3.7 Vegetation, Wildlife, and Wetlands

This section describes the vegetation, wildlife, and wetlands that are known to occur in the project area and evaluates the impacts of the Proposed Project on these resources. The discussion of biological resources is based on a focused literature review, informal consultation with resource agencies, and observations made during field visits. Additional information about these resources is contained in Section 4.7 of the Master EIR.

3.7.1 Affected Environment/Environmental Setting

Plant Communities

There are a variety of plant communities present in the project area. The main plant communities known to occur in the project area are listed in Table 12 and shown on Figure 7. The identification and delineation of these habitat types are based on the draft Trinity River Riparian Vegetation Map 2008 Update (TRRP 2009). The habitat and cover types discussed in this section are distinct from the types of jurisdictional wetlands and "other waters" that are discussed in Section 3.7.1.4. The main plant communities present are described below. Those plant communities as well as others that may be present in the project area are discussed in more detail in the Master EIR (Section 4.7).

Table 12. Plant Community Types Within the Project Area Boundaries.

Plant Community Types	Acres
Annual Grassland	33.87
Montane Riparian	14.95
Barren	14.91
Ponderosa Pine	8.98
Douglas-fir	7.55
Valley Foothill Riparian	6.46
Urban	4.26
Blue Oak-Foothill Pine	3.45
Fresh Emergent Wetland	2.39
Montane Hardwood	1.62
Lacustrine	0.53
Mixed Chaparral	0.42
Perennial Grassland	0.23

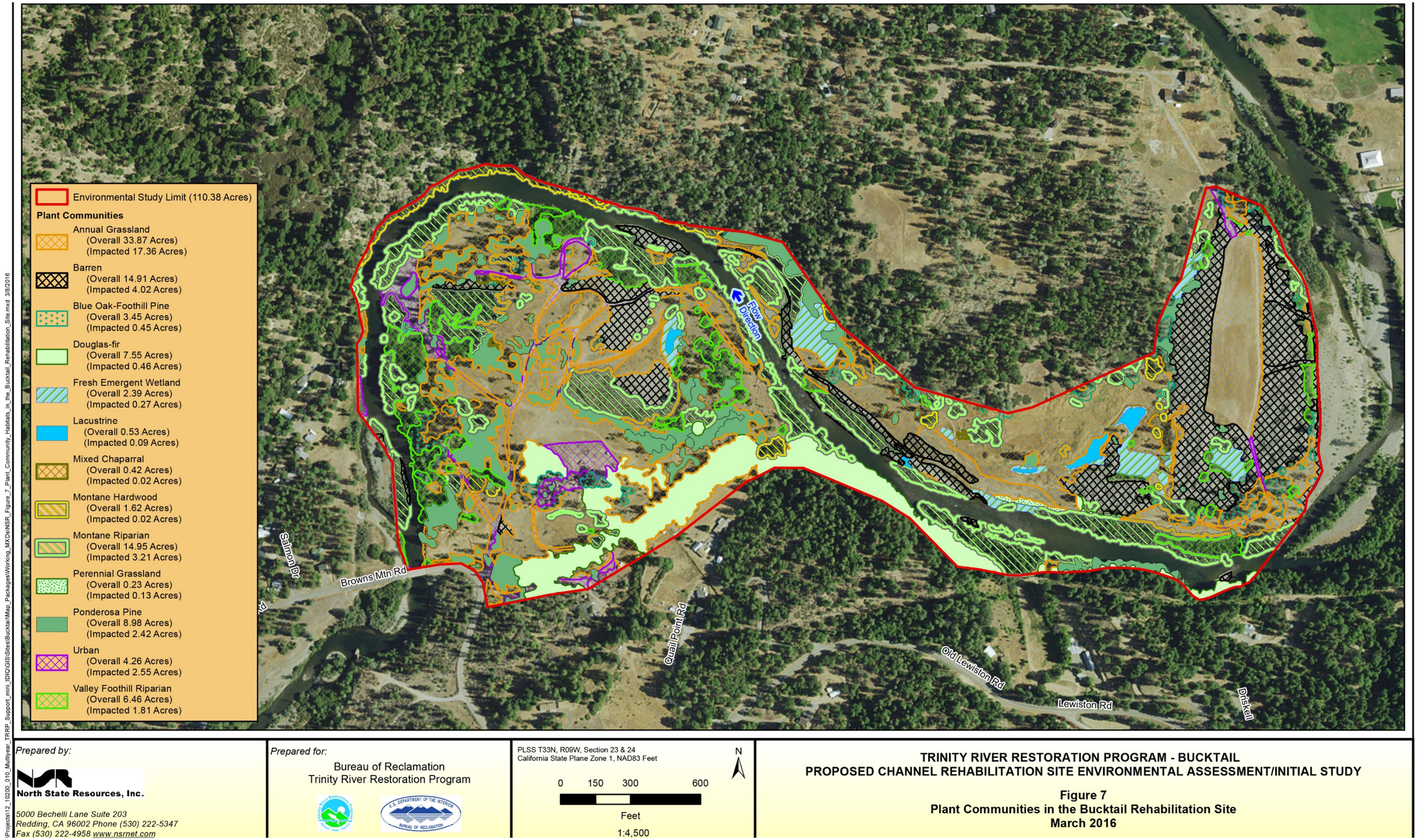

Figure 7. Plant Community Habitats in the Bucktail Rehabilitation Site. (Habitat classification follows the California Wildlife Habitat Relationships model).

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Fresh Emergent Wetland

Fresh emergent wetland communities are present in the project area. Fresh emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. Fresh emergent wetland habitat occurs in backwaters and depressions along the river and in tailing pits that are saturated for long periods. Species present in this habitat include American tule (*Scirpus americanus*), narrow-leaved cattail (*Typha angustifolia*), dense sedge (*Carex densa*), and common spikerush (*Eleocharis macrostachya*).

Annual Grassland

Annual grassland communities are present in the project area. Annual grasslands are located on the terraces above montane riparian habitat but below the woodlands. Species present in this habitat include a variety of introduced species, such as Kentucky bluegrass (*Poa pratensis*), wild oats (*Avenafatua*), soft brome (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), cheatgrass (*B. tectorum*), and hare barley (*Hordeum murinum* ssp. *leporinum*); native perennial species, such as creeping wildrye (*Leymus triticoides*); and sedges (*Carex* spp.). Common forbs include broadleaf filaree (*Erodium botrys*), redstem filaree (*E. cicutarium*), California poppy (*Eschscholzia californica*), turkey mullein (*Eremocarpus setigerus*), true clovers (*Trifolium* spp.), burclover (*Medicago polymorpha*), and many others.

Montane Riparian

Montane riparian communities occur adjacent to and below the OHWM of the Trinity River, as well as other relatively wet locations, and are a major component of the habitat types within the project area. The montane riparian community is composed of riparian plant species that are typical for Trinity County. Dominant tree species include bigleaf maple (*Acer macrophyllum*), white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), black cottonwood, and Goodding's black willow (*Salix gooddingii*). Understory species include mugwort (*Artemisia douglasiana*), virgin's bower (*Clematis ligusticifolia*), American dogwood (*Cornus sericea*), Oregon false golden-aster (*Heterotheca oregona*), dalmatian toadflax (*Linaria dalmatica*), white sweet clover (*Melilotus albus*), musk monkeyflower (*Mimulus moschatus*), straggly gooseberry (*Ribes divaricatum*), Himalayan blackberry (*Rubus armeniacus*), California blackberry (*R. ursinus*), narrowleaf willow (*Salix exigua*), arroyo willow, shining willow, and California wild grape (*Vitis californica*).

Blue Oak-Foothill Pine

The blue oak-foothill pine community type occurs as a minor component of the project area. The dominant overstory species present in this habitat is gray pine (*Pinus sabiana*). Blue oak (*Quercus douglasii*) grows among the gray pines and understory vegetation typically includes greenleaf manzanita (*Arctostaphylos patula*), buckbrush (*Ceanothus cuneatus*), skunkbrush (*Rhus aromatica*), and poison oak (*Toxicodendron diversilobum*). The herbaceous layer includes ripgut brome, cheatgrass, and false hedge-parsley (*Torilis arvensis*).

Ponderosa Pine

Ponderosa pine community type occurs in the project area. The dominant overstory species present in this habitat is ponderosa pine. Understory vegetation includes greenleaf manzanita, buckbrush, and poison-oak. The underlying herbaceous layer includes ripgut brome and cheatgrass.

Montane Hardwood

The montane hardwood community type is present in the project area. Dominant tree species observed within this plant community include Pacific madrone (*Arbutus menziesii*), bigleaf maple, canyon live oak (*Quercus chrysolepis*), and black oak (*Q. kelloggii*). Associated shrub species observed include greenleaf manzanita, buckbrush, skunkbrush, snowberry (*Symphoricarpos albus* var. *laevigatus*), and poison-oak. The underlying herbaceous layer includes ripgut brome, cheatgrass, blue wild rye (*Elymus glaucus*), silver bush lupine (*Lupinus albifrons*), purple sanicle (*Sanicula bipinnatifida*), and false hedge-parsley.

Mixed Chaparral

The mixed chaparral community type is present in the project area. Mixed chaparral is a structurally homogeneous brushland type dominated by shrubs with thick, stiff, heavily cutinized evergreen leaves. The dominant species typically include greenleaf manzanita and buckbrush.

Douglas-fir

The Douglas-fir community type is present in the uplands of the project area. As the name implies, the dominant overstory species in this community is Douglas-fir. These areas are comprised of greater than 50 percent cover by Douglas-fir regardless of the number of hardwood or conifer species in the overstory.

Valley-Foothill Riparian

The valley-foothill community type is present at the site. This community is found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. They are generally associated with low velocity flows, floodplains, and gentle topography. Dominant species in the canopy layer are cottonwood (*Populus* spp.), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*). Subcanopy trees are white alder, boxelder (*Acer negundo*) and Oregon ash. Typical understory shrub layer plants include wild grape, wild rose (*Rosa woodsii*), California blackberry, blue elderberry (*Sambucus cerulean*), poison-oak, buttonbush (*Cephalanthus occidentalis*), and willows (*Salix* spp.). The herbaceous layer consists of sedges, rushes, grasses, miner's lettuce (*Claytonia perfoliata*), Douglas sagewort (*Artemisia douglasiana*), poison-hemlock, and hoary nettle (*Urtica dioica* spp. *holosericea*).

Barren

Barren land consists primarily of rock, pavement, and sand. Vegetation is usually not present, although sparse opportunistic grasses and forbs or weedy species may occur. Barren land occurs as gravel bars adjacent to the river as well as other areas throughout the project area.

Urban

The urban community type varies by vegetation. Typically this habitat consists mostly of private landscaping and public landscaping including lawns, shrubs, and both evergreen and deciduous trees. The developed campground at the Bucktail site is also considered urban.

Perennial Grassland

Perennial grassland habitat typically occurs on ridges and south-facing slopes, alternating with forest and scrub in the valleys and on north-facing slopes. These areas typically have greater than 50 percent cover of native grasses and less than 10 percent total cover by trees or shrub species. Species present in this habitat include a variety of introduced and native perennial species.

Lacustrine

Lacustrine habitats can be inland depressions or dammed riverine channels containing standing water. They may vary from small ponds less than one acre to large areas covering several square miles. Depth can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, intermittent lakes (e.g., playa lakes) and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom.

Special-Status Plant Species

In Trinity County, the communities described above provide habitat for a number of special-status plant species. For the purposes of this evaluation, special-status species are (1) designated as rare by the CDFW or the USFWS or are listed as threatened or endangered under the CESA or the federal ESA; (2) proposed for designation as rare or listing as threatened or endangered; (3) state or federal candidate species for listing as threatened or endangered; (4) identified by the CDFW as Species of Special Concern or California Fully Protected Species; (5) designated as sensitive by the BLM or USFWS; or (6) plants designated as California Native Plant Society (CNPS) List 1A, 1B, or 2.

Species designated "BLM sensitive" are not federally or state listed as endangered or threatened, nor are they proposed or candidates for listing; rather, they are designated by BLM's State Director for special management consideration. BLM Manual Section 6840 defines sensitive species as "…those species (1) that are under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) that are inhabiting ecological refugia or other specialized or unique habitats." Existing California-BLM policy concerning the designation of sensitive species identifies two conditions that must be met before a species may be designated sensitive: (1) a significant population of the species must occur on BLM-administered lands, and (2) the potential must exist for improvement of the species' condition through BLM management. BLM's policy provides sensitive species with the same level of protection afforded federal candidate species.

A list of special-status plant species considered for the Proposed Project was compiled by performing searches of the CNDDB and CNPS Electronic Inventory database, informally consulting with the CDFW and USFWS, and reviewing biological literature for the project region, including BLM's special-status plants list for the Redding Field Office (USDI BLM 2013). A list of federal special-

status species potentially occurring in Trinity County was obtained from the USFWS. The list includes species potentially occurring in Trinity County that have endangered, threatened, or candidate status. (Refer to Table 4.7-1 in the Master EIR for the list of species considered.) The project area has been surveyed for special status plant species following protocols outlined in the Master EIR. In 2013 and 2014 five special-status plant surveys were conducted on the majority of the Bucktail site (5/7/13, 5/30/13, 7/12/13, 4/29/14, and 5/12/14), but those surveys did not include the upstream portion of the new 2015 proposed ESL that includes the new U-4 area. The upstream portion was surveyed as part of the 2005 surveys for the Dark Gulch site (April 11-15, May 2-6, and June 20-22). On June 17, 2015, a new botanical survey of the expanded ESL was conducted. The botanical studies were conducted in accordance with guidelines developed by the CDFW and the surveys were conducted when special-status plant species were most likely to be identifiable (i.e., the blooming period). No special-status plants were detected in the project area during any of these pre-construction botanical surveys (TCRCD 2015).

Non-Native and Invasive Plant Species

Non-native and invasive species are present in the project area. Information regarding invasive species is presented in the Master EIR (Section 4.7). The approximate location and extent of high priority invasive plants were noted during vegetation surveys conducted for the site in 2013, 2014, and 2015. High priority invasive species present at the site included: Himalayan blackberry, yellow star-thistle (*Centaurea solstitialis*), dalmatian toadflax, and Spanish broom (*Spartium junceum*). Himalayan blackberry was dominant in the understory of the montane riparian habitat type, and yellow star-thistle and dalmatian toadflax were present in the annual grassland habitat type. Other notable invasive weeds detected during the surveys include: Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), Klamath weed (*Hypericum perforatum*), cheatgrass, ripgut brome, and red brome (*Bromus madritensis*).

Information about these plant's biology, habitat, and management strategies is presented in Distribution and Applied Management of Invasive Plant Species at Proposed Rehabilitation Sites along the Mainstem of the Trinity River (North State Resources 2007). This report is available at: http://odp.trrp.net/Data/Documents/Details.aspx?document=1146. The TRRP will continue to work to limit the spread of noxious weeds in the area and to ensure that the seeds of these species are not allowed to reach the river and disperse down-river. Priority will be primarily on those species with noxious status, relatively low abundance in Trinity County, abundant seed production, and adaptability to thrive and spread.

Wildlife Resources

The wildlife species typically associated with the primary plant communities present in the project area (Table 12) are summarized in the Master EIR (Section 4.7). The Trinity River corridor provides habitat and travel corridors for such species as Pacific fisher (*Martes pennanti pacifica*), American marten (*M. americana*), black-tailed deer (*Odocoileus hemionus columbianus*), river otter (*Lontra canadensis*), beaver (*Castor canadensis*), common merganser (*Mergus merganser*), green heron (*Butorides virescens*), black-crowned night heron (*Nycticorax nycticorax*), wood duck (*Aix sponsa*), belted kingfisher (*Megaceryle alcyon*), cliff swallow (*Hirundo pyrrhonota*), bank swallow (*Riparia riparia*), and raccoon (*Procyon lotor)*. The riparian vegetation along the Trinity River, in association with adjacent and/or nearby mixed-conifer and montane hardwood-conifer habitat, provides

connected habitat within an area that has been fragmented by rural residential development and road building.

Special-Status Wildlife Species

In Trinity County, the vegetation communities described above provide habitat for a number of special-status wildlife species. For the purposes of this evaluation, special-status species are (1) designated as rare by the CDFW or the USFWS or are listed as threatened or endangered under the CESA or the federal ESA; (2) proposed for designation as rare or listing as threatened or endangered; (3) identified as state or federal candidate species for listing as threatened or endangered; or (4) designated as sensitive by the BLM.

A list of special-status wildlife species considered for analysis was compiled by performing a CNDDB database search, conducting informal consultations with the BLM and USFWS, and reviewing biological literature for the region. The special-status wildlife species considered are described in Table 13 (more detailed species accounts are provided in Section 4.7 and Table 4.7-1 and Appendix C of the Master EIR). Federal and state designations, general habitat requirements, and information on each species' potential occurrence at the site (based on distributional range and available habitat) are also provided in the table. Conclusions presented are based on the knowledge of local professional biologists and historic survey information.

In northern California, northern spotted owl (*Strix occidentalis caurina*) resides in large stands of old growth, multi-layered, mixed conifer, redwood, and Douglas-fir habitats (Regional Water Board and Reclamation 2009). Nesting stands typically include a moderate to high canopy closure (60 to over 80 percent); a multilayered, multispecies canopy with large (greater than 30 inch dbh) overstory trees; a high incidence of large trees with various deformities (e.g., large cavities, broken tops, mistletoe infections, and other evidence of decadence); large snags; large accumulations of fallen trees and other woody debris on the ground; and sufficient open space below the canopy for northern spotted owls to fly (Thomas et al. 1990). Table 4.7-2 of the Master EIR noted that northern spotted owl habitat does not exist in the project area. Aerial imaging, data interpolation, and pedestrian surveys indicate that habitat within the project area does not possess features associated with suitable nesting, roosting, or foraging habitat for northern spotted owl. Based on informal consultation with the USFWS during production of the Master EIR, known distribution of spotted owl nests in the area (provided by the USFS), and Trinity River bird distribution data provided by the Redwood Sciences Laboratory, Reclamation and the BLM determined that a biological assessment was not required since the Proposed Project would have no effect on the northern spotted owl or its critical habitat.

Riparian habitat, which is considered a sensitive natural community by the CDFW, is present in the project area along the Trinity River. Critical Winter Range for raptors is also present in areas along the Trinity River. Migratory birds and raptors (birds of prey) may nest within, or in close proximity to, the project area. Migratory birds and their nests are protected under the federal Migratory Bird Treaty Act (MBTA; 50 CFR 10 and 21). Most of the birds found in the project area are protected under the MBTA. Raptors are also protected under the CDFW Code. The plant communities at and near the project area provide suitable breeding and foraging habitat for several raptors, such as the red-tailed hawk (*Buteo jamaicensis*) and great horned owl (*Bubo virginianus*).

The Trinity River corridor within the project area provides habitat and travel corridors for the West Coast Distinct Population Segment (DPS) of fisher (*Pekania pennanti*), a candidate for listing as a threatened species under the ESA. The USFWS published a proposed rule in October 2014 to list the west coast population of fisher as threatened under the Endangered Species Act (79 FR 60419). The USFWS is currently reviewing and responding to comments and new information submitted under the proposed rule. A final decision on the proposed rule is due in April 2016. Fishers use forest habitats with dense canopy closure, large diameter live trees (conifers and hardwoods) and snags (dead trees) with cavities and other deformities, large diameter down wood, multiple canopy layers. Mature and late-successional coniferous or mixed forests that contain key habitat and structural components provide the most suitable fisher habitat because they provide abundant potential den sites and preferred prey species. Habitat within the project area is marginal because of past disturbance and the proximity of residences. However, the project area could be used as a migratory corridor.

Jurisdictional Waters (Including Wetlands)

The USACE has regulatory authority over Navigable Waters of the United States pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Waters of the United States, including wetlands, pursuant to Section 404 of the CWA. Eight jurisdictional water types, including wetlands and other waters, occur at rehabilitation sites along the Trinity River. Jurisdictional water types present at the Proposed Project site are shown in Table 14. Each of these is briefly described below.

Within the Bucktail Rehabilitation Site boundaries there are a total of 32.9 acres of jurisdictional waters and 20.43 acres of total wetlands and 12.47 acres of other waters, comprised primarily of the Trinity River riverine feature. Of the wetlands, there are a total of 1.34 acres of riparian wetlands above OHWM and 13.37 acres of riparian wetlands below OHWM. The locations of these features are shown on Figure 8. USACE staff visited the project area on November 7, 2013. A preliminary jurisdiction determination (PJD) letter was received from USACE on February 12, 2014 for the previous design. Current waters and wetlands of the U.S. presented in Figure 8 were submitted to the USACE on December 13, 2015, and an updated PFD was approved in January 2016. A post-project delineation would be performed after five years to verify project impacts to waters of the United States.

Riverine (Perennial Stream)

Riverine habitat occurs within the project area and is characterized as the active Trinity River channel within the OHWM, as defined by the Hydraulic Engineering Center River Analysis System (HEC-RAS) model developed for Reclamation. Riverine habitat is dominated by run and riffle habitats, with boulder, cobble, gravel, and sand substrates. Vegetation within the active river channel is sparse, with occasional clumps of sedges. Riparian habitat that occurs within the OHWM is characterized as a wetland type; riparian habitat above the OHWM is considered an upland habitat (North Wind 2013). The Trinity River is the primary factor influencing wetland features associated with the site. Riverine habitat identified as the river itself, exhibits a distinct bed and bank feature (i.e., scouring), as well as continuous inundation, watermarks, drift lines, and sediment deposits.

Riparian Wetlands

Riparian wetland features line the Trinity River corridor. Riparian wetlands are typically dominated by a complex of woody riparian species and open to dense emergent herbaceous species. These sites include positive field indicators of wetland hydrology and hydric soils. Herbaceous plant species that almost always occur (> 99 percent probability) are designated as obligates (OBL) and herbaceous plant species that usually occur (> 67 percent probability) are designated as facultative wetland (FACW) species. Common vegetation observed in riparian wetland features include: white alder (FACW[3]), Oregon ash (FACW), black cottonwood (FACW), Himalayan blackberry (FACU), California blackberry (FACW), narrowleaf willow (FACW), arroyo willow (FACW), shining willow (NI), American dogwood (UPL), mugwort (FACW), California wild grape (FACW), torrent sedge (*Carex nudata* – OBL), tall flatsedge (*Cyperus eragrostis* – FACW), least spikerush (*Eleocharis acicularis* – OBL), smooth scouring rush (*Equisetum laevigatum* – FACW), and reed canary grass (*Phalaris arundinacea* – OBL). Dominant vegetation observed in riparian wetland features at the Bucktail site includes narrowleaf willow, torrent sedge, American wild mint (*Mentha arvensis* – FACW), tufted hair grass (*Deschampsia cespitosa* – FACW), lamp rush (*Juncus effusus* – FACW), and Himalayan blackberry.

[3] FAC = Facultative Plants Estimated probability of occurring in wetland 33 percent to 67 percent
FACU = Facultative Upland Plants Estimated probability of occurring in wetland 1 percent to <33 percent
FACW = Facultative Wetland Plants Estimated probability of occurring in wetland >67 percent to 99 percent
NI = No indicator Insufficient information exists to assign a wetland status indicator
OBL = Obligate Wetland Plants Estimated probability of occurring in wetland >99 percent
UPL = Obligate Upland Plants Estimated probability of occurring in wetland <1 percent

Table 13. Special Status Wildlife Species Considered for Analysis.

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat	Comments
MAMMALS			
Pacific fisher *Pekania pennanti*	*/S2S3	Dens and forages in intermediate to large stands of old-growth forests or mixed stands of old-growth and mature trees with greater than 50% canopy closure. May use riparian corridors for movement.	There is marginal habitat because the area is disturbed and because of the proximity of nearby residences. However, the project area could be used as a migratory corridor.
Ring-tailed cat *Bassariscus astutus*	—/FP	Occurs in riparian habitats and brush stands of most forest and shrub habitats. Nests in rock recesses, hollow trees, logs, snags, abandoned burrows, and woodrat nests.	The habitat in the project area is marginal because of existing disturbance. Because of the limited habitat within the project area, this species is not likely to use the area.
Marysville kangaroo rat *Dipodomys californicus eximius*	*/S1	Desert, chaparral	Absent. No suitable habitat occurs within project boundaries.
San Joaquin pocket mouse *Perognathus inornatus*	*/S2S3	Grassland	Absent. No suitable habitat occurs within project boundaries.
Fringed myotis *Myotis thysanodes*	*/S3	In mesic habitats, roosts in caves, mines, tunnels, and buildings. Roosts typically in valley foothill hardwood and hardwood-conifer habitats, but forages in open, early-successional-stage habitats near water. Generally at 4,000-7,000 feet.	Unlikely. Project area is below the elevational limits of this species.
Long-eared myotis *Myotis evotis*	*/S3	Found in most habitats, but prefers coniferous woodlands. Roosts in buildings, crevices, spaces under bark, and snags. Forages among trees and over brush, usually in close association with water.	May be present. Woodlands along the Trinity River corridor provide suitable roosting and foraging habitats.
Spotted bat *Euderma maculatum*	*/S3	Coniferous woodlands, canyons, and mountains. Roosts in buildings, crevices, spaces under bark, and snags. Forages among trees and over brush, usually in close association with water.	May be present. Woodlands along the Trinity River corridor provide suitable roosting and foraging habitats.

Table 13. Special Status Wildlife Species Considered for Analysis.

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat	Comments
Pallid bat *Antrozous pallidus*	*/S3	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves.	May be present. Suitable habitat may be present along the Trinity River corridor.
Western mastiff-bat *Eumops perotis californicus*	*/S3S4	Forages over many habitats; roosts in rocky outcrops and rocky crevices in mines and caves in canyon habitat.	May be present. Suitable habitat may be present along the Trinity River corridor.
Townsend's western big-eared bat *Corynorhinus townsendii*	*/S2	Roosts in colonies in caves, mines, bridges, buildings, and hollow trees in a range of habitats. Forages along habitat edges. Habitat must include appropriate roosting, maternity, and hibernacula sites free from disturbance by humans.	May be present. Suitable habitat is present along the Trinity River corridor.
Yuma myotis *Myotis yumanensis*	*/S4	Forages over water such as ponds, streams, and stock tanks in open woodlands. Roosts in buildings, caves, mines, abandoned swallow nests, bridges, and rock crevices.	May be present. Suitable habitat is present along the Trinity River corridor.
BIRDS			
Northern spotted owl *Strix occidentalis caurina*	T/—	In northern California, resides in large stands of old growth, multi-layered, mixed conifer, redwood, and Douglas-fir habitats	Absent. Habitat within the project area does not possess features associated with suitable nesting, roosting, or foraging habitat for northern spotted owl.
Bald eagle *Haliaeetus leucocephalus*	D*/S2	Uncommon to common in riverine and open wetland habitats. Requires large bodies of water or free-flowing rivers with abundant fish for foraging. Nests in large, live trees, usually near water and free from human disturbance.	May be present. Suitable nesting habitat may be present at the site due to the presence of dense, large trees. The moderate level of human disturbance may deter the species, but they may forage on the site.
California spotted owl *Strix occidentalis occidentalis*	*/S3	In northern California, resides in large stands of old growth, multi-layered, mixed conifer, redwood, and Douglas-fir habitats	Absent. No suitable habitat occurs within project boundaries.

Table 13. Special Status Wildlife Species Considered for Analysis.

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat	Comments
Bank swallow *Riparia riparia*	*/S2S3	Colonial nester on vertical banks or cliffs with fine-textured soils near water.	Absent. Suitable habitat is not present along the portion of the Trinity River being analyzed.
Northern goshawk *Accipiter gentilis*	—/S3	Breeds in dense, mature conifer and deciduous forests, interspersed with meadows, other openings and riparian areas; nesting habitat includes north-facing slopes near water.	May be present. Woodlands along the Trinity River corridor provide suitable nesting and foraging habitats.
Burrowing owl *Athene cunicularia*	*/S3	Occurs in grassland, farmland and urban habitats, documented as occurring in California Desert District species account.	Absent. Suitable habitat is not present along the portion of the Trinity River being analyzed.
California black rail *Laterallus jamaicensis coturniculus*	*/S1	Inhabits tidal marshes and freshwater marshes in the western United States and Mexico	Absent. Suitable habitat is not present along the portion of the Trinity River being analyzed.
Greater sandhill crane *Grus canadensis tabida*	*/S2	The population that occurs in California is known as the Central Valley Population. They occur primarily in the Shasta Valley and California's Central Valley.	Absent. Suitable habitat is not present along the portion of the Trinity River being analyzed.
Swainson's hawk *Buteo swainsoni*	*/S3	Occurs in grassland and farmland habitats. Nesting habitat include cottonwood, oak and willow habitats	May be present. Suitable nesting habitat is present along the Trinity River.
Tricolored blackbird *Agelaius tricolor*	*/S1S2	Marshes, grassland, farmland; limited to cismontane California, and the Central Valley area.	Absent. Site is not within the currently known range of the species.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	C/S1	Occurs in cottonwood/willow riparian forest.	May be present. Suitable habitat is present along the Trinity River in the project area.
White-tailed kite *Elanus leucurus*	*/S3S4	Open groves, river valleys, marshes, grasslands	May be present. Suitable habitat is present along the Trinity River in the project area.

Table 13. Special Status Wildlife Species Considered for Analysis.

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat	Comments
AMPHIBIANS			
California red-legged frog *Rana aurora draytonii*	T/S2S3	Requires aquatic habitat for breeding; also uses a variety of other habitat types, including riparian and upland areas.	Absent. Site is not within the current or historic range of this species.
Foothill yellow-legged frog *Rana boylei*	*/S2S3	Cool, fast-moving, rocky streams in a variety of habitats.	May be present. The species is known to occur in the Trinity River from the Lewiston Dam to the North Fork Trinity.
Shasta salamander *Hydromantes shastae*	*/S1S2	This species is restricted to a small area in northern California, in the headwaters of Shasta Reservoir drainage, Shasta County, California	Absent. Not known to occur in Trinity County.
Western spadefoot toad *Scaphiopus hammondi*	*/S3	Wetland, Rivers, Foothills, Mountains	Absent. Not known to occur in Trinity County.
INVERTEBRATES			
Trinity bristle snail *Monadenia setosa*	*/S2	Riparian corridors and canyon slopes with dense deciduous understory in Trinity County.	Absent. Species not detected during surveys of potential Trinity River restoration sites.
Big Bar hesperian snail *Vespericola pressleyi*	*/S1	Old growth, riparian, conifer forests, and hardwood forest, seeps, spring and stable stream habitats in Trinity County	Absent. Species not detected during surveys of potential Trinity River restoration sites.
Hooded lancetooth *Ancotrema voyanum*	*/S1S2	Near streams or intermittent stream channels where substrate is permanently damp	Absent. Species not detected during surveys of potential Trinity River restoration sites.
Klamath shoulderband snail *Helminthoglypta talmadgei*	*/S1S3	Talus and other rocky substrates, rock fissures or large woody debris.	Absent. Species not detected during surveys of potential Trinity River restoration sites.
Siskiyou shoulderband snail *Monadenia chaceana*	*/S2	Moist microhabitats in late-successional forest and talus slopes or rocky areas.	Absent. Species not detected during surveys of potential Trinity River restoration sites.

Table 13. Special Status Wildlife Species Considered for Analysis.

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat	Comments
Tehama chaparral snail *Trilobopsis tehamana*	*/S1	Rocky tallus under leaf litter and woody debris by limestone outcrops.	Absent. Species not detected during surveys of potential Trinity River restoration sites.

[1]Status Codes: Federal Codes: E = Endangered; T = Threatened; D = Delisted; C = Candidate; * = BLM Sensitive

State Codes: S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state. S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state. S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors. FP = California Fully Protected species.

Table 14. Summary Acreages of USACE Jurisdictional Waters and Wetlands within the Project Area.

Feature Type	Total Acres (Impacted Acres)	
Perennial Stream / Riverine Trinity River	**Total acres**	12.47
	(Impacted acres)	(1.20)
Total Other Waters	**Total acres**	12.47
	Impacted acres	(1.20)
Riparian Wetland		
Above OHWM	Total acres	1.34
	(Impacted acres)	(0.27)
Below OHWM	Total acres	13.37
	(Impacted acres)	(2.78)
Wet Meadow		
Above OHWM	Total acres	0.00
	(Impacted acres)	(0)
Below OHWM	Total acres	0.03
	(Impacted acres)	(0)
Seasonal Wetland		
Above OHWM	Total acres	0.01
	(Impacted acres)	(0.01)
Below OHWM	Total acres	0.95
	(Impacted acres)	(0.95)
Ponded Wetland		
Above OHWM	Total acres	1.01
	(Impacted acres)	(0)
Below OHWM	Total acres	0.42
	(Impacted acres)	(0.40)
Scrub Shrub		
Above OHWM	Total acres	1.23
	(Impacted acres)	(0.17)
Below OHWM	Total acres	2.07
	(Impacted acres)	(0.41)
Total Wetlands	**Total acres**	**20.43**
	(Impacted acres)	**(4.99)**
Total Jurisdictional Waters	**Total acres**	**32.9**
	(Impacted acres)	**(6.19)**

Emergent Wetland

Emergent wetlands occur adjacent to the riverine system, in backwaters and depressions along the river, and in tailing pits that are saturated for long periods. This wetland type was present in the project area. Emergent wetlands are characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. Vegetation, typically perennial, is present for most of the growing

season in most years. In the project region, typical dominant plant species include narrow-leaf cattail (OBL), Himalayan blackberry, perennial ryegrass (FAC), and narrowleaf willow. The emergent wetland sites at the Bucktail site are in the high flow channel that flows through a concrete box culvert under Browns Mountain Road into the Trinity River; west of the Trinity River, and north of Browns Mountain Road. The dominant vegetation is tufted hair grass and lamp rush.

Seasonal Wetland

In general, seasonal wetlands often occur in level or low-lying areas that exhibit positive field indicators of long-duration saturation during the growing season. An area identified as a seasonal wetland was identified within the Bucktail site.

Scrub Shrub

Scrub-shrub wetland features are present in the project area. Scrub-shrub wetlands in the ESL are dominated by narrowleaf willow and Himalayan blackberry growing in a cobble substrate.

Wet Meadow

Seasonal wet meadows occur in areas where water does not appear to pond but nevertheless the soil saturates to the surface for sufficient duration to create a wetland habitat. Riparian wet meadow features were found at the Bucktail site in depressions that are not directly adjacent to the river. Seasonal wet meadows are typically composed of herbaceous plant species that tolerate long-duration saturation. At the Bucktail site, riparian wet meadow features are located in a depressional area situated between Browns Mountain Road and the high flow dike west of the Trinity River. This feature is dominated by hydrophytic vegetation that is influenced by the perennial stream. The feature falls mostly within the OHWM. Dominant vegetation observed in riparian wet meadow features at the Bucktail site include tufted hair grass, lamp rush, and Himalayan blackberry.

Ponded Wetland

A ponded wetland feature is located in the project area. This feature is dominated by broad-leaf cat-tail (*Typha latifolia* - OBL) and bulrush (*Schoenoplectus* sp. - OBL) growing in a depression in a tailing pile. Several species of ducks, frogs, and birds were using the pond during the site visit (North Wind 2013).

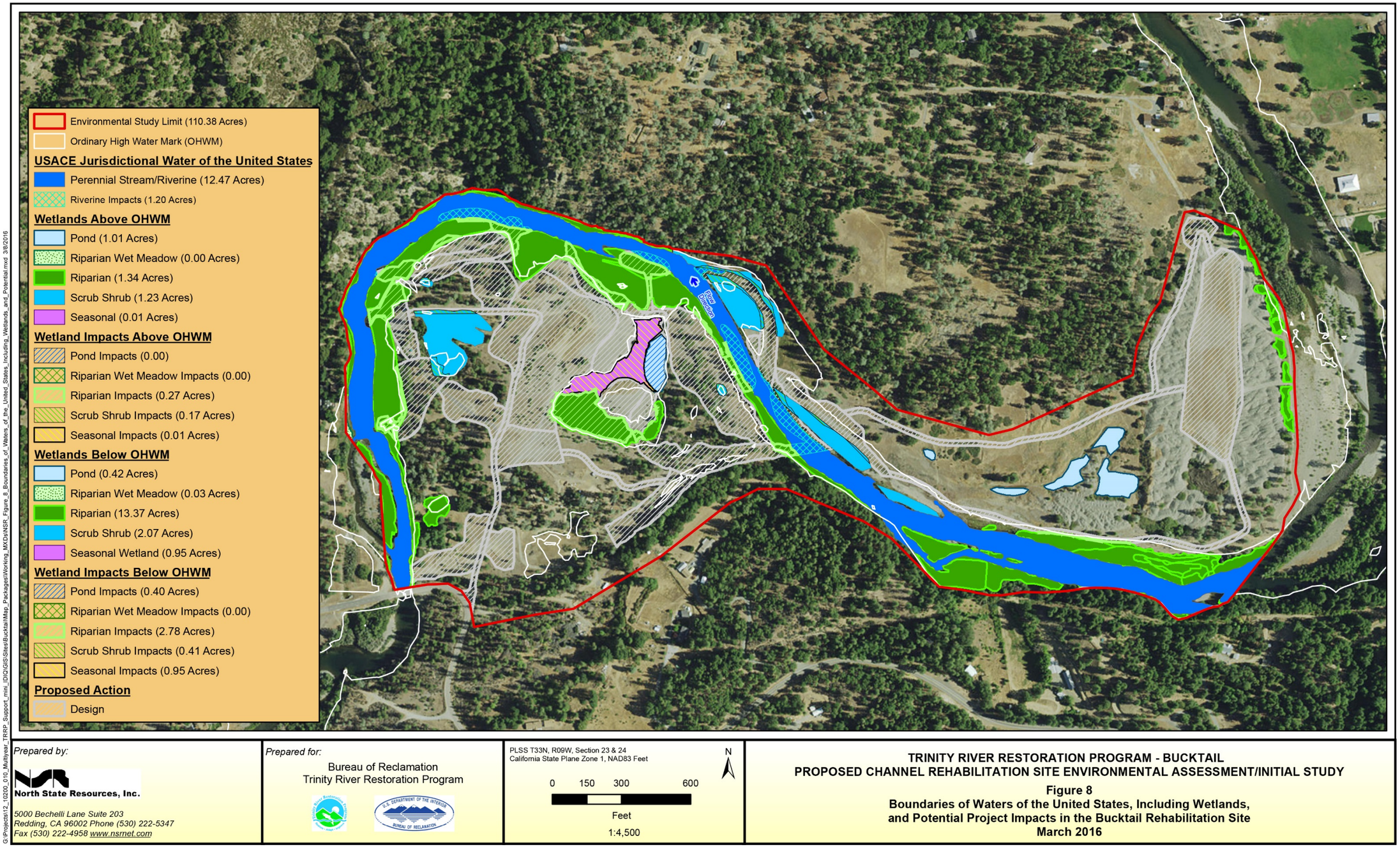

Figure 8. Boundaries of Waters of the United States, Including Wetlands, and Potential Project Impacts in the Bucktail Rehabilitation Site.

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3.7.2 Environmental Consequences/Impacts and Mitigation Measures

Methodology

Methods used to assess potential impacts of the Proposed Project on vegetation and wildlife resources included a review of pertinent literature and data and field surveys. Evaluation of the presence of special status species and sensitive habitats within the boundaries of the site was conducted by performing a database search of the CNDDB and informally consulting with resource agencies (e.g., CDFW, NMFS, and USFWS) regarding biological resource issues associated with the implementation of rehabilitation projects along the Trinity River. These efforts provided an overview of the quality and character of potential habitat present within the project reach.

CEQA Significance Criteria

Significance criteria used to analyze the potential impacts of the Proposed Project on vegetation, wildlife, and wetland resources include factual and scientific information and the regulatory standards of county, state, and federal agencies, including the CEQA guidelines. These criteria have been developed to establish thresholds to determine the significance of impacts pursuant to CEQA (Section 15064.7) and should not be confused with a "take" or adverse effect under the ESA. The Aquatic Conservation Strategy – Consistency Evaluation is provided as Appendix C of this EA/IS.

Impacts on vegetation would be significant under CEQA if implementation of the Proposed Project would result in any of the following:

- Potential to substantially reduce the number or restrict the range of an endangered or threatened plant species or a plant species that is a candidate for state listing or proposed for federal listing as endangered or threatened;
- Potential for substantial reductions in the habitat of any native plant species including those that are listed as endangered or threatened or are candidates or proposed for endangered or threatened status;
- Potential for causing a native plant population to drop below self-sustaining levels;
- Potential to eliminate a native plant community;
- Substantial adverse effect, either directly or through habitat modifications, on any plant identified as a sensitive or special status species in local or regional plans, policies, or regulations;
- Substantial adverse effect on the quantity or quality of riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations;
- A conflict with any local policies or ordinances regarding protection or control of vegetation resources;

- A conflict with, or violation of, the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, state, or federal habitat conservation plan relating to the protection of plant resources; or

- An increased potential for spread of non-native and invasive plant species.

Impacts on wildlife would be significant under CEQA if implementation of the Proposed Project would result in any of the following:

- Mortality of state or federally listed wildlife species, or species that are candidates for listing or proposed for listing;

- Potential for reductions in the number, or restrictions of the range, of an endangered or threatened wildlife species or a wildlife species that is a candidate for state listing or proposed for federal listing as endangered or threatened;

- Potential for substantial reductions in the habitat of any wildlife species, including those that are listed as endangered or threatened or are candidates or proposed for endangered or threatened status;

- Potential for causing a wildlife population to drop below self-sustaining levels;

- Substantially block or disrupt major terrestrial wildlife migration, or travel corridors;

- Substantial adverse effect, either directly or through habitat modifications, on any wildlife species identified as a sensitive or special status species in local or regional plans, policies, or regulations;

- Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations;

- A conflict with any state or local policies or ordinances protecting wildlife resources; or

- A conflict with, or violation of, the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, state, or federal habitat conservation plan relating to the protection of wildlife species.

Impacts on wetlands would be significant under CEQA if they would result in any of the following:

- Substantial adverse effect on any riparian habitat;

- Substantial adverse effect on federally protected wetlands as defined by section 404 of the CWA through direct removal, filling, hydrological interruption, or other means;

- A conflict with any state or local policies or ordinances protecting wetland and/or riparian resources; or

- A conflict with, or violation of, the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, state, or federal habitat conservation plan relating to the protection of wetland resources.

Impacts and Mitigation Measures/Project Design Features

Table 15 summarizes the potential vegetation, wildlife, and wetlands impacts that would result from the No Project alternative and the Proposed Project.

Table 15. Summary of Potential Vegetation, Wildlife, and Wetland Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.7-1. Construction activities associated with the project could result in the loss of jurisdictional waters including wetlands.		
No impact	Significant	Less than significant
Impact 3.7-2. Implementation of the project would result in the loss of upland plant communities.		
No impact	Less than significant	Not applicable[1]
Impact 3.7-3. Construction of the project could result in the loss of individuals of a special status plant species.		
No impact	Less than significant	Not applicable[1]
Impact 3.7-4. Construction activities associated with the project could result in impacts to the state-listed little willow flycatcher.		
No impact	Significant	Less than significant
Impact 3.7-5. Construction activities associated with the project could result in impacts to foothill yellow-legged frog.		
No impact	Significant	Less than significant
Impact 3.7-6. Construction activities associated with the project could result in impacts to western pond turtle.		
No impact	Significant	Less than significant
Impact 3.7-7. Construction activities associated with the project could result in impacts to nesting Vaux's swift, California yellow warbler, and yellow-breasted chat.		
No impact	Significant	Less than significant
Impact 3.7-8. Construction activities associated with the project could result in impacts to nesting bald eagle and northern goshawk.		
No impact	Significant	Less than significant
Impact 3.7-9. Construction activities associated with the project could result in impacts to special status bats and the ring-tailed cat.		
No impact	Significant	Less than significant

Table 15. Summary of Potential Vegetation, Wildlife, and Wetland Impacts for the No Project and Proposed Project Alternatives.

No Project Alternative	Proposed Project	Proposed Project With Mitigation
Impact 3.7-10. Construction activities associated with the project could result in the temporary loss of non-breeding habitat for several special status birds.		
No impact	Less than significant	Not applicable[1]
Impact 3.7-11. Construction activities associated with the project could result in impacts to BLM and USFS sensitive species.		
No impact	Less than significant	Not applicable[1]
Impact 3.7-12. Construction activities associated with the project could restrict terrestrial wildlife movement through the project area.		
No impact	Less than significant	Not applicable[1]
Impact 3.7-13. Implementation of the project could result in the spread of non-native and invasive plant species.		
No impact	Significant	Less than significant

[1] Because this potential impact is less than significant, no mitigation is required.

Impact 3.7-1: Construction activities associated with the Proposed Project could result in the loss of jurisdictional waters including wetlands.

No Project Alternative

Under the No Project alternative, no loss of jurisdictional wetlands would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Floodplain values and functions would be enhanced by the Proposed Project in conjunction with ROD flows released by the TRD. Consequently, substantial non-riparian areas beyond those identified in pre-project plant community delineations are expected to convert to riparian habitats (in some cases, jurisdictional wetlands), both seasonal and perennial, within a three to five year post-project window. The TRRP would take advantage of opportunities during or after a project's construction to enhance wetland functions within a site or to create conditions required for functional jurisdictional wetlands (i.e., hydrology, vegetation, and hydric soils) to persist over time. For example, excavation of areas upslope (above the OHWM) to a depth coincident with medium- or low-flow (2,000–450 cfs) conditions may provide opportunities to establish the hydrologic conditions necessary for establishing functional jurisdictional wetlands.

Construction activities associated with the Proposed Project would result in temporary impacts to jurisdictional waters, including wetland features in the project area. These impacts would be considered significant. Figure 8 shows the acres of jurisdictional waters that would be affected by the

Proposed Project. Construction of the Proposed Project would result in a direct temporary impact to 2.75 acres of riparian wetlands and 1.20 acres of riverine habitat. Impacts to wetlands are displayed in Table 14.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in the loss of jurisdictional waters including wetlands. Therefore, mitigation measures 4.7-1a, 4.7-1b, and 4.7-1c described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-2: Implementation of the Proposed Project would result in the loss of upland plant communities.

No Project Alternative

Under the No Project alternative, no construction-related effects to upland plant communities would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

The Proposed Project would result in the temporary disturbance of upland plant communities (see Figure 7). While project activities would modify the contour and slope of upland areas, these areas would be subject to natural recruitment of native plants, supplemented by planting programs consistent with the TRRP vegetation management objectives including minimizing invasive species impacts and the enhancement of wildlife habitat. Over time, these upland areas would be revegetated to the degree that site conditions allow.

The TRRP is anticipating intermittently watering the planted areas (especially upland areas) during dry conditions to help assist plants in establishing their roots and restoring the land to its natural condition. A combination of replanting and natural revegetation would occur to ensure that upland habitat values on the Trinity River meet wildlife needs. The need for revegetation would be determined via monitoring, coordination with local resource agencies, and adaptively managing to meet changing needs and desired future conditions. Temporary access routes and staging areas would be restored to their original condition upon completion of work.

Impact 3.7-3: Construction of the Proposed Project could result in the loss of individuals of a special status plant species.

No Project Alternative

Under the No Project alternative, no construction-related impacts to a special status plant species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

The Proposed Project site was surveyed for special status plant species in 2013, 2014, and 2015 following protocols outlined in the Master EIR. No special status plants were detected within the project area during these pre-construction botanical surveys (TCRCD and North Wind 2014, 2015). Therefore, no impacts to special status plant species would occur as a result of the Proposed Project.

Impact 3.7-4: Construction activities associated with the Proposed Project could result in impacts to the state-listed little willow flycatcher (Empidonax traillii).

No Project Alternative

Under the No Project alternative, no construction-related impacts to the little willow flycatcher would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Suitable montane riparian habitat for the little willow flycatcher may be present in the project area; the species has previously been detected in the region (Wilson 1995; Miller et al. 2003; Herrera 2006). Consequently, little willow flycatcher may nest in the project area. Project activities (e.g., grading, vegetation removal) in montane riparian habitat may result in a temporary reduction of foraging habitat for this species. However, the environmental commitments and project design features listed in Chapter 2, coupled with implementation of mitigation measures 4.6-1a, 4.6-1b, and 4.6-1c described in Appendix B would ensure that there is no net loss of riparian habitat and a long-term increase in riparian habitat diversity. Due to the temporary nature of the impacts and the regional abundance of similar habitats, the Proposed Project is not expected to have a significant impact on habitat for little willow flycatcher. However, the removal of riparian vegetation and the noise associated with construction activities could disturb individuals nesting on or adjacent to the project area. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or nesting little willow flycatchers or any activities resulting in nest abandonment would be considered a significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to the state-listed little willow flycatcher. Therefore, mitigation measures 4.7-4a, 4.7-4b, 4.7-4c, and 4.7-4d described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-5: Construction activities associated with the Proposed Project could result in impacts to the foothill yellow-legged frog (Rana boylii).

No Project Alternative

Under the No Project alternative, no construction-related impacts to foothill yellow-legged frog would occur. Therefore, there would be no impact.

Proposed Project

The foothill yellow-legged frog is known to occur in the Trinity River from the Lewiston Dam to the North Fork Trinity River (CDFW 2003b). Construction activities associated with the Proposed Project may affect foothill yellow-legged frog directly and indirectly. Potential direct effects include mortality of individuals due to equipment and vehicle traffic, disturbance of boulders or cobbles that support egg masses, and the loss of riparian vegetation cover. The species may also be indirectly affected if construction activities result in degradation of aquatic habitat and water quality due to erosion and sedimentation, accidental fuel leaks, and spills. These impacts would be significant. Over the long term, the Proposed Project would benefit the species through the creation of additional and higher quality habitat, such as feathered edges and backwaters that would provide habitat for early life-stages. Habitat for yellow-legged frog would be increased by the proposed creation of a wetland feature as well as other habitat improvements throughout the site.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to foothill yellow-legged frog. Therefore, mitigation measures 4.7-5a, 4.7-5b, 4.7-5c, and 4.7-5d described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-6: Construction activities associated with the Proposed Project could result in impacts to the western pond turtle (Actinemys marmorata).

No Project Alternative

Under the No Project alternative, no construction-related impacts to the western pond turtle would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Riverine and riparian habitats along the Trinity River provide suitable habitat for western pond turtle. Construction activities associated with the Proposed Project could affect pond turtles directly and indirectly. Potential direct effects include mortality of individuals due to equipment and vehicle traffic, disturbance to nests in upland areas, and the loss of riparian cover. The species may also be indirectly affected if construction activities result in degradation of aquatic habitat and water quality due to erosion and sedimentation, accidental fuel leaks, and spills. These impacts would be significant. However, over the long term, the Proposed Project would benefit the species through the

creation of additional and higher quality habitat. For example, removal of riparian berms would improve access to potential upland nesting and overwintering sites, and the creation of a side channels and large wood addition would provide slow-water basking and foraging habitat. Habitat for western pond turtle would be increased by the proposed creation of a wetland feature as well as other habitat improvements throughout the site.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to western pond turtle. Therefore, mitigation measures 4.7-6a, 4.7-6b, 4.7-6c, 4.7-6d, and 4.7-6e described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-7: Construction activities associated with the Proposed Project could result in impacts to nesting Vaux's swift (Chaetura vauxi), California yellow warbler (Dendroica petechia), and yellow-breasted chat (Icteria virens).

No Project Alternative

Under the No Project alternative, no construction-related impacts to nesting California yellow warbler, yellow-breasted chat, and Vaux's swift would occur. Therefore, there would be no impact.

Proposed Project

The riparian community commonly found along the Trinity River provides suitable nesting and foraging habitat for the California yellow warbler and yellow-breasted chat. The conifer habitat in the region also provides habitat for Vaux's swift. Consequently, project activities may result in impacts to these California Species of Special Concern. The Proposed Project may result in a temporary reduction of foraging and/or roosting habitat for these species. However, the environmental commitments and project design features listed in Chapter 2, coupled with implementation of mitigation measures 4.7-1a, 4.7-1b, and 4.7-1c described in Appendix B would ensure that there is no net loss of riparian habitat. Furthermore, project implementation would result in a long-term increase in riparian habitat diversity, increasing the quality of the habitat for California yellow warbler and yellow-breasted chat. Due to the temporary nature of the impacts and the regional abundance of similar habitats, the Proposed Project is not expected to have a significant impact on habitat for California yellow warbler, yellow-breasted chat, or Vaux's swift. However, the removal of vegetation and the noise associated with construction activities could disturb individuals nesting in or adjacent to the project area. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or nesting individuals or any activities resulting in nest abandonment would be a significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to nesting Vaux's swift, California yellow warbler, and yellow-breasted chat. Therefore, mitigation measures 4.7-7a,

4.7-7b, 4.7-7c, and 4.7-7d described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-8: Construction activities associated with the Proposed Project could result in impacts to nesting bald eagle (Haliaeetus leucocephalus) and northern goshawk (Accipiter gentilis).

No Project Alternative

Under the No Project alternative, no construction-related impacts to active raptor nests would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

The hardwood and conifer communities commonly found along the Trinity River in the project region provide suitable nesting and foraging habitat for the bald eagle, designated by the State of California as endangered, and the northern goshawk, designated as a California Species of Special Concern. The Proposed Project may result in a temporary reduction of foraging and/or roosting habitat for these species. Overall, as a result of the temporary nature of the impacts and the regional abundance of similar habitats, the Proposed Project is not expected to have a significant impact on habitat for bald eagle or northern goshawk. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or nesting bald eagles or goshawks, or any activities resulting in nest abandonment, would be a significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to nesting bald eagle and northern goshawk. Therefore, mitigation measures 4.7-8a, 4.7-8b, 4.7-8c, and 4.7-8d described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Due to the removal of the bald eagle from the endangered species list, and the availability of the National Bald Eagle Management Guidelines provided by the USFWS to protect the bald eagle, these mitigation measures are now stricter than those outlined in the 2009 Master EIR, and provide additional protections for the bald eagle to abide by directives within the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Implementation of the Proposed Project, including the specified mitigation measures would reduce the impacts to less than significant.

Impact 3.7-9: Construction activities associated with the Proposed Project could result in impacts to special status bats and the ring-tailed cat (Bassariscus astutus).

No Project Alternative

Under the No Project alternative, no construction-related impacts to breeding special status bats or the ring-tailed cat would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

The Trinity River riparian corridor provides suitable roosting and/or foraging habitat for four bat species: long-eared myotis *(Myotis evotis)*, pallid bat *(Antrozous pallidus)*, Yuma myotis *(Myotis yumanensis)*, and Townsend's western big-eared bat *(Corynorhinus townsendii townsendii)*. Two of these bat species (long-eared myotis bat and pallid bat) may roost in trees (e.g., spaces under tree bark or in cavities) as well as caves and buildings, while the other two species (Townsend's western big-eared bat and Yuma myotis) prefer to nest in structures such as buildings, bridges, caves, and mines. For the long-eared myotis and pallid bat (that roost in trees), habitat preference is typically woodland and forest habitat. It is unlikely that these bats would roost in the willows and alders typically found immediately along the Trinity River. However, they may roost in habitats more likely to contain large trees with cavities or loose bark, such as montane hardwood. Noise and visual disturbances associated with construction activities may disrupt bats roosting within and directly adjacent to the project area.

Each of these bat species has the potential to forage in the rehabilitation site. Foraging habitat typically consists of forested areas in close association with water. Construction activities associated with the Proposed Project could temporarily alter the foraging patterns of these species. However, this would be considered a less than significant impact based on the abundance of suitable foraging habitat in the region. No long-term adverse impacts to foraging habitat associated with Proposed Project implementation are anticipated.

The Trinity River riparian corridor also provides habitat for the ring-tailed cat. The willows and alders found immediately along the river are unlikely to provide suitable den habitat for this species due to the small size of the trees and lack of large cavities or snags. However, other habitats in the project area, such as Douglas-fir and ponderosa pine habitats may provide suitable den sites. Construction activities could result in a short-term reduction in foraging habitat for this species. Due to the abundance of similar habitat in the area, the temporary loss of foraging habitat would be a less than significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to special status bats and the ring-tailed cat. Therefore, mitigation measures 4.7-9a, 4.7-9b, and 4.7-9c described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of these mitigation measures would reduce the impacts to less than significant.

Impact 3.7-10: Construction activities associated with the Proposed Project could result in the temporary loss of non-breeding habitat for special status birds.

No Project Alternative

Under the No Project alternative, no construction-related impacts to non-breeding habitat for special status bird species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

The Trinity River riparian corridor provides both foraging and perching habitat for golden eagle, American peregrine falcon, and black swift, and suitable nesting habitat may be present in some locations. Construction activities associated with the Proposed Project could temporarily alter the foraging patterns of these species. However, this impact would be considered less than significant based on the abundance of suitable foraging habitat in the vicinity of the Proposed Project site. No long-term adverse impacts to foraging habitat associated with project implementation are anticipated. The loss of potential perch or nesting trees would not affect the abundance of these species or their use of the Trinity River for foraging.

Impact 3.7-11: Construction activities associated with the Proposed Project could result in impacts to BLM and USFS sensitive species.

No Project Alternative

Under the No Project alternative, no construction-related impacts to BLM or USFS sensitive species would occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Several of the special status wildlife species with potential to occur in the project area are designated BLM or USFS sensitive species: foothill yellow-legged frog, western pond turtle, northern goshawk, little willow flycatcher, Pacific fisher, long-eared myotis bat, pallid bat, Townsend's western big-eared bat, and Yuma myotis bat. With the exception of Pacific fisher, potential impacts to these species are discussed as separate impacts above. Similar to the ring-tailed cat, the Trinity River riparian corridor and adjoining upland habitat provides habitat for the Pacific fisher. The willows and alders found immediately along the river are unlikely to provide suitable den habitat for this species due to the small size of the trees and lack of large cavities or snags. However, the project area could be used a migratory corridor. Habitat is marginal because the area is disturbed and because of the proximity of residences. Construction activities would result in a short-term reduction in foraging habitat for this species. Due to the abundance of similar habitat in the area, the temporary loss of foraging habitat would be a less than significant impact.

Mitigation Measures/Project Design Features

Construction activities associated with the Proposed Project could result in impacts to BLM and USFS sensitive species. Therefore, the environmental commitments and project design features listed in Chapter 2, in conjunction with the following mitigation measures described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Mitigation measures 4.7-4a, 4.7-4b, and 4.7-4c would reduce impacts to the little willow flycatcher to a less than significant level. Mitigation measures 4.7-5a, 4.7-5b, 4.7-5c, and 4.7-5d would reduce the impacts to the foothill yellow-legged frog to a less than significant level. Mitigation measures 4.7-6a, 4.7-6b, 4.7-6c, and 4.7-6d would reduce the impacts to the western pond turtle to a less than significant level. Mitigation measures 4.7-8a, 4.7-8b, and 4.7-8c would reduce the impacts to the northern goshawk to a less than significant level, and mitigation measures 4.7-9a and 4.7-9b would reduce the impacts to special status bat species to a less than significant level. These mitigation measures are referenced

here from previous impact sections rather than reiterating them numerous times in an effort to reduce the size of document. Since no significant impacts to the Pacific fisher were identified, no mitigation is required.

Impact 3.7-12: Construction activities associated with the Proposed Project could restrict terrestrial wildlife movement through the project area.

No Project Alternative

Under the No Project alternative, construction-related restriction of terrestrial wildlife movement through the project area would not occur because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Construction noise and activity would not impede the seasonal migration of the Weaverville deer herd from high-elevation summer habitats to lower elevation critical winter ranges. Construction noise could temporarily alter foraging patterns of resident wildlife species, and vegetation removal along the river could temporarily disrupt wildlife movement through the area. However, no long-term impediments to wildlife movement within the project area are anticipated as a result of implementing the Proposed Project. Therefore, this would be a less than significant impact.

Impact 3.7-13: Implementation of the Proposed Project could result in the spread of non-native and invasive plant species.

No Project Alternative

Under the No Project alternative, the spread of non-native and invasive plant species would not occur as a result of construction activities because the project would not be constructed. Therefore, there would be no impact.

Proposed Project

Project implementation could result in the spread of non-native and invasive plant species (e.g., dalmatian toadflax, Himalayan blackberry, yellow star-thistle, cheatgrass, and others) during ground-disturbing activities. This would be considered a significant impact. Implementation of the mitigation measures described below would address the potential for spread of invasive species. Intermittently watering planted areas (especially upland areas) during dry conditions would assist desirable plants in establishing their roots and help to restore the land to its natural condition and reduce the risk of spread of non-native and invasive plants.

Mitigation Measures/Project Design Features

Implementation of the Proposed Project could result in the spread of non-native and invasive plant species. Therefore, mitigation measures 4.7-13a, 4.7-13b, 4.7-13c, 4.7-13d, 4.7-13e, 4.7-13f, and 4.7-13g described in Appendix B will be implemented to reduce the potential for impacts associated with the Proposed Project. Implementation of these mitigation measures would reduce the impacts to less than significant.