space and Conservation Elements of the City of Weed General Plan include a commitment to “protect, preserve, and enhance the natural ...resources of the City of Weed.” Specific measures are to assess the impact of land development projects and develop and adhere to plans for the balanced consideration of protection of wildlife and wildlife habitats.

## **4.4.2 Significance Criteria**

Based on Section 15065 and Appendix G of the CEQA Guidelines, the project would result in a significant impact on the environment if it would:

- 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 CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory);
- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional, or state habitat conservation plan.

CEQA Section 15380 provides that a plant or animal species may be treated as “Rare or Endangered” even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future. As species of plants and animals become restricted in range and limited in population numbers, species may become listed or candidates for listing as Endangered or Threatened and become recognized under CEQA as a significant resource. Examples of such species are vernal pool fairy shrimp and burrowing owl; the former is listed by the federal government and the latter is considered a Species of Special Concern.

California Fish and Game Code Section 3503.5 provides that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

In conducting the following impact analysis, three principal components of the CEQA Guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the following impacts considered the interrelationship of these three components. For example, a relatively small magnitude impact to a state or federally listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a plant community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact.

Regarding criterion f) there are no Habitat Conservation Plans or other approved governmental habitat plans that involve lands within the Study Area (Brian Woodbridge, U.S. Fish and Wildlife Service-Yreka Field Office, pers. comm); therefore, the Proposed Project, Weed Segment, and alternatives would not conflict with any conservation plans. Resultantly, impacts related to conflicts with applicable conservation plans are not addressed further in this EIR.

## 4.4.3 Biological Resources Impacts and Mitigation Measures

### Approach to Analysis

This section identifies potential impacts to the biological resources within vicinity of the Proposed Project and Weed Segment while Section 4.4.5, below, identifies potential impacts within the vicinity of the alternatives. For both sections, the impact analysis focuses on foreseeable changes to the baseline conditions in the context of the significance criteria presented above and retained below for ease of reference. This analysis includes an evaluation of the potential direct and indirect effects of the Proposed Project, Weed Segment and alternatives; as well as the potential cumulative impacts of the Proposed Project and Weed Segment. Definitions and examples of these effects within the context of biological resources are provided below.

- **Direct Effects.** Direct or primary effects are those effects that are caused by the project and occur at the same time and place (CEQA Guideline §15358). Examples of these types of effects to biological resources include incidental take during construction, elimination of suitable habitat due to project construction, and degradation of habitats due to construction-related activities.
- **Indirect Effects.** Indirect or secondary effects are those effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable (CEQA Guideline §15358). Examples of these types of effects to biological resources include the discharge of sediment or chemicals that adversely affect water quality downstream of the project site, an increase in human activity during project operations, and potential growth-inducement effects.
- **Cumulative Impacts.** Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (CEQA Guideline §15355). These include the effects of future projects that are reasonably certain to occur within the area of the proposed project, and which may cumulatively increase the magnitude of effects described previously. Examples of these types of effects to biological resources include the effects of a cumulative loss of habitat for a special status species due to other planned projects in the area.

The Proposed Project, Weed Segment and alternatives have the potential to have direct and indirect effect on terrestrial biological resources in the region; additionally, the Proposed Project and Weed Segment have the potential to have cumulative effects as well. These potential effects include construction-related disturbance, degradation and loss of natural habitats, and changes in the distribution of habitats over time. Once impacts were identified, mitigation measures were developed to reduce the level of significance of potential impacts. Mitigation measures focused first on minimization and avoidance of biological resources where possible. Where impacts could not be avoided, compensation for potential impacts was proposed.

- 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 CDFG or USFWS (including**

**List 1A, 1B, and 2 plant species of the CNPS Inventory). *Less than significant with mitigation (Class II).***

### **Construction**

The Proposed Project and Weed Segment would cause temporary disturbance to habitat, within the Eastside Pine habitat type, due to site preparation associated with 17 work areas<sup>4</sup> (i.e. nine tangent structure, four angle/dead angle structure, and five side hill work areas); and five pull and tension sites. Brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation would also cause approximately 5,225 square feet (i.e., 0.12 acres) of temporary disturbance. After line construction, all disturbed work areas and pull and tension sites, approximately 3.22 acres<sup>5</sup> (i.e., 2.15 and 1.07 acres associated with the Proposed Project and Weed Segment, respectively) would be restored.

Existing access roads would be used and in general would not require preparation except in a few sections that may need to be re-graded and have crushed rock applied in very limited areas for traction; therefore, little additional disturbance would result above the baseline, which includes periodic maintenance of the roads. For the Proposed Project no new permanent roads would be required. For the Weed Segment, a 0.06 acres of new permanent road, near Pole 11/46, would be located in Eastside Pine habitat type. Overland access (predominantly over small areas of Annual Grassland) would not result in significant impacts because their use would be limited by the time needed to install the new poles and conductor (i.e. generally less than one day per activity). With wetland areas avoided for practical reasons, impacts would be expressed on gravelly, shallow soils and vegetation which is highly tolerant of disturbance. For existing and new roads, incidental impacts to wildlife are reduced by requiring speeds less than 10 mph and other measures noted below.

Approximately 12 trees including large cedars and pines would need to be removed within the last 500 feet of the transmission line corridor leading into the Weed Junction Substation. Flammable fuels (i.e., vegetation) would be cleared at least 10 feet in each direction around wood poles.

The disturbance at any one pole site is limited in time and the pole locations themselves are somewhat flexible, allowing crews to avoid sensitive areas that are known and are themselves present in small, discrete polygons (i.e., streams, sensitive plant locations, etc.). Although small impacts to wetlands may occur from the Proposed Project across the Wet Meadow<sup>6</sup>, this EIR does not identify any significant impact to organisms associated with wetlands or aquatic habitats, which include herptiles (amphibians and

<sup>4</sup> The four-acre staging area at the Roseburg Forest Products plant across Highway 97 from the Weed Substation is considered previously disturbed, i.e., no impact identified

<sup>5</sup> This calculation includes temporary disturbance resulting from brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation.

<sup>6</sup> As described in the Setting, Wet Meadows are characterized by several genera common to this type throughout the State: *Agrostis*, *Carex*, *Danthonia*, *Juncus*, *Salix*, and *Scirpus* (Mayer and Laudenslayer, 1988).

reptiles) and riparian birds such as the yellow-billed cuckoo, because none of the Study Area wetlands separately or collectively are of a size or type to support such species. Special status amphibians and reptiles of concern in the area (e.g., western pond turtle) require pools, ponded or flowing water; riparian birds are dependent on willows and other vegetation which do not develop on wetlands co-located with activity areas.

**Impact BIO-PPWS-1: Construction activities would impact habitat and may potentially impact habitat elements such as dens and burrows and transient wildlife. *Less than significant with mitigation (Class II).***

Construction activities associated with the Proposed Project and Weed Segment, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could potentially impact habitat elements such as dens and burrows and transient wildlife due to habitat disturbance and increased noise. These resources may have special status and/or support species with special status.

**Mitigation Measure BIO-PPWS-1:** PacifiCorp shall apply the following general measures to avoid or minimize impacts to biological resources:

- An ongoing environmental education program for construction crews shall be conducted before beginning the site work and during construction activities. Sessions shall include information about the federal and State endangered species acts, the consequences of noncompliance with these acts, identification of special-status species and wetland habitats (including waterways), and review of mitigation requirements.
- Vehicles shall be restricted to established roadways and identified overland access routes, and to speeds less than 10 mph when traveling overland.
- A biological monitor shall be on site during construction activity to provide preconstruction clearance wherever ground is disturbed, as well as to ensure implementation of, and compliance with, mitigation measures as described below. The monitor shall have the authority to stop activities and determine alternative work practices in consultation with construction personnel, if construction activities are likely to impact special-status species or other sensitive biological resources.
- The biological monitor shall delineate and mark for avoidance in the field all known sensitive resource locations. In addition, areas considered suitable habitat for special-status plant species shall also be marked for avoidance during the spring preceding construction. The marker shall be coordinates obtained from a Global Position System (GPS) with sub-meter accuracy, presuming the special-status plant species may be present but not visible at the time installation occurs. If special-status species are located immediately prior to or during work activities, construction personnel shall contact the biological monitor. If the monitor determines that project activities may adversely affect a species, a 50-foot buffer shall be established around any sensitive resources unless it can be shown that no individual plants or animals are at risk (e.g., in the case of a burrow,

probing with an endoscope to ensure the burrow is unoccupied, then closing with sandbag until project work is complete in the area).

- All disturbed areas will be restored to pre-project conditions including re-contouring and replanting, as described in Section 2.7.1.9 *Cleanup and Post Construction Restoration*. To ensure this is the case, photo documentation of preconstruction habitat conditions shall occur at all construction locations within sensitive habitat prior to the start of work, as well as immediately after construction activities.
- Trash, dumping, firearms, open fires, hunting, and pets shall be prohibited in the project area.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-PPWS-2: Construction activities would impact habitat and may result in direct or indirect loss of known (e.g., seven locations of Pickering's ivesia) and unknown populations of special-status plant species. *Less than significant with mitigation (Class II).***

Construction activities associated with the Proposed Project and Weed Segment, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could directly affect known and/or unknown populations of special-status plant species through root or seed damage or indirectly through changes in soil profile.

**Mitigation Measure BIO-PPWS-2a:** For known locations of Pickering's ivesia, PacifiCorp shall establish an appropriate exclusion zone (at least 10 feet) around the perimeter of the habitat where feasible. The exclusion zone shall be staked and flagged in the field by a trained professional botanist prior to construction.

Any changes in location or additions, outside of the survey corridor, pertaining to access roads (i.e., new permanent and/or overland), or disturbance areas necessary for construction activities (e.g., work areas, pull and tension sites, etc.), or the transmission line route, that occur after Project approval shall require an additional field survey prior to construction activities to identify locations of special-status plant species and to establish additional exclusion zones, if required, as described above.

**Mitigation Measure BIO-PPWS-2b:** To reduce potential impacts to less than significant, for any project-related activity that disturbs soil below the root zone (e.g., pole installation, grading, etc.), PacifiCorp shall salvage the topsoil, store topsoil separately from subsoil, and spread the topsoil either at the disturbance site upon completion of construction activities or during the restoration process.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-PPWS-3: Construction activities could potentially spread noxious or invasive weeds into areas where noxious or invasive weeds may or may not currently exist. *Less than significant with mitigation (Class II).***

New noxious or invasive weed species could be transported into the Proposed Project and Weed Segment areas if seeds or plant material are carried on vehicles and construction equipment, with the potential to affect reduce productivity and diversity of both uplands and wetlands habitats within the Proposed Project and Weed Segment areas as well as unknown habitat or populations outside of the Proposed Project and Weed Segment areas.

**Mitigation Measure BIO-PPWS-3:** PacifiCorp shall develop and implement a Noxious Weed and Invasive Plant Control Plan, consistent with standard Best Management Practices (see for example: Department of Transportation, State of California (2003); Storm Water Quality Handbooks; and Project Planning and Design Guide Construction Site Best Management Practices Manual). The plan shall be reviewed and approved by Siskiyou County and by the CPUC and shall at a minimum address any required cleaning of construction vehicles to minimize spread of noxious weeds and invasive plants.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-PPWS-4: Construction activities may impact active nest sites. *Less than significant with mitigation (Class II).***

Construction activities associated with the Proposed Project and Weed Segment, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, installation and removal of poles, and conductor installation, could disturb nesting birds and cause nest site abandonment and/or reproductive failure through an increase in noise, human presence and/or removal of habitat.

**Mitigation Measure BIO-PPWS-4:** PacifiCorp shall implement the project during the non-nesting season, which for purposes of this project shall be deemed to be September 15 through February 15. In the event that construction cannot be completed during this period, the work shall stop until such time as pre-construction nest surveys are conducted by a qualified biologist. Pre-construction nest surveys must occur within 1000 feet of the project areas (i.e., transmission line corridors, pole sites, access roads and work areas) with all nests identified during these surveys to be located by GPS. No construction activities shall occur within 500 feet of active nests from February 15 through July 15. Any nest site disturbance between July 15 and August 15 must be approved by CDFG.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-PPWS-5: Construction activities could potentially disturb foraging bald eagles. *Less than significant with mitigation (Class II).***

The Proposed Project and Weed Segment areas do not contain optimal nesting, roosting, or foraging habitat for the bald eagle, and no eagle nests or roosts would be directly affected by the Proposed Project and Weed Segment. However, given the proximity of the Proposed Project and Weed Segment to Lake Shastina and the known nest on the southeast end of Lake Shastina, bald eagles may occasionally fly through and forage within the Proposed Project and Weed Segment areas. Foraging bald eagles could potentially be disturbed due to the increased vehicular traffic, human activity, and noise associated with the construction activities. This would be a significant impact if winter foraging is disturbed over a wide enough area.

**Mitigation Measure BIO-PPWS-5:** Construction crews shall halt activities whenever a bald eagle is observed within 100 yards of the construction area. Construction activities shall not be permitted to resume until the bald eagle leaves the area.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-PPWS-6: Construction activities associated with the Proposed Project (from Pole 15/44 to Pole 1/45) and the Weed Segment could result in loss of habitat within the mule deer winter range. *Less than significant with mitigation (Class II).***

A portion of the Proposed Project (i.e., from Pole 15/44 south to Pole 1/45) and the Weed Segment are located within mule deer winter range (Bob Shafer, California Department of Fish and Game, personal communication). Mule deer from the Mount Shasta area utilize this portion of the Proposed Project and Weed Segment areas during severe winter conditions. Implementation of a portion of the Proposed Project and Weed Segment would result in displacement of the deer due to construction activity and in approximately 1.07 acres of temporary habitat loss within the deer winter range as a result of site preparation of work areas as well as the permanent loss of 0.06 acres resulting from construction of a new permanent access road. This disturbance would not substantially affect the quality or availability of winter range forage; however, the noise and human presence in the area may be significant in displacing animals from traditional winter “yarding” areas.

**Mitigation Measure BIO-PPWS-6:** Construction activities within mule deer winter range (i.e., from Pole 15/44 south to Pole 1/45 and the Weed Segment) shall not be permitted between November 15 and March 15 to minimize the potential for mule deer disturbance and/or displacement. This seasonal restriction may be modified or removed with approval from CDFG.

**Significance after Mitigation:** Less than significant.

### **Operations**

“Birds are generally electrocuted by transmission lines by due to environmental factors such as topography, vegetation, available prey and other, behavioral or biological factors influence avian use of power poles and inadequate separation between energized conductors or energized conductors and grounded hardware can provide two points of contact.

Raptors and other large birds are opportunistic and may use power poles for a number of purposes, such as nest sites, high points from which to defend territories, and perches from which to hunt. Some structures are preferred by birds because they provide considerable elevation above the surrounding terrain, thereby offering a wide field of view.

Electrocution can occur when a bird completes an electric circuit by simultaneously touching two energized parts or an energized part and a grounded part of electrical equipment. Most electrocutions occur on medium-voltage distribution lines (4-34.5 kV), in which the spacing between conductors may be small enough to be bridged by birds. Poles with energized hardware, such as transformers, can be especially hazardous, even to small birds, as they contain numerous, closely-spaced energized parts.

“Avian-safe” structures are those that provide adequate clearances to accommodate a large bird between energized and/or grounded parts. Consequently, 60 inches of horizontal separation, which can accommodate the wrist-to-wrist distance of an eagle (which is approximately 54 inches), is used as the standard for raptor protection Likewise, vertical separation of at least 48 inches can accommodate the height of an eagle from its feet to the top of its head (which is approximately 31 inches). Because dry feathers act as insulation, contact must be made between fleshy parts, such as the wrists, feet, or other skin, for electrocution to occur. In spite of the best efforts to minimize avian electrocutions, some degree of mortality may always occur due to influences that cannot be controlled, e.g. weather.”

(The Edison Electric Institute’s Avian Power Line Interaction Committee (APLIC) & USFWS, 2005)

The design of the Proposed Project and Weed Segment incorporates the Avian Plan Protection Guidelines providing ‘avian safe’ structures and adequate horizontal (between 7 to 12 feet) and vertical (not less than six feet) distance between conductors to minimize impacts to raptors and other large birds.

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- b) **Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS. *No Impact.***

The riparian area along Garrick Creek (locally known as Carrick Creek), a smaller drainage, is paralleled and spanned by eastern end of the Proposed Project (i.e. generally from Pole 8 to Pole 1); and Beaughton Creek, which represents the principal riparian

community associated with the Weed Segment is located adjacent to Pole 19/45 through 21/45 and is spanned by Pole 21/45 and 22/45. Both creeks would be spanned without impact to the riparian vegetation.

Portions of the Eastside Pine community might be classified as Ponderosa Pine/Antelope Bitterbrush (PP/AB), a type “considered rare and worthy of consideration by CNDDDB” (CDFG, 2003). However, potential presence of this habitat is represented only by scattered occurrences of similar vegetation, in areas too small to support biological resources associated with PP/AB, because the presence of bitterbrush in the understory is only intermittent. Therefore, pole replacement/placement for the Proposed Project and Weed Segment is not expected to permanently impact any of this type of habitat community.

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- c) **Effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *Less than significant with mitigation* (Class II).**

**Impact BIO-PPWS-7: Construction would impact jurisdictional waters of the United States, including small drainages and seasonal wetlands. *Less than significant with mitigation* (Class II).**

As depicted in Figure 4.2-2 and Appendix F, Pole 16/44 and Pole 17/44 are sited in vernal swales, per the conclusions and permit conditions of the Nationwide Permit attained by PacifiCorp for construction of the Northern Portion of the Yreka-Weed 115kV Transmission Line Project. These swales are to be avoided and a 20-foot construction free buffer shall be maintained; therefore, no impacts to these jurisdictional features would occur. Several other poles (i.e., Poles 3/45, 4/45, 5/45, 6/45) associated with the Proposed Project which would be replaced with larger poles (i.e., approximately 6 inches wider in diameter) are located within, and would be replaced within, a jurisdictional feature. The Proposed Project spans upwards of 14 smaller wetland polygons. Construction activities would permanently impact 0.001 acres of jurisdictional wetlands from pole installation and temporarily would impact 0.145 acres of wetlands from vehicle access and use of work areas. The Weed Segment would not impact any jurisdictional features, as Beaughton Creek would be clear-spanned and no construction activities would directly or indirectly impact this feature.

**Mitigation Measure BIO-PPWS-7:** In order to avoid impacts to wetland areas, final design of the transmission line and access roads shall incorporate the results of the wetland delineation and the conditions of the extant permit<sup>7</sup> (see Appendix F) and the project shall be modified to minimize disturbance of any

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<sup>7</sup> The extant permit will not be valid for the project reviewed by this DEIR, but its provisions are assumed to be applicable and are incorporated by reference.

wetland as feasible. Impact from temporary access across wetlands shall be avoided by the use of driving mats (e.g., 8' x 14' high density polyethylene mats). In the event of any project changes that involve ground disturbance outside of the boundary of the existing wetland delineation, a new wetland delineation shall be performed by PacifiCorp or PacifiCorp's consultant.

**Significance after Mitigation:** Less than significant.

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**d) Interference 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. *No impact.***

As discussed above, impacts from powerline bird strikes would be less than significant because the Proposed Project and Weed Segment are designed to be 'avian safe'. Issues regarding deer winter range were fully discussed and mitigated above; therefore, no impacts to wildlife movement or on wildlife nursery sites are expected as a result of the Proposed Project and Weed Segment.

**Significance after Mitigation:** Less than significant.

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**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *No impact.***

The Conservation Element of the Siskiyou County General Plan includes general objectives relating to biological resources. These objectives include 1) "to preserve, protect and manage the Forest Lands as both wild habitat and a productive economic resource" and 2) "to preserve and maintain streams, lakes and forest open space as a means of providing natural habitat for species of wildlife".

The Proposed Project and the portion of the Weed Segment within Siskiyou County would comply with these general objectives by completely avoiding construction that would affect Forest Lands, streams and lakes.

The Open Space and Conservation Elements of the City of Weed General Plan include a commitment to "protect, preserve, and enhance the natural ...resources of the City of Weed." Specific measures are to assess the impact of land development projects and develop and adhere to plans for the balanced consideration of protection of wildlife and wildlife habitats.

The portion of the Weed Segment within the City of Weed would not conflict with the City's General Plan by 1) utilizing the existing right-of-way 2) using existing and overland access roads to the maximum extent possible while minimizing the construction

of any new permanent access roads, and 3) spanning sensitive areas such as wetlands, riparian zones, and streams.

Additionally, there are no tree policies/ordinances or other local policies or ordinances applicable to the Proposed Project and the Weed Segment.

Therefore, no conflict with local policies or ordinances protecting biological resources would result from approval and implementation of the Proposed Project and Weed Segment.

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#### 4.4.4 Cumulative Impacts

As discussed above, the Proposed Project and Weed Segment would not result in significant, unmitigable effects on biological resources. In conjunction with past, present and reasonably foreseeable future projects described in Table 3-11 of Section 3, *Alternatives and Cumulative Projects*, there would be a cumulative increase in the loss of habitats locally. Within 200 feet of the Weed Segment, a housing subdivision is planned on 120.5 acres. The majority of the projects are associated with existing infrastructure (i.e. repair/upgrade of roads and bridges). The very small amount of permanent impact from the Proposed Project and Weed Segment is not sufficient to alter plant or wildlife species abundance or distribution. Additionally, Mitigation Measures BIO-PPWS-1 through BIO-PPWS-7, described above would further ensure that the Proposed Project and Weed Segment's biological impacts would be less than cumulatively considerable. Therefore, the impact of the Proposed Project and Weed Segment, in combination with other reasonable foreseeable projects, would not be cumulatively considerable (Class II).

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#### 4.4.5 Alternatives

##### PacifiCorp Option 4 Alternative

- 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 CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory). *Less than significant with mitigation* (Class II).**

##### ***Construction***

The PacifiCorp Option 4 alternative would cause temporary disturbance to habitat within the Eastside Pine habitat type, which includes PP/AB habitat, due to site preparation associated with four tangent structure work areas and five pull and tension sites. After

line construction, all disturbed work areas and pull and tension sites, approximately 2.47 acres<sup>8</sup> (i.e., 0.32 acres more than the Proposed Project) acres would be restored.

Existing access roads would be used to access a majority of the PacifiCorp Option 4 alternative alignment and in general would not require preparation except in a few sections that may need to be re-graded and have crushed rock applied in very limited areas for traction; therefore, little additional disturbance would result above the baseline, which includes periodic maintenance of the roads. PacifiCorp Option 4 would require 0.09 acres of new permanent roads, near Pole 12/47 and between Pole 5/48 and Pole 6/48, which would be located in Eastside Pine habitat type (the Proposed Project would have no permanent impacts associated with new permanent roads). Overland access (predominantly over small areas of Annual Grassland) would not result in significant impacts because their use would be dictated by the time needed to install the new poles and conductor (i.e. generally less than one day per activity).

From Pole 19/45 to Pole 14/48 shifting the ROW 15 feet to the north in this area would require trimming and removal of trees for line clearance requirements, and trimming or clearing of lower vegetation for fire safety requirements. The exact number and location of trees that would have to be removed by shifting the ROW 15 feet to the north would be determined during final surveying and engineering design. However, a rough count of trees greater than 10 inches in diameter at breast height (dbh) within 50 feet of the existing transmission line numbered at least 75, and between 20 to 50 of these trees would be removed (based on field observations noted by ESA biologists for the Constraints Analysis conducted for the Mitigated Negative Declaration [Appendix A in CPUC, 2006]). Some of these are large trees over 30 inches and provide habitat for cavity-nesting birds and bats.

Brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation would cause approximately 5,225 square feet (i.e., 0.12 acres) of temporary disturbance. Additionally, approximately 12 trees including large cedars and pines would need to be removed within the last 500 feet of the transmission line corridor leading into the Weed Junction Substation. Clearing of flammable fuels (i.e., vegetation) at least 10 feet in each direction around wood poles would be conducted. Brush clearing between Pole 18/48 and 19/48 as well as the removal of the 12 trees near the Weed Junction Substation would be common to the Proposed Project and all alternatives.

The disturbance at any one pole site is limited in time and the pole locations themselves are somewhat flexible, allowing crews to avoid sensitive areas that are known and are themselves present in small, discrete polygons (i.e., streams, sensitive plant locations, etc.). No impacts to wetlands would occur from implementation of the PacifiCorp Option 4 alternative; although installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands and activities associated with

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<sup>8</sup> This calculation includes temporary disturbance resulting from brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation.

Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands -- impacts to wetlands common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-OPT4-1: Construction activities would impact habitat and may potentially impact habitat elements such as dens and burrows and transient wildlife. *Less than significant with mitigation (Class II).***

Construction activities associated with the PacifiCorp Option 4 alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could potentially impact habitat elements such as dens and burrows and transient wildlife due to habitat disturbance and increased noise. These resources may have special status and/or support species with special status.

**Mitigation Measure BIO-OPT4-1:** Implement BIO-PPWS-1.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-2: Construction activities would impact habitat and may result in direct or indirect loss of known (e.g., ten locations of Pickering's ivesia) and unknown populations of special-status plant species. *Less than significant with mitigation (Class II).***

Construction activities associated with the PacifiCorp Option 4 alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could directly affect known and/or unknown populations of special-status plant species through root or seed damage or indirectly through changes in soil profile. Ten recorded sites (i.e., three more than the Proposed Project) occupied by Pickering's ivesia, a CNPS List 1B plant, could incur temporary and potentially significant disturbance (see Figure 4.4-3).

**Mitigation Measure BIO-OPT4-2:** Implement BIO-PPWS-2a and BIO-PPWS-2b.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-3: Construction activities could potentially spread noxious or invasive weeds into areas where noxious or invasive weeds may or may not currently exist. *Less than significant with mitigation (Class II).***

New noxious or invasive weed species could be transported into the PacifiCorp Option 4 alternative area if seeds or plant material are carried on vehicles and construction equipment, with the potential to affect reduce productivity and diversity of upland habitat within the alternative areas as well as unknown habitat or populations outside of the alternative areas.

**Mitigation Measure BIO-OPT4-3:** Implement BIO-PPWS-3.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-4: Construction activities may impact active nest sites. *Less than significant with mitigation (Class II).***

Construction activities associated with the PacifiCorp Option 4 alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, installation and removal of poles, and conductor installation, could disturb nesting birds and cause nest site abandonment and/or reproductive failure through an increase in noise and/or removal of habitat.

**Mitigation Measure BIO-OPT4-4:** Implement BIO-PPWS-4.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-5: Construction activities could potentially disturb foraging bald eagles. *Less than significant with mitigation (Class II).***

The PacifiCorp Option 4 alternative area does not contain optimal nesting, roosting, or foraging habitat for the bald eagle, and no eagle nests or roosts would be directly affected by the PacifiCorp Option 4 alternative area. However, given the proximity of the PacifiCorp Option 4 alternative area to Lake Shastina and the known nest on the southeast end of Lake Shastina, bald eagles may occasionally fly through and forage within the PacifiCorp Option 4 alternative area. Foraging bald eagles could potentially be disturbed due to the increased vehicular traffic, human activity, and noise associated with the construction activities. This would be a significant impact if winter foraging is disturbed over a wide enough area.

**Mitigation Measure BIO-OPT4-5:** Implement BIO-PPWS-5.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-6: Construction activities associated with the PacifiCorp Option 4 alternative could result in loss of habitat within the mule deer winter range. *Less than significant with mitigation (Class II).***

The quality of winter range is limited along the ROW adjacent to Highway 97, where traffic and residences are a source of ongoing disturbance. However, the portion of the PacifiCorp Option 4 alternative from Pole 9/45 south to Pole 19/45 would be located within the mule deer winter range (Bob Shafer, California Department of Fish and Game, personal communication). Mule deer from the Mount Shasta area utilize this area during severe winter conditions. Implementation of a portion of the PacifiCorp Option 4 alternative would result in displacement of the deer due to construction activity and in approximately 2.87 acres of temporary habitat loss as a result of site preparation of a pull and tension site at Pole 19/45 as well as the permanent loss of 0.012 acres resulting from construction of a new permanent access road near Pole 12/47. This disturbance would not substantially affect the quality or availability of winter range forage; however, the noise and human presence in the area may be significant in displacing animals from traditional winter “yarding” areas.

**Mitigation Measure BIO-OPT4-6:** Implement BIO-PPWS-6.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-OPT4-7: The removal of multiple large trees could affect the distribution of animals dependent on these habitat elements, such as American marten (*Martes americana*), larger raptors, cavity-nesting birds, and bats. *Less than significant with mitigation (Class II).***

Shifting of the transmission ROW line corridor to accommodate PacifiCorp Option 4 alternative could result in the removal of trees larger than 30 inches dbh and could provide habitat for cavity-nesting birds and bats. Given the abundance of trees of similar stature in nearby stands, the effect of removal would not be significant.

**Mitigation Measure BIO-OPT4-7:** PacifiCorp shall replant trees of the same specie as those removed south of the new ROW within the 15 feet zone that was previously part of the ROW with in-kind for species at a ratio of 4:1 (replacement to removal), and provide for irrigation, weed removal, and browse protection to ensure that at least 80% of the planted trees are surviving at the end of five years.

**Significance after Mitigation:** Less than significant.

***Operation***

As discussed under the Proposed Project and Weed Segment, there is a potential for raptor and other large bird to collide/be electrocuted during the operation of the PacifiCorp Option 4 alternative; however, the design of PacifiCorp Option 4 alternative

incorporates the Avian Plan Protection Guidelines providing ‘avian safe’ structures and adequate horizontal (between 6 to 10 feet) and vertical (not less than six feet) distance between conductors to minimize impacts to raptors and other large birds.

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- b) **Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS. *No impact.***

Beaughton Creek, which represents the principal riparian community in the vicinity of PacifiCorp Option 4 alternative parallels a portion of the alternative alignment to the south. A small section of permanent road just off Hoy Road impinges slightly on the Beaughton Creek riparian zone, but no significant impacts to Beaughton Creek or associated habitat are anticipated as a result of this alternative. Similar to the Proposed Project, portions of the Eastside Pine community might be classified as PP/AB, a type “considered rare and worthy of consideration by CNDDDB” (CDFG, 2003). However, potential presence of this habitat is represented only by scattered occurrences of similar vegetation, in areas too small to support biological resources associated with PP/AB, because the presence of bitterbrush in the understory is only intermittent. Therefore, pole replacement associated with this alternative is not expected to permanently impact any of this type of habitat community.

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- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *Less than significant with mitigation (Class II).***

No additional impacts to wetlands would occur through implementation of the PacifiCorp Option 4 alternative; although, as shown in Figure 4.2-2, installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands and activities associated with Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands. Additionally, Pole 16/44 and Pole 17/44 are sited in vernal swales, per the permit conditions of the Nationwide Permit attained by PacifiCorp for construction of the Northern Portion of the Yreka-Weed 115kV Transmission Line Project, these swales are to be avoided and a 20-foot construction free buffer needs to be maintained; therefore, no impacts to these jurisdictional features would occur. These impacts to wetlands would be common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-OPT4-8: Construction would impact jurisdictional waters of the United States, including small drainages and seasonal wetlands. *Less than significant with mitigation (Class II).***

**Mitigation Measure BIO-OPT4-8: Implement BIO-PPWS-7.**

**Significance after Mitigation:** Less than significant.

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- 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. *Less than significant (Class III).***

As discussed above, impacts from powerline bird strikes would be less than significant because the PacifiCorp Option 4 alternative is designed to be ‘avian safe’. Issues regarding deer winter range were fully discussed and mitigated above as well; therefore, no impacts to wildlife movement or on wildlife nursery sites are expected as a result of PacifiCorp Option 4 alternative.

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- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *No impact.***

The Conservation Element of the Siskiyou County General Plan includes general objectives relating to biological resources. These objectives include 1) “to preserve, protect and manage the Forest Lands as both wild habitat and a productive economic resource” and 2) “to preserve and maintain streams, lakes and forest open space as a means of providing natural habitat for species of wildlife”.

Like the Proposed Project, the PacifiCorp Option 4 alternative, would comply with these general objectives by completely avoiding construction that would affect Forest Lands, streams and lakes.

The Open Space and Conservation Elements of the City of Weed General Plan include a commitment to “protect, preserve, and enhance the natural ...resources of the City of Weed.” Specific measures are to assess the impact of land development projects and develop and adhere to plans for the balanced consideration of protection of wildlife and wildlife habitats.

The portion of the PacifiCorp Option 4 alternative within the City of Weed would not conflict with the City’s General Plan by 1) utilizing the existing right-of-way 2) using existing and overland access roads to the maximum extent possible while minimizing the construction of any new permanent access roads, and 3) by avoiding and/or minimizing impacts to riparian zones, streams and wetlands.

Additionally, there are no tree policies/ordinances or other local policies or ordinances applicable to the PacifiCorp Option 4 alternative.

Therefore, no conflict with local policies or ordinances protecting biological resources would result from approval and implementation of the PacifiCorp Option 4 alternative.

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## Mackintosh/ALJ Variation A Alternative

- 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 CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory). *Less than significant with mitigation (Class II).***

### ***Construction***

The Mackintosh/ALJ Variation A alternative would cause temporary disturbance to habitat, within the Eastside Pine habitat type, due to site preparation associated with four tangent structure work areas and five pull and tension sites. Mackintosh/ALJ Variation A alternative would also cause an additional 2,500 square feet of temporary disturbance outside the Weed Substation footprint due to needed preparation of a pad area at the Weed Junction Substation for installation of a temporary 115/69 kV transformer, transformer protection outside of the Weed Substation footprint. After line construction, all disturbed work areas, pull and tension sites, and the Weed Substation temporary transformer pad area, approximately 2.53 acres<sup>9</sup> (i.e., 0.38 and 0.06 acres more than the Proposed Project and PacifiCorp Option 4 alternative, respectively) acres would be restored.

As described in Section 3, *Alternatives and Cumulative Projects*, the road network proposed for the PacifiCorp Option 4 alternative would be substantially the same for Mackintosh/ALJ Variation A alternative. Therefore, the use and impacts would be similar. Although temporary impacts from overland access would be slightly less than PacifiCorp Option 4 alternative as construction equipment would not need to travel 15 feet north of the existing poles to the proposed pole locations; this decrease in impacts would be negligible. Mackintosh/ALJ Variation A alternative would also require 0.09 acres of new permanent roads, near Pole 12/47 and between Pole 5/48 and Pole 6/48, which would be located in Eastside Pine habitat type.

Like the Proposed Project and the PacifiCorp Option 4 alternative, brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation would cause approximately 5,225 square feet (i.e., 0.12 acres) of temporary disturbance. Additionally, approximately 12 trees including large cedars and pines would need to be removed within the last 500 feet of the transmission line corridor leading into the Weed

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<sup>9</sup> This calculation includes temporary disturbance resulting from brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation.

Junction Substation. Clearing of flammable fuels (i.e., vegetation) at least 10 feet in each direction around wood poles would be conducted.

The disturbance at any one pole site is limited in time and the pole locations themselves are somewhat flexible, allowing crews to avoid sensitive areas that are known and are themselves present in small, discrete polygons (i.e., streams, sensitive plant locations, etc.). No impacts to wetlands would occur from implementation of the Mackintosh/ALJ Variation A alternative; although installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands and activities associated with Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands. These impacts to wetlands would be common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-VAR/A-1: Construction activities would impact habitat and may potentially impact habitat elements such as dens and burrows and transient wildlife. *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation A alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, access roads, operation of heavy equipment, and installation and removal of poles could potentially impact habitat elements such as dens and burrows and transient wildlife due to habitat disturbance and increased noise. These resources may have special status and/or support species with special status.

**Mitigation Measure BIO-VAR/A-1: Implement BIO-PPWS-1.**

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/A-2: Construction activities would impact habitat and may result in direct or indirect loss of known (e.g., ten locations of Pickering's ivesia) and unknown populations of special-status plant species. *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation A alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could directly affect known and/or unknown populations of special-status plant species through root or seed damage or indirectly through changes in soil profile. Ten recorded sites (i.e., three more than and the same as the Proposed Project and PacifiCorp Option 4 alternative) occupied by Pickering's ivesia, a CNPS List 1B plant, could incur temporary and potentially significant disturbance (see Figure 4.4-3).

**Mitigation Measure BIO-VAR/A-2: Implement BIO-PPWS-2a and BIO-PPWS-2b.**

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/A-3: Construction activities could potentially spread noxious or invasive weeds into areas where noxious or invasive weeds may or may not currently exist. *Less than significant with mitigation (Class II).***

New noxious or invasive weed species could be transported into the Mackintosh/ALJ Variation A alternative area if seeds or plant material are carried on vehicles and construction equipment, with the potential to affect reduce productivity and diversity of upland habitat within the alternative areas as well as unknown habitat or populations outside of the alternative areas.

**Mitigation Measure BIO-VAR/A-3:** Implement BIO-PPWS-3.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/A-4: Construction activities may impact active nest sites. *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation A, such as grading, blading and preparation of temporary work areas, pull and tension sites, access roads and the Weed Substation site; operation of heavy equipment, installation and removal of poles, and conductor installation, could disturb nesting birds and cause nest site abandonment and/or reproductive failure through an increase in noise and/or removal of habitat.

**Mitigation Measure BIO-VAR/A-4:** Implement BIO-PPWS-4.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/A-5: Construction activities could potentially disturb foraging bald eagles: *Less than significant with mitigation (Class II).***

The Mackintosh/ALJ Variation A alternative area does not contain optimal nesting, roosting, or foraging habitat for the bald eagle, and no eagle nests or roosts would be directly affected by the Mackintosh/ALJ Variation A area. However, given the proximity of the Mackintosh/ALJ Variation A alternative area to Lake Shastina and the known nest on the southeast end of Lake Shastina, bald eagles may occasionally fly through and forage within the Mackintosh/ALJ Variation A alternative area. Foraging bald eagles could potentially be disturbed due to the increased vehicular traffic, human activity, and

noise associated with the construction activities. This would be a significant impact if winter foraging is disturbed over a wide enough area.

**Mitigation Measure BIO-VAR/A-5:** Implement BIO-PPWS-5.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/A-6: Construction activities associated with the Mackintosh/ALJ Variation A alternative could result in loss of habitat within the mule deer winter range. *Less than significant with mitigation (Class II).***

The quality of winter range is limited along the ROW adjacent to Highway 97, where traffic and residences are a source of ongoing disturbance. However, the portion of the Mackintosh/ALJ Variation A alternative from Pole 9/45 south to Pole 19/45 would be located within the mule deer winter range (Bob Shafer, California Department of Fish and Game, personal communication, as cited in PacifiCorp (2006)). Mule deer from the Mount Shasta area utilize this area during severe winter conditions. Implementation of a portion of the Mackintosh/ALJ Variation A alternative would result in displacement of the deer due to construction activity and in approximately 2.87 acres of temporary habitat loss as a result of site preparation of a pull and tension site at Pole 19/45 as well as the permanent loss of 0.012 acres resulting from construction of a new permanent access road near Pole 12/47. This disturbance would not substantially affect the quality or availability of winter range forage; however, the noise and human presence in the area may be significant in displacing animals from traditional winter “yarding” areas.

**Mitigation Measure BIO-VAR/A-6:** Implement Mitigation Measure BIO-PPWS-6.

**Significance after Mitigation:** Less than significant.

### ***Operation***

As discussed under the Proposed Project and Weed Segment, there is a potential for raptor and other large bird to collide/be electrocuted during the operation of the Mackintosh/ALJ Variation A alternative; however, the design of Mackintosh/ALJ Variation A alternative incorporates the Avian Plan Protection Guidelines providing ‘avian safe’ structures and adequate horizontal (between 6 to 10 feet) and vertical (not less than six feet) distance between conductors to minimize impacts to raptors and other large birds.

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- b) **Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS. *No Impact.***

Beaughton Creek, which represents the principal riparian community in the vicinity of Mackintosh/ALJ Variation A alternative, is located in the vicinity of Pole 19/45 and south of the alternative alignment. A small section of permanent road just off Hoy Road impinges slightly on the Beaughton Creek riparian zone, but no significant impacts to Beaughton Creek or associated habitat are anticipated as a result of this alternative. Similar to the Proposed Project, portions of the Eastside Pine community might be classified as PP/AB, a type “considered rare and worthy of consideration by CNDDDB” (CDFG, 2003). However, potential presence of this habitat is represented only by scattered occurrences of similar vegetation, in areas too small to support biological resources associated with PP/AB, because the presence of bitterbrush in the understory is only intermittent. Therefore, pole replacement for the Mackintosh/ALJ Variation A alternative is not expected to permanently impact any of this type of habitat community.

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- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *Less than significant with mitigation (Class II).***

No additional impacts to wetlands would occur through implementation of the Mackintosh/ALJ Variation A alternative; although installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands (Figure 4.2.-2) and activities associated with Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands. Additionally, Pole 16/44 and Pole 17/44 are sited in vernal swales, per the permit conditions of the Nationwide Permit attained by PacifiCorp for construction of the Northern Portion of the Yreka-Weed 115kV Transmission Line Project, these swales are to be avoided and a 20-foot construction free buffer needs to be maintained; therefore, no impacts to these jurisdictional features would occur. These impacts to wetlands would be common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-VAR/A-7: Construction would impact jurisdictional waters of the United States, including small drainages and seasonal wetlands. *Less than significant with mitigation (Class II).***

**Mitigation Measure BIO-VAR/A-7: Implement BIO-PPWS-7.**

**Significance after Mitigation:** Less than significant.

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- 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. *Less than significant (Class III).***

As discussed above, impacts from powerline bird strikes would be less than significant because the Mackintosh/ALJ Variation A alternative is designed to be 'avian safe'. Issues regarding deer winter range were fully discussed and mitigated above as well; therefore, no impacts to wildlife movement or on wildlife nursery sites are expected as a result of Mackintosh/ALJ Variation A alternative.

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e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *No impact.***

As discussed above, under PacifiCorp Option 4, there would be no conflict with local policies or ordinances protecting biological resources would result from approval and implementation of the Mackintosh/ALJ Variation A alternative.

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## **Mackintosh/ALJ Variation B Alternative**

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 CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory). *Less than significant with mitigation (Class II).***

The Mackintosh/ALJ Variation B alternative would cause temporary disturbance to habitat, within the Eastside Pine habitat type, due to site preparation associate with four tangent structure work areas and five pull and tension sites. After line construction, all disturbed work areas and pull and tension sites, approximately 2.47 acres<sup>10</sup> (i.e., 0.32 acres more than the Proposed Project; same as PacifiCorp Option 4; and 0.06 acres less than Mackintosh/ALJ Variation A) acres would be restored.

It is assumed that the same road network for the PacifiCorp Option 4 alternative would be used for Mackintosh/ALJ Variation B alternative. Therefore, the use and impacts would be similar. Although temporary impacts from overland access would be slightly less than PacifiCorp Option 4 alternative as construction equipment would not need to travel 15 feet north of the existing poles to the proposed pole locations; this decrease in impacts would be negligible. Mackintosh/ALJ Variation B alternative would also require 0.09 acres of new permanent roads, near Pole 12/47 and between Pole 5/48 and Pole 6/48, which would be located in Eastside Pine habitat type.

Like the Proposed Project, PacifiCorp Option 4 alternative and Mackintosh/ALJ Variation A alternative, brush clearing on an existing access road between Pole 18/48 and

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<sup>10</sup> This calculation includes temporary disturbance resulting from brush clearing on an existing access road between Pole 18/48 and 19/48 near the Weed Junction Substation.

19/48 near the Weed Junction Substation would cause approximately 5,225 square feet (i.e., 0.12 acres) of temporary disturbance. Additionally, approximately 12 trees including large cedars and pines would need to be removed within the last 500 feet of the transmission line corridor leading into the Weed Junction Substation. Clearing of flammable fuels (i.e., vegetation) at least 10 feet in each direction around wood poles would be conducted.

The disturbance at any one pole site is limited in time and the pole locations themselves are somewhat flexible, allowing crews to avoid sensitive areas that are known and are themselves present in small, discrete polygons (i.e., streams, sensitive plant locations, etc.). No impacts to wetlands would occur from implementation of the Mackintosh/ALJ Variation B alternative; although installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands and activities associated with Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands. These impacts to wetlands would be common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-VAR/B-1: Construction activities would impact habitat and may potentially impact habitat elements such as dens and burrows and transient wildlife. *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation B alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could potentially impact habitat elements such as dens and burrows and transient wildlife due to habitat disturbance and increased noise. These resources may have special status and/or support species with special status.

**Mitigation Measure BIO-VAR/B-1: Implement BIO-PPWS-1.**

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/B-2: Construction activities would impact habitat and may result in direct or indirect loss of known (e.g., ten locations of Pickering's ivesia) and unknown populations of special-status plant species. *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation B alternative, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, and installation and removal of poles could directly affect known and/or unknown populations of special-status plant species through root or seed damage or indirectly through changes in soil profile. Ten recorded sites (i.e., four more than the Proposed Project and the same impact as PacifiCorp Option 4 alternative and Mackintosh/ALJ Variation A alternative) occupied by Pickering's ivesia,

a CNPS List 1B plant, could incur temporary and potentially significant disturbance (see Figure 4.4-3).

**Mitigation Measure BIO-VAR/B-2:** Implement BIO-PPWS-2a and BIO-PPWS-2b.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/B-3: Construction activities could potentially spread noxious or invasive weeds into areas where noxious or invasive weeds may or may not currently exist. *Less than significant with mitigation (Class II).***

New noxious or invasive weed species could be transported into the Mackintosh/ALJ Variation B alternative area if seeds or plant material are carried on vehicles and construction equipment, with the potential to affect reduce productivity and diversity of upland habitat within the alternative areas as well as unknown habitat or populations outside of the alternative areas.

**Mitigation Measure BIO-VAR/B-3:** Implement BIO-PPWS-3.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/B-4: Construction activities may impact active nest sites: *Less than significant with mitigation (Class II).***

Construction activities associated with the Mackintosh/ALJ Variation B, such as grading, blading and preparation of temporary work areas, pull and tension sites, and access roads; operation of heavy equipment, installation and removal of poles, and conductor installation, could disturb nesting birds and cause nest site abandonment and/or reproductive failure through an increase in noise and/or removal of habitat.

**Mitigation Measure BIO-VAR/B-4:** Implement BIO-PPWS-4.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/B-5: Construction activities could potentially disturb foraging bald eagles: *Less than significant with mitigation (Class II).***

The Mackintosh/ALJ Variation B alternative area does not contain optimal nesting, roosting, or foraging habitat for the bald eagle, and no eagle nests or roosts would be directly affected by the Mackintosh/ALJ Variation B area. However, given the proximity

of the Mackintosh/ALJ Variation B alternative area to Lake Shastina and the known nest on the southeast end of Lake Shastina, bald eagles may occasionally fly through and forage within the Mackintosh/ALJ Variation B alternative area. Foraging bald eagles could potentially be disturbed due to the increased vehicular traffic, human activity, and noise associated with the construction activities. This would be a significant impact if winter foraging is disturbed over a wide enough area.

**Mitigation Measure BIO-VAR/B-5:** Implement BIO-PPWS-5.

**Significance after Mitigation:** Less than significant.

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**Impact BIO-VAR/B-6: Construction activities associated with the PacifiCorp Option 4 alternative could result in loss of habitat within the mule deer winter range. *Less than significant with mitigation (Class II).***

The quality of winter range is limited along the ROW adjacent to Highway 97, where traffic and residences are a source of ongoing disturbance. However, the portion of the Mackintosh/ALJ Variation B alternative from Pole 9/45 south to Pole 19/45 would be located within the mule deer winter range (Bob Shafer, California Department of Fish and Game, personal communication, as cited in PacifiCorp (2006)). Mule deer from the Mount Shasta area utilize this area during severe winter conditions. Implementation of a portion of the Mackintosh/ALJ Variation B alternative would result in displacement of the deer due to construction activity and in approximately 2.87 acres of temporary habitat loss as a result of site preparation of a pull and tension site at Pole 19/45 as well as the permanent loss of 0.012 acres resulting from construction of a new permanent access road near Pole 12/47. This disturbance would not substantially affect the quality or availability of winter range forage; however, the noise and human presence in the area may be significant in displacing animals from traditional winter “yarding” areas.

**Mitigation Measure BIO-VAR/B-6:** Implement Mitigation Measure BIO-PPWS-6.

**Significance after Mitigation:** Less than significant.

### ***Operation***

As discussed under the Proposed Project and Weed Segment, there is a potential for raptor and other large bird to collide/be electrocuted during the operation of the Mackintosh/ALJ Variation B alternative; however, the design of Mackintosh/ALJ Variation B alternative incorporates the Avian Plan Protection Guidelines providing ‘avian safe’ structures and adequate horizontal (between 6 to 10 feet) and vertical (not less than six feet) distance between conductors to minimize impacts to raptors and other large birds.

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- b) **Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS. *No Impact.***

Beaughton Creek, which represents the principal riparian community in the vicinity of Mackintosh/ALJ Variation B alternative, is located in the vicinity of Pole 19/45 and south of the alternative alignment. A small section of permanent road just off Hoy Road impinges slightly on the Beaughton Creek riparian zone, but no significant impacts to Beaughton Creek or associated habitat are anticipated as a result of this alternative. Similar to the Proposed Project, portions of the Eastside Pine community might be classified as PP/AB, a type “considered rare and worthy of consideration by CNDDDB” (CDFG, 2003). However, potential presence of this habitat is represented only by scattered occurrences of similar vegetation, in areas too small to support biological resources associated with PP/AB, because the presence of bitterbrush in the understory is only intermittent. Therefore, pole replacement for the Mackintosh/ALJ Variation B alternative is not expected to permanently impact any of this type of habitat community.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. *Less than significant with mitigation (Class II).***

No additional impacts to wetlands would occur through implementation of the Mackintosh/ALJ Variation B alternative; although installation of Pole 3/45 through Pole 6/45 would permanently impact 0.001 acres of jurisdictional wetlands and activities associated with Pole 21/44 and 1/45 would temporarily impact 0.002 acres of jurisdictional wetlands (Figure 4.2-2). Additionally, Pole 16/44 and Pole 17/44 are sited in vernal swales, per the permit conditions of the Nationwide Permit attained by PacifiCorp for construction of the Northern Portion of the Yreka-Weed 115kV Transmission Line Project, these swales are to be avoided and a 20-foot construction free buffer needs to be maintained; therefore, no impacts to these jurisdictional features would occur. These impacts to wetlands would be common to the portion of the Proposed Project common to all alternatives.

**Impact BIO-VAR/B-7: Construction would impact jurisdictional waters of the United States, including small drainages and seasonal wetlands. *Less than significant with mitigation (Class II).***

**Mitigation Measure BIO-VAR/B-7: Implement BIO-PPWS-7.**

**Significance after Mitigation:** Less than significant.

- 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. *Less than significant (Class III).***

As discussed above, impacts from powerline bird strikes would be less than significant because the Mackintosh/ALJ Variation B alternative is designed to be 'avian safe'. Issues regarding deer winter range were fully discussed and mitigated above as well; therefore, no impacts to wildlife movement or on wildlife nursery sites are expected as a result of Mackintosh/ALJ Variation B alternative.

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- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *No impact.***

As discussed above, under PacifiCorp Option 4, there would be no conflict with local policies or ordinances protecting biological resources would result from approval and implementation of the Mackintosh/ALJ Variation B alternative.

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## No Project

For the purposes of this analysis, the No Project alternative includes the following two assumptions: 1) the project would not be implemented and the existing conditions in the study area would not be changed; and 2) a new transmission line and/or additional power generation would be constructed in or near the study area to supply power to the Weed area. Given the highly speculative nature of the No Project alternative assumptions, this analysis is qualitative.

- 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 CDFG or USFWS (including List 1A, 1B, and 2 plant species of the CNPS Inventory).**

### ***Construction***

Construction of a new transmission line and/or a power plant under the No Project scenario would likely result in habitat loss, mainly in the Eastside Pine habitat type because of its widespread distribution in the Weed area. Noise levels associated with construction and human presence would be similar to what would occur under the Proposed Project and Weed Segment; however, the overall construction period would likely be longer than that of the Proposed Project and Weed Segment, potentially resulting in a longer temporary disturbance period. Additionally, construction of a new power plant, depending on siting could potentially impact a larger area of habitat having greater impacts than the Proposed Project and Weed Segment.

## **Operations**

A new transmission line corridor could result in habitat fragmentation which could disrupt the species using an area, at the expense of those requiring larger home ranges and to the advantage of animals more accustomed to human beings and forest edges. Noise from associated maintenance and inspection activities would be similar to the Proposed Project and Weed Segment components.

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- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.**

Construction of a new transmission line and/or a power plant under the No Project scenario may require removal of riparian habitat if suitable upland areas are not available. However, given the speculative nature of the No Project scenario, it cannot be determined if riparian habitat or other sensitive natural communities would be significantly impacted by construction, operation or maintenance or the No Project alternative.

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- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

Construction of a new transmission line and/or a power plant under the No Project scenario may require filling of wetlands if suitable upland areas are not available. Like the Proposed Project and Weed Segment, it would be anticipated that the final design of a transmission line could incorporate flexibility as to pole locations to avoid impacts to wetlands. However, given the speculative nature of the power plant scenario, it cannot be determined if federally protected wetlands would be significantly impacted by its construction, operation or maintenance.

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- 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.**

As noted above, new transmission lines could fragment habitat, and one result might be to impede the movement of animals dependent on mature forests or plants associated with closed canopy stands of trees. The effect could alter traditional patterns of home range and wildlife movement. Additionally, construction of a new power plant,

depending on siting could potentially impact a larger area of habitat having greater impacts than the Proposed Project and Weed Segment.

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**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.**

The No Project alternative would likely be located within close proximity to the Proposed Project and Weed Segment, an area not currently covered by any habitat conservation plan or other approved governmental habitat plan. Furthermore, the area north of Siskiyou County is outside of California, and the area east, Modoc County, is not currently covered by any habitat conservation plan or other approved governmental habitat plan. Therefore, similar to the Proposed Project and Weed Segment, the No Project alternative would not result in any conflicts with an adopted habitat conservation plan or natural community conservation plan.

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