Blairsden-Graeagle Road at Middle Fork of the Feather River Bridge (No. 9C-0134) Replacement Project, Plumas County, California

Natural Environment Study - Minimal Impacts

Plumas County, California

Blairsden, California USGS 7.5-minute Quadrangle

Northeast quarter of Section 15, Township 22N, Range 12E

Federal Aid Project No.: BRLO-5909 (029)

October 2013

Caltrans

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Blairsden-Graeagle Road at Middle Fork Feather River Bridge (No. 9C-0134) Replacement Project, Plumas County, California

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BRLO-5909 (029)

October 2013

STATE OF CALIFORNIA
Department of Transportation
County of Plumas

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Blairsden-Graeagle Road at Middle Fork Feather River Bridge (No. 9C-0134) Replacement Project, Plumas County, California

Natural Environment Study - Minimal Impacts

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Summary

Plumas County Public Works Department is proposing replacement of the existing Blairsden-Graeagle at Middle Fork Feather River Bridge (No. 9C-0134). The existing bridge will either be retained and rehabilitated to support pedestrian and bicycle use or demolished and removed.

Based on a review of special-status plant species with potential to occur in the Biological Study Area (BSA), a field assessment, and botanical surveys, the proposed project would not affect any special-status plant species.

Based on a review of special-status animal species with potential to occur in the BSA and the results of biological field assessment, the proposed project will have no effect on federally listed threatened or endangered species, but could affect one state listed species, the little willow flycatcher (*Empidonax traillii brewsteri*). The proposed project could affect the following seven special-status animal species: foothill yellow-legged frog (*Rana boylii*), olive-sided flycatcher (*Contopus cooperi*), yellow warbler (*Dendroica petechia*), yellow-breasted chat (*Icteria virens*), Townsend's big-eared bat (*Corynorhinus townsendii)*, pallid bat (*Antrozous pallidus)*, and western red bat (*Lasiurus blossevillii)*.

Approximately 1.221 acres of waters of the United States were delineated in the BSA. Feature types include perennial stream (Middle Fork Feather River), intermittent streams, riparian wetlands, and wet meadow. The proposed project would result in placement of fill in a total of 0.0138 acres of waters of the United States including permanent impacts to the perennial stream (0.0135 acre), intermittent stream (0.001 acre), and riparian wetlands (0.0047 acre).

This Natural Environment Study – Minimal Impacts report discusses the potential impacts on biological resources and applicable Avoidance and Minimization Measures to offset the potential impacts. Conservation Measures and Avoidance and Minimization Measures would ensure that proposed project impacts on sensitive resources and special-status animal species are minimal.

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List of Abbreviated Terms

°F	degrees Fahrenheit
ADT	Average daily traffic
BMP	best management practice
BSA	biological study area
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
County	Plumas County Public Works Department
CWA	Clean Water Act
ESA	Federal Endangered Species Act
MBTA	Migratory Bird Treaty Act
OHWM	Ordinary high water mark
ROW	Right-Of-Way
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Chapter 1. Introduction

This Natural Environment Study – Minimal Impacts report has been prepared by North State Resources, Inc. (NSR), on behalf of Plumas County Public Works Department (County), to evaluate the potential effects of implementation of the Blairsden-Graeagle at Middle Fork Feather River Bridge (No. 9C-0134) Replacement Project (proposed project) on sensitive biological resources.

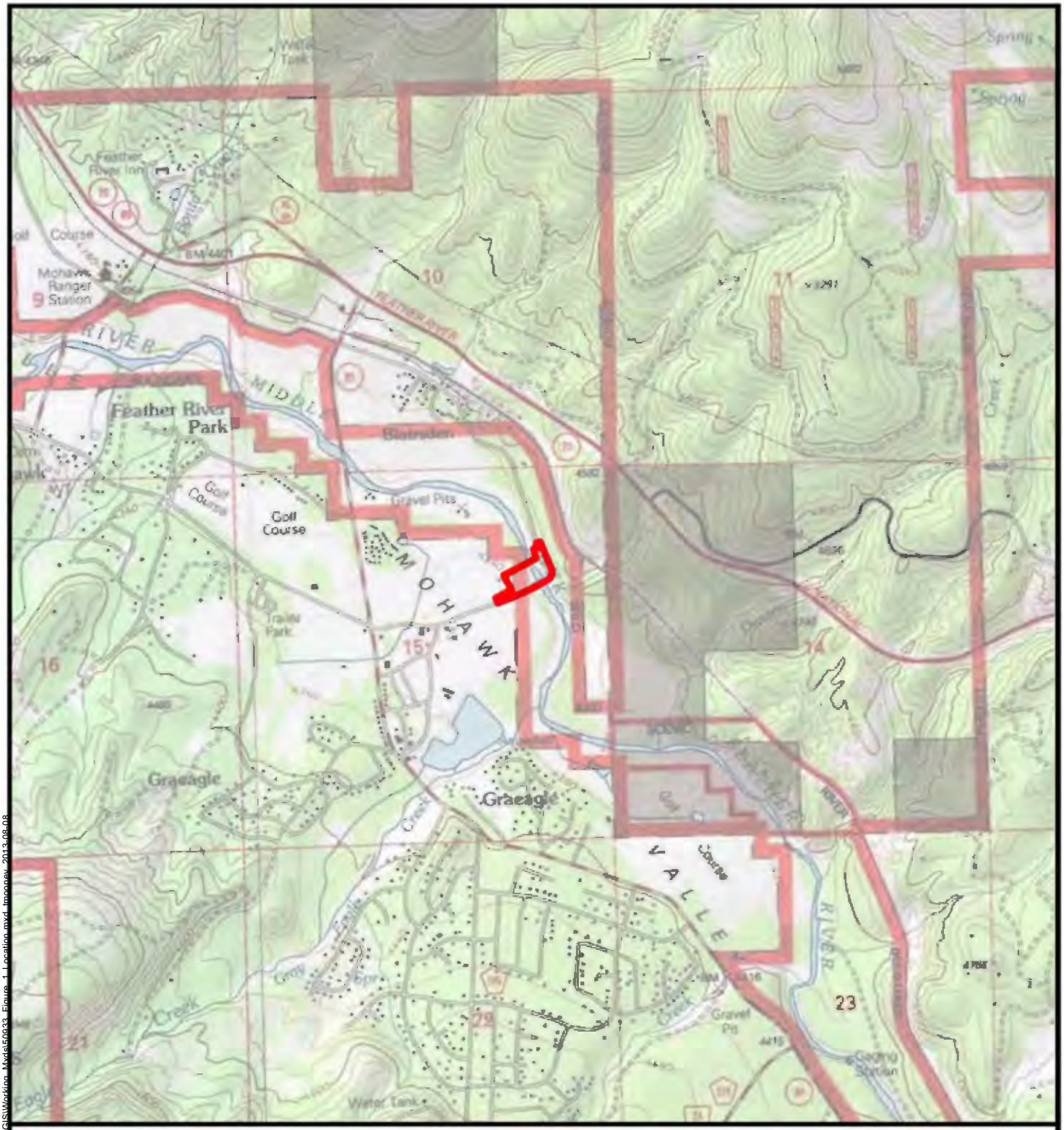
1.1. Location

The Biological Study Area (BSA) is located within Plumas County approximately 0.25 mile northeast of the community of Graeagle, California in Section 15, Township 22 North, Range 12 East in the Blairsden, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1 and Figure 2). The center of the study area is located at approximately latitude 39.772956°, longitude -120.611328° (World Geodetic System 84). Blairsden-Graeagle Road bisects the BSA from approximately 900 feet west of the Middle Fork Feather River easterly to its intersection with Bonta Street on the east bank of the Middle Fork Feather River. Bonta Street bisects the western portion of the BSA approximately 900 feet north and 600 feet south of its junction with Blairsden-Graeagle Road. The BSA also includes the Graeagle Transfer Station and Recycling Center north of Blairsden-Graeagle Road and portions of the Middle Fork Feather River and associated riparian habitat.

1.2. Project History

The existing Blairsden-Graeagle Bridge (also known as the Denton Bridge) was originally constructed in 1902 and renovated in 1965. The bridge is a nine-span, 264 ft. long bridge with a 115-ft single-span Pratt through truss main span. The main span is supported on concrete-filled steel cylinders. The eight approach spans are steel stringers supported on steel pile frame bents. The deck is corrugated steel planks with an Asphalt Concrete (AC) wearing surface. The south abutment is a steel pile frame with steel back wall, and the north abutment is concrete. The approach roadway is paved and is approximately 15 ft. wide.

The bridge replacement is needed to improve public safety. The need is based on the most current Caltrans Maintenance Report (dated 07/21/05), which indicates that the existing bridge is "Structurally Deficient" with a sufficiency rating of 15.8. An earlier Caltrans Maintenance Report (dated 08/25/01) indicates that the bridge is



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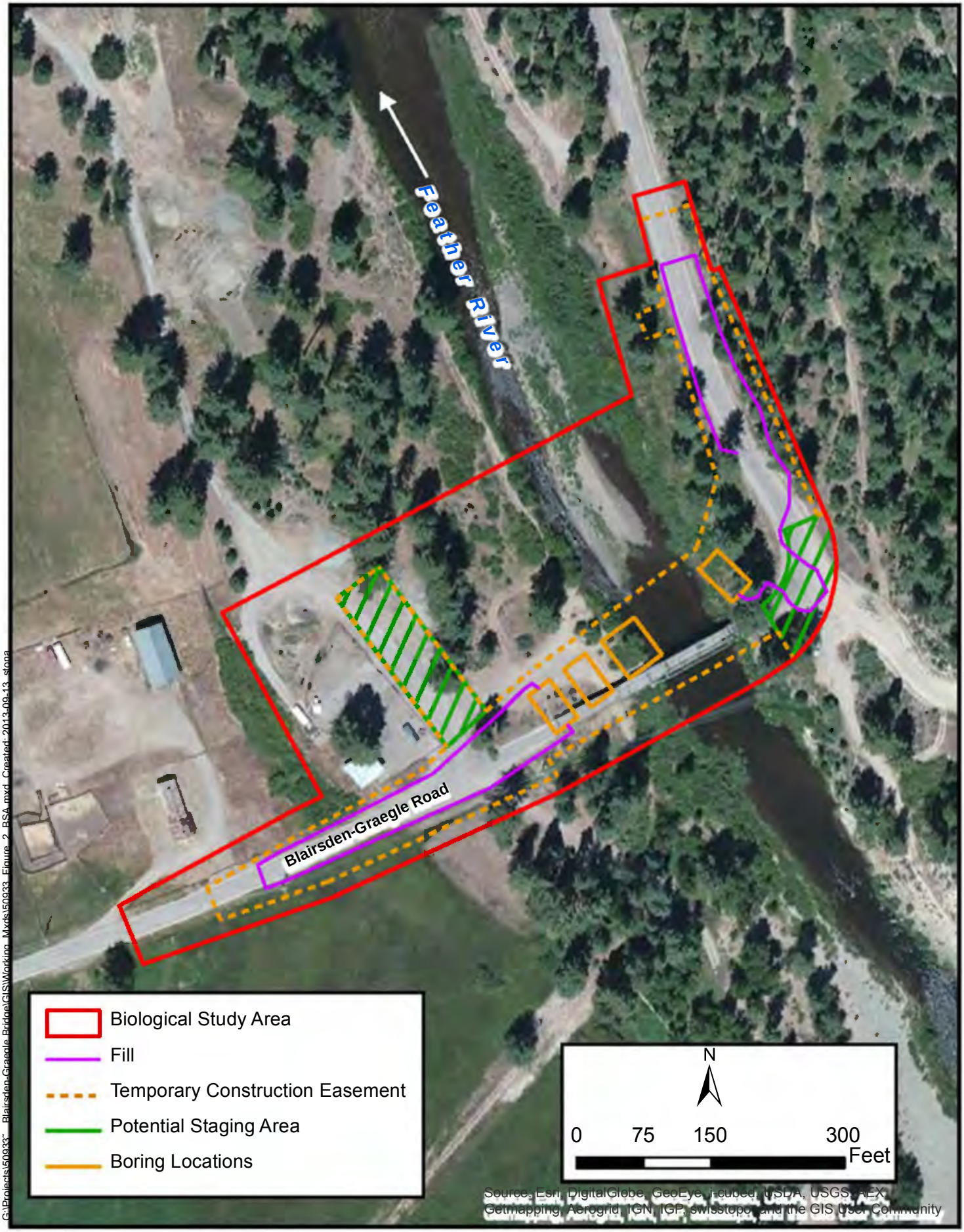
North State Resources, Inc.

Blairsden-Graeagle at Middle Fork Feather River Bridge 9C-0134 Replacement Project

Figure 1
Study Area Location and Vicinity



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North State Resources, Inc.

Blairsden-Graegle Road Bridge Replacement Project

Figure 2
Biological Study Area

"Functionally Obsolete" with a sufficiency rating of 45.9. A bridge with a sufficiency rating of less than or equal to 50 that is also Structurally Deficient or Functionally Obsolete is eligible for replacement.

1.3. Proposed Action

1.3.1. Project Description

The purpose of the project, as proposed by the Plumas County Department of Public Works (County) in coordination with Caltrans District 2, is to improve public safety by replacing the existing structurally deficient one-lane bridge with a new two-lane bridge immediately adjacent to and downstream of the current span, as depicted in Figure 3. The existing bridge will either be retained and rehabilitated to support pedestrian and bicycle use or demolished and removed following construction of the new bridge. This project is being funded by the Federal Highway Bridge Program [Federal Aid No. BRLO590990299].

Construction activities would generally involve site clearing, preparation, and earthwork; constructing new bridge foundations, abutments, retaining structures, deck, and guardrails; modifying the bridge approaches along Blairsden-Graeagle Road; applying pavement overlay, painting, and installing signs; removing the existing bridge structure or renovating or converting it to a pedestrian walkway; and revegetating disturbed areas. Construction methods will comply with Caltrans Standard Specifications and Plumas County requirements and will incorporate standard construction practices such as traffic control, best management practices, and emissions reductions to minimize environmental effects. Construction activities will be scheduled with consideration for seasonal and environmental limitations, such as winter conditions and sensitive biological resources.

1.3.1.1. Existing Bridge

The existing bridge will either be removed or rehabilitated to support pedestrian and bicycle usage. Additional hydraulic data and geotechnical data will need to be collected to determine if the existing bridge can be left in place for use as a pedestrian bridge. If the bridge needs to be removed, it will be dismantled and removed in sections following the completion of the new bridge construction. A form of containment such as fabric curtains would be placed under the bridge structure to contain debris. Bridge debris would be disposed of off-site at a licensed landfill. If the new bridge is left in place to function as a pedestrian and bikeway path, then it is likely that some form of bridge rehabilitation will be required. Rehabilitation may include scour protection, a new bridge railing, resurfacing of the deck, and new paint.

BLAIRSDEN-GRAEAGLE ROAD BRIDGE NO. 09C-0134 OVER FEATHER RIVER REPLACEMENT PROJECT

Area of Potential Effects Map Approved by:

Wayne Waid for CH — 2/22/12

Cassandra Hensher — Date
POS - Principal Investigator - Prehistoric Archeology
Caltrans D2, Office of Local Assistance

02.22.2012

Ian Howat P.E., Chief — Date
District of Local Assistance Engineer
Caltrans D2, Office of Local Assistance

AREA OF POTENTIAL EFFECTS (APE)
TEMPORARY CONSTRUCTION EASEMENT
PARCEL BOUNDARY
COUNTY ROAD EASEMENT
TOE OF FILL / TOP OF CUT
LIMITS OF BORING LOCATIONS

ARCHEOLOGICAL - Prehistoric and Historic
The Area of Potential Effects includes all existing (and proposed) Right of Way and temporary construction easements.
APE encompasses all Alternatives.

0 50 100ft
SCALE : 1"=100'

Feather River

Vertical APE in vicinity of proposed supports is approximately 70'.

Potential Staging Area

Existing Bridge

County of Plumas
130-020-010

Graeagle Land & Water Co.
130-020-012

UPRR

Potential Staging Area

Blairsden-Graeagle Rd

Graeagle Land & Water Co.
130-040-010

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1.3.1.2. Proposed Replacement Bridge Specifications

Three replacement bridge types are currently being considered for the downstream alignment. These include cast-in-place post-tensioned box girder and multi-span precast pre-stressed girders.

Piers are expected to be single columns supported on driven pile caps or large-diameter cast-in-drilled hole piles. The abutments are expected to be reinforced concrete seat-type with cantilever wingwalls, supported on spread footings or driven piles. The new bridge will have open railing.

The new bridge would require a new paved two-lane sweeping curve road at each approach. The length of the road approach would be determined based on the minimum length required to conform the new road to the existing road, considering both the horizontal and vertical conformance requirements. It is anticipated that a crowned roadway section would be used, with superelevation required for the curved alignment at the east end of the project. Any new fill material needed for the roadway approaches will come from commercial sources that are approved under the Surface Mining and Reclamation Act.

The County is still evaluating whether it will retain the existing bridge for use as a pedestrian and bicycle crossing or remove it following completion of the new bridge. Additional hydraulic and geotechnical data will need to be collected to determine if the existing bridge can be left in place. If the existing bridge is left in place to function as a pedestrian and bikeway path, it is likely that some form of bridge rehabilitation will be required. Based on initial observations, it appears that some type of scour protection may be required, as well as new bridge railing and resurfacing of the deck. The bridge may also need to be painted due to the presence of flaking, lead-based paint.

If the existing bridge is demolished, the bridge, its foundations, and existing roadway approaches would be removed from the project site following completion of the new roadway approaches and bridge structure. The existing bridge deck and girders would be cut at bents and lifted out with a crane. An excavator with a bucket or with a hammer would be used to break up the substructure elements (pier walls and abutments). Fabric curtains or some other form of containment may be placed under the bridge structure to contain debris. The old bridge, concrete, and rebar would be disposed of offsite at a licensed disposal or re-use facility.

Because the existing piers are far enough outside the active low-flow channel and there are sufficient work areas adjacent to the existing bridge from which to operate equipment, it is anticipated that all bridge demolition would take place from the bank and that no equipment would enter the channel. Under either the bridge rehabilitation or removal scenario, it is anticipated that associated activities will be confined to the project area.

Geotechnical Investigation

To support the engineering design process, a geotechnical investigation will need to be conducted at the two preferred bridge abutment locations and potentially one location within the floodplain. The geotechnical investigation will consist of boring up to 70 feet with a rubber-tired drill rig at each location. No work within the active flow channel of the Middle Fork Feather River will be required.

1.3.1.3. Construction Staging and Utilities

The construction staging area would be located on the asphalted access road located to the immediate east of the County transfer station (approximately 120 ft. north-south and 45 ft. east-west), as depicted in Figure 3. Geotechnical investigations, specifically boring, will be located at the eastern and western abutment locations.

The proposed undertaking will require the relocation of overhead utility lines. The utility lines include electrical lines on the western approach (parallel to Blairsden-Graeagle Road) and telephone lines on the northern approach (also parallel to Blairsden-Graeagle Road). Relocation activities will be confined to the BSA.

Plumas County would permanently acquire the necessary right-of-way (ROW) needed for project construction. In addition to the permanent ROW, temporary construction easements would be required for construction of the bridge and approach roadway, as well as for the Contractor's staging area. The existing bridge will remain open throughout construction so construction of a temporary detour will not be required. In the event that the bridge needs to be closed during construction (pending approval of the Public Works Director and Board of Supervisors), traffic will be able to use existing roads between the communities of Blairsden and Graeagle (Bonta Street, Blairsden-Graeagle Road, State Route (SR) 89).

1.3.2. Conservation Measures

This section describes the conservation measures proposed to minimize the anticipated temporary and permanent effects associated with the proposed project.

1.3.2.1. Conservation Measure #1 – Water Pollution Prevention

The construction contractor will be responsible for implementing erosion and sedimentation control measures that conform to Section 13 "Water Pollution Control" of Caltrans Standard Specifications. The contractor will also be responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) that identifies the project-specific best management practices (BMPs) to be implemented during construction. The BMPs would include, but are not limited to, the following:

- In-river construction activities shall be limited to June 1st to October 31st unless alternative work windows are agreed to by the regulatory agencies.
- Exercise every reasonable precaution to conduct and schedule operations so as to avoid or minimize muddying and silting of the Middle Fork Feather River.
- Limit vegetation removal to areas necessary for bridge construction and associated activities.
- Use temporary devices, such as dikes, basins, ditches, and straw to prevent pollutants from entering the Middle Fork Feather River and to stabilize slopes.
- Install facilities and devices used for water pollution control practices before performing work activities.
- Install soil stabilization materials for water pollution control practices in all work areas that are inactive or before storm events.
- Repair or replace water pollution control practices within 24 hours of discovering any damage.
- Implement effective handling, storage, usage, and disposal practices to control hazardous materials and manage waste and non-stormwater runoff in the work area before they come in contact with receiving waters.
- Keep materials or waste storage areas clean, well-organized, and equipped with enough cleanup supplies for the material being stored.
- Implement spill and leak prevention procedures for chemicals and hazardous substances stored in the work area.

- Contain and clean up spills of petroleum materials and other hazardous substances listed under 40 Code of Federal Regulations (CFR), parts 110 and 302 as soon as it is safe.

- Cover active and inactive soil stockpiles with soil stabilization material or a temporary cover and surround stockpiles with a linear sediment barrier.

- If fueling or maintenance must be done on-site, designate a location away from the river preferably at the staging area.

- Use containment berms or dikes around fueling and maintenance areas.

- Prevent demolished material from entering the river through use of authorized covers and platforms to collect debris.

- Do not operate mechanized equipment in the active river channel.

- Do not deposit material derived from roadway work in the river channel, including along the banks, where it could be washed away by high flows.

1.3.2.2. Conservation Measure #2 – Air Pollution and Dust Control

Air pollution and dust control will conform to Caltrans Standard Specifications Sections 14-9.02 "Air Pollution Control" and 14.9-03 "Dust Control" and Northern Sierra Air Quality Management District rules. The contractor will be required to implement a dust control program to limit fugitive dust emissions and submit a dust control plan to the air district. Notification of bridge demolition may be required for the California Air Resources Control Board and/or U.S. Environmental Protection Agency in accordance with their rules and regulations for hazardous pollutants.

The fugitive dust and emission controls identified in the dust control plan would include, but are not limited to, the following:

- Water or use a palliative on stockpiles and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust;

- Cover trucks hauling soil and other loose material or maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer) pursuant to California Vehicle Code (Section 23114) and air district Rule 226;

- Clean (sweep or wash with water) equipment used on unpaved surfaces prior to entering SR 89 to prevent tracking materials onto the highway;

- Minimize idling time of vehicles and equipment and shut off equipment when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485); and

- Maintain construction equipment in proper working conditions according to manufacturer's specifications, and check it daily to ensure it is in proper running condition before it is operated.

1.3.2.3. Conservation Measure #3 – Post-Construction Restoration

Disturbed areas outside of the new bridge location and roadway approaches will be restored to pre-disturbance conditions, including grading to prior contours and reseeding with native grasses. If the existing bridge is removed, excavated areas will be filled with native soil from the new bridge excavations. If the existing bridge is left in place and rehabilitated, no restoration will be necessary as there will be no impacts to the riparian habitat around the bridge. Natural regeneration of vegetation would be expected along the banks following bridge removal, and plantings are not expected to be necessary.

1.3.3. Document Preparation History

This document was prepared by the following:

- Wirt Lanning, Project Manager, North State Resources, Inc. (NSR)

- Amy Croft, Environmental Analyst

- Sarah Tona, GIS Specialist, NSR

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Chapter 2. Study Methods

2.1. Information Review

Special-status plant and animal species and/or other special habitats with the potential to occur in the project BSA were determined using the following information sources:

- Blairsden, California, United States Geological Service (USGS) 7.5-minute topographic quadrangle map;
- Aerial photographs of the BSA and the adjacent areas;
- United States Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur in the Blairsden, California, USGS 7.5-minute quadrangle and Plumas County (Appendix A);
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Data Base (CNDDB) records for the Blairsden, California USGS 7.5-minute topographic quadrangle (quad) and eight surrounding quads (Appendix A);
- California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Vascular Plants for the Blairsden, California USGS 7.5-minute quadrangle and the eight surrounding quadrangles (Appendix A);
- California Wildlife Habitat Relationships Version 8.2 Species Summary Report for Plumas County;
- The Jepson Manual: Vascular Plants of California (Baldwin et. al. 2012)

For the purposes of this evaluation, special-status plant species include both vascular and non-vascular plants that are (1) listed as threatened or endangered under the California Endangered Species Act (CESA) or the federal Endangered Species Act (ESA); (2) designated as rare by CDFW; (3) state or federal candidate or proposed species for listing as threatened or endangered; and/or (4) have a California Rare Plant Rank of 1A, 1B, 2A, or 2B (California Native Plant Society 2013).

Special-status animal species include species that are (1) listed as threatened or endangered under the CESA or ESA; (2) proposed or petitioned for federal listing as threatened or endangered; and/or (3) state or federal candidates for listing as

threatened or endangered. Other special-status animal species are identified by the CDFW as Species of Special Concern or California Fully Protected Species.

The CNDDB and CNPS on-line inventory were queried to establish a regional list of special-status species with documented occurrences on the *Blairsden, California* USGS 7.5-minute quadrangle and eight USGS surrounding quadrangles (Appendix A). These sources are state-maintained databases consisting of historic and recent observations of special-status animal and plant species, respectively, and special plant communities. Both databases are limited to reported sightings and are not comprehensive lists of faunal and floral species that may occur in a particular area. All special-status species listed as occurring in Plumas County on the USFWS official species list were also reviewed (Appendix A).

2.2. Field Investigations

On September 26 and 27, 2011, NSR conducted a reconnaissance-level biological survey to characterize the habitat within the BSA and to evaluate the potential for project-related impacts on special-status species and other sensitive biological resources. The habitat assessment included an evaluation of all habitats within and directly adjacent to the BSA to determine the potential for special-status animal species or other sensitive biological resources to occur or be affected by the proposed project. Representative Photographs of the BSA are found in Appendix C.

NSR conducted a routine delineation of waters of the United States on September 26 and 27, 2011. The delineation was based on field observations of positive indicators for wetland vegetation, hydrology, and soils and indicators of the ordinary high water mark (OHWM) for other waters, as described in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U. S. Army Corps of Engineers 2010), and in the Corps regulations (33 CFR 328.3 and 33 CFR 328.4).

Focused botanical surveys were conducted on June 8, 2012 and September 7, 2012 during the blooming periods for special-status plant species with potential to occur within the BSA. In addition to surveying for special-status plants, all plants species including invasive species were documented (Appendix E).

2.3. Personnel and Survey Dates

The following personnel were responsible for field surveys and conducting or assisting with the studies described above:

John Hunt, Wildlife Biologist, North State Resources, Inc.
Reconnaissance-level wildlife survey, wetland delineation, and vegetation mapping, August 26 and 27, 2010 and September 9, 2010

Sarah Tona, Botanist, North State Resources, Inc.
Botanical Surveys, June 8, 2012 and September 7, 2012

2.4. Limitations That May Influence Results

All field studies were conducted in accordance with applicable protocols and no problems were encountered. There were no conditions or limitations encountered that effect the results of this NES-MI.

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Chapter 3. Results: Environmental Setting

3.1. Description of Existing Biological and Physical Conditions

3.1.1. Physical Conditions

The BSA is located along the upper Middle Fork Feather River, between SR 70 and 89 within a rural montane region of Plumas County. The BSA is located along the eastern edge of the Mohawk Valley alluvial plain at the toe of Penmann Peak. Topography in the BSA is characterized by a gently sloping alluvial plain along the west side of the Middle Fork Feather River and rises to more steeply sloping hills to the east. The banks of the Middle Fork Feather River slope approximately 15 to 20 feet down to the low-flow river channel.

3.1.2. Elevation and Climate

The BSA lies at approximately 4,340 feet above mean sea level. Precipitation in the BSA falls primarily as snow. Average monthly maximum air temperatures in the BSA range from a January high of 43ºF (Fahrenheit) to a July high of 86ºF. The annual average high is approximately 63ºF. Average monthly minimum air temperatures range from a January low of 27ºF to a July low of 41ºF. The annual average low is approximately 28ºF (Western Regional Climate Center 2011).

3.1.3. Soils

The soil map units within the BSA are described in the Soil Survey for the Plumas National Forest Area, California (Natural Resources Conservation Service 2013).

- Badenaugh very gravelly loam, 2 to 5 percent slopes (10) – Classified as loamy-skeletal, mixed, mesic Typic Argixerolls, these are non-hydric soils are composed of well-drained alluvium derived from a mix of upstream parent material. Depth to restrictive layer is greater than 80 inches and depth to water table is generally greater than 80 inches.

- Chaix-Wapi families complex, 2 to 30 percent slopes (119) – Classified as coarse-loamy, mixed, mesic Dystric Xerochrepts (Chaix family) and mixed, mesic Lithic Xeropsamments (Wapi family), these are well-drained non-hydric soils derived largely from weathered bedrock. A restrictive layer of bedrock occurs from approximately 45-49 inches.

- Riverwash-Fluvents complex, 0 to 5 percent slopes (237) – Taxonomically unclassified, these are non-hydric soils composed of excessively drained stony loamy sand to gravelly loam alluvium derived from a mix of upstream parent material. Depth to an unspecified restrictive layer is 0-60 inches.

- Sattley-Franktown families complex, 0 to 30 percent slopes (252) – Classified as loamy-skeletal, mixed, frigid Ultic Argixerolls (Sattley family) and loamy-skeletal, mixed, frigid Lithic Ultic Haploxerolls (Franktown family), this is a complex of non-hydric, well-drained cobbly loams formed from residuum of weathered lithic bedrock. The depth to a restrictive layer of bedrock ranges from 45-50 inches for Sattley soils and 7-11 inches for Franktown soils.

3.1.4. Hydrological Setting

The primary hydrological feature within the BSA is the Middle Fork Feather River. Wet meadows are located in the southwestern portion of the BSA. The wet meadows are used as pasture and hydrology is enhanced by irrigation. Intermittent streams drain these wet meadows east to the Middle Fork Feather River.

3.1.5. Biological Conditions

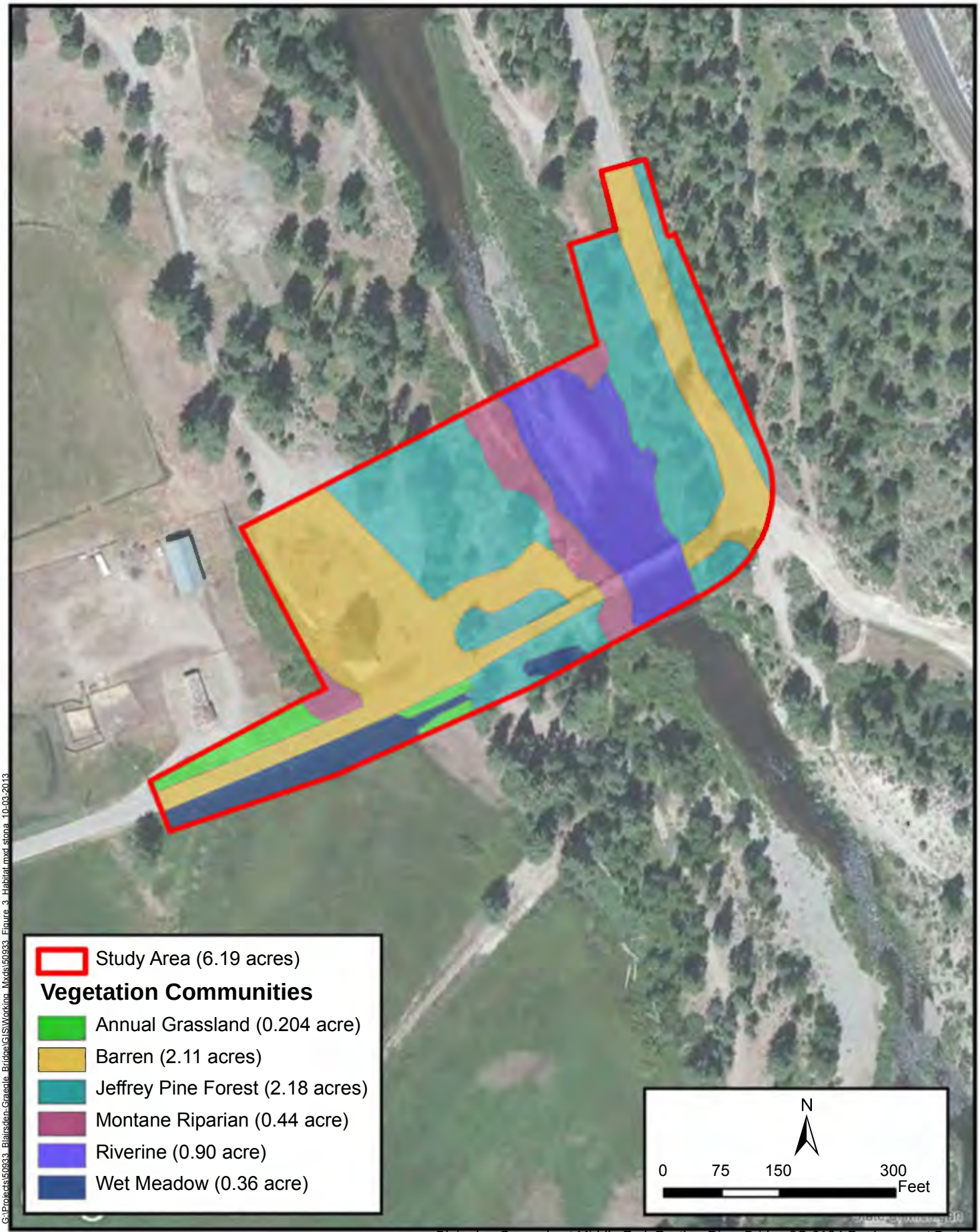
The BSA is located within a mix of riparian, coniferous forest, and meadows historically converted to irrigated pasture. Vegetation communities and other habitat types were classified based on the descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988). Habitat types occurring within the BSA include Jeffrey pine, annual grasslands, montane riparian, wet meadow, riverine, and barren (Figure 4). Descriptions for each habitat type are provided below.

3.1.5.1. Jeffrey Pine

Jeffrey pine forest is the primary habitat within uplands of the BSA. This vegetation community is dominated by Jeffrey pine (*Pinus jeffreyi*) stands. Scattered understory shrubs include big sagebrush (*Artemisia tridentata*), antelope brush (*Purshia tridentata*), and bitter cherry (*Prunus emarginata*). The herbaceous layer is dominated by cheat grass (*Bromus tectorum*), blue wild rye (*Elymus glaucus*), and creeping wild rye (*Leymus triticoides*) near the riparian corridor.

3.1.5.2. Annual Grassland

Annual grassland habitat is located adjacent to Blairsden-Graeagle Road in the southwest portion of the BSA. It is also found adjacent to the wet meadow in the



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Blairsden-Graeagle at Middle Fork Feather River Bridge 9C-0134 Replacement Project

North State Resources, Inc.

Figure 4

Vegetation Communities

south portion of the BSA. Dominant species include cheat grass, blue wild rye, and creeping wild rye.

3.1.5.3. Montane Riparian

Montane riparian habitat is found along the Middle Fork Feather River and, to a lesser extent, along the intermittent streams found in the southwest and southeast portions of the BSA. Stands of arroyo willow (Salix lasiolepis) and red willow (Salix laevigata) dominate the shrub layer in these areas. Dominant herbaceous species include reed canary grass (Phalaris arundinacea) and torrent sedge (Carex nudata) adjacent to the river. Black cottonwood (Populus trichocarpa) and mountain alder (Alnus incana ssp. tenuifolia) are sparse and located along the northern part of the BSA along the banks of the river.

3.1.5.4. Wet Meadow

Wet meadows are found in the westerly and southwesterly portion of the BSA. These meadows currently serve as pasture. Hydrology in the BSA appears to be enhanced by irrigation. Vegetation within these meadows is herbaceous and dominated by black cyperus (Cyperus niger), velvet grass (Holcus lanatus), Baltic rush (Juncus balticus), and iris-leaved rush (Juncus xiphioides).

3.1.5.5. Riverine

Riverine habitat includes open water within the Middle Fork Feather River. Widths of riverine habitat within the BSA range from approximately 75 to 175 feet. The riverine substrate consists primarily of bedrock, cobble, gravel, and sand. Stands of torrent sedge and canary reed grass have colonized emergent rocky and gravely substrates fringing open water areas. Riparian wetlands are found in deeper sandy soils adjacent to riverine habitat within the BSA.

3.1.5.6. Barren

The barren habitat is characterized as generally devoid of vegetation, as well as roads, parking areas, road shoulders, and other areas cleared of vegetation found within the BSA. Barren habitat is found throughout the BSA. Sparse opportunistic weedy or ruderal species such as cheat grass and Spanish lotus (Lotus purshianus) are present within barren habitats in the BSA.

3.2. Regional Species and Habitats of Concern

3.2.1. Special-Status Plants

A review of all special-status plant species with potential to occur in the project region was conducted to determine the potential for these species to occur within the BSA (Appendix B). All plant species observed during the botanical surveys on June 8, 2012 and September 7, 2012 were identified to the taxonomic level necessary to determine their regulatory status (See Appendix E – Plants Observed). Based on those surveys, it was determined that no special-status plant species are likely to occur within the BSA.

3.2.2. Special-Status Animals

The general habitat requirements of all special-status animal species with potential to occur in the project region were reviewed to determine the potential of these species to occur within the BSA (Appendix B). Based on a review of these species' habitat requirements and the results of the field assessment, the proposed project will have no effect on federally listed species; however, one state-listed and seven special-status species were determined to have the potential to occur in the BSA and could be impacted by the proposed project (Table 1).

Table 1 Special-Status Animals with Potential to Occur in the Project BSA

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat Description
Amphibians		
Foothill yellow-legged frog *Rana boylii*	—/SSC	Cool, fast moving rocky streams in a variety of habitats.
Birds		
Olive-sided flycatcher *Contopus cooperi*	—/SSC	Typically nests along horizontal limb of large trees in mixed coniferous forests.
Yellow warbler *Dendroica petechia brewsteri*	—/SSC	Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods.
Yellow-breasted chat *Icteria virens*	—/SSC	Breeds in early successional riparian habitats.
Little willow flycatcher *Empidonax traillii brewsteri*	—/E	Nests in willows and other shrubs within and near wet meadows and seeps. Typically nesting habitat is in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.
Mammals		
Townsend's big-eared bat *Corynorhinus townsendii*	—/SSC	Roosts in colonies in caves, mines, tunnels, or buildings in mesic habitats. Habitat must include appropriate roosting, maternity and hibernacula sites free from disturbance by humans.

Table 1 Special-Status Animals with Potential to Occur in the Project BSA

Common Name Scientific Name	Status[1] (Fed/State)	General Habitat Description
Pallid bat *Antrozous pallidus*	—/SSC	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves.
Western red bat *Lasiurus blossevillii*	—/SSC	Prefers sites with a mosaic of habitats that includes trees for roosting and open areas for foraging. Strongly associated with extensive stands of riparian

[1]Federal and State Codes: SSC = Species of Special Concern (State); FP = California Fully Protected Species.

3.3. Other Sensitive Biological Resources

3.3.1. Waters of the United States

The delineation of waters of the United States identified four feature types within the BSA: perennial stream (the Middle Fork Feather River which bisects the BSA), intermittent stream, riparian wetland and a wet meadow (Figure 5). These features occupy a total of 1.221 acres of the BSA (Table 2). Riparian wetlands (0.067 acre) found within the OHWM of the perennial stream is double counted towards the "total waters of the United States" value (Table 2). Verification of the delineation by the Corps is pending. A copy of the delineation report, which was previously reviewed and approved by Caltrans District on September 19, 2013 is in Appendix D.

Table 2 Summary of Waters of the United States

Waters of the United States	Total Acreage	Total Linear Feet
Other Waters		
Perennial Stream	0.923	351
Intermittent Stream	0.006	237
Wetlands		
Riparian Wetland	0.080 (0.067 within OHWM of Perennial Stream)	N/A
Wet Meadow	0.212	N/A
Total Waters of the United States	**1.221**	**588**

Waters of the United States

Other Waters

Label	Type	Acres	Length (ft)	Width (ft)
PS1	*Perennial Stream	0.923	351	30-150
	Subtotal	0.923	351	
IS1	Intermittent Stream	0.002	60	1.5
IS2	Intermittent Stream	0.004	177	1.5
	Subtotal	0.006	237	
	Total Other Waters	**0.929**	**588**	

Wetlands

Label	Type	Acres	Length (ft)	Width (ft)
RW1	Riparian Wetland	0.035	-	-
RW2	Riparian Wetland	0.021	-	-
RW3	Riparian Wetland	0.011	-	-
RW4	Riparian Wetland	0.005	-	-
RW5	Riparian Wetland	0.005	-	-
RW6	Riparian Wetland	0.001	-	-
RW7	Riparian Wetland	0.002	-	-
	Subtotal	0.080	-	-
WM1	Wet Meadow	0.212	-	-
	Subtotal	0.212	-	-
	Total Wetlands	**0.292**	**-**	**-**
	Total Waters of the U.S.	**1.221**	**588**	

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Plumas County
Department of Public Works
1834 East Main
Quincy, CA 95971

Notes:

Delineator: John Hunt
Delineation Date: 9-27-11
Orthophotography: Bing Maps

This delineation of waters of the United States is subject to verification by the U.S. Army Corps of Engineers (Corps). NSR advises all parties that the delineation is preliminary until the Corps provides a written verification.

N

0 50 100 200 Feet

Blairsden-Graeagle Road at Middle Fork Feather River
Bridge 9C-0134 Replacement Project

Figure 5
Waters of the United States
August 7, 2013

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3.3.2. Riparian Habitat

Riparian habitat within the BSA is found along the Middle Fork Feather River. Dominant shrub species include arroyo willow and red willow along the banks of the Middle Fork Feather River. Dominant herbaceous species include reed canary grass and torrent sedge. Black cottonwood and mountain alder are sparse and located along the northern extent of the BSA near the banks of the river.

3.3.3. Migratory Birds and Nesting Raptors

Migratory birds and their nests are protected from take under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3513. All raptor species, including relatively common species and their nests, are also protected from take according to California Fish and Game Code. The Jeffrey pine forest, montane riparian and wet meadows in the BSA provide potential nesting habitat for migratory birds and raptors.

3.3.4. Invasive Plants

Invasive plant species are taxa that are rated as High by the California Invasive Plant Council (California Invasive Plant Council 2006); and/or (2) by the California Department of Food and Agriculture (CDFA) (California Department of Food and Agriculture 2011). Within the BSA, cheat grass (Bromus tectorum) occurs within the annual grassland and Jeffrey pine habitat types.

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Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Potential Impacts on Special-Status Plant Species

Based on botanical surveys conducted on June 8, 2012 and September 7, 2012, it was determined that no special-status plant species are likely to occur within the BSA. Therefore, the proposed project would not affect any special-status plant species.

4.2. Potential Impacts on Special-Status Animal Species

The proposed project could affect five special-status wildlife species. A discussion of the habitat requirements, potential for occurrence, potential project-related impacts, cumulative effects, and recommended avoidance and minimization measures for the species is provided below.

4.2.1.1. Foothill Yellow-Legged FrogPotential for Occurrence

The foothill yellow-legged frog, a California Species of Special Concern, is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, and wet meadow types. Adults often bask on exposed rock surfaces near streams. During periods of inactivity individuals seek cover under rocks in the streams or on shore within a few meters of water. Unlike most other ranid frogs in California, this species is rarely encountered far from permanent water. Tadpoles require water for at least three or four months while completing their aquatic development. Its known elevation range extends from near lea level to 1,940 m (6,365 ft.) (Jennings and Hayes 1994).

The Middle Fork Feather River may provide breeding and/or foraging habitat for the foothill yellow-legged frog. There are no known CNDDB occurrences within 5 miles of the proposed project site (CDFW 2013).

4.2.1.2. Project Impacts

Bridge installation across the Middle Fork Feather River could disturb or result in direct injury or mortality to foothill yellow-legged frogs, their tadpoles, or their egg masses if present within the BSA. Pier construction would take place along the banks of the river and within the edge of the active channel, which could result in direct impacts on foothill-yellow legged frog. Indirect impacts could result from degraded

water quality during construction if polluted runoff or other contaminants enter the creek.

Conservation Measures #1, #2, and #3 in conjunction with Avoidance and Minimization Measures outlined in Chapter 5 will ensure the proposed project results in minimal adverse impacts on the foothill yellow-legged frog.

4.2.1.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects on the foothill yellow-legged frog. No other past, present, or reasonably foreseeable projects have been identified in this reach of the Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts on these species.

4.2.2. Special-Status Birds: Olive-sided Flycatcher, Yellow Warbler, Yellow-breasted Chat, Little Willow Flycatcher

The following special-status bird species have potential to nest in or near the BSA: olive-sided flycatcher, yellow warbler, yellow-breasted chat and little willow flycatcher.

4.2.2.1. Potential for Occurrence

Olive-sided Flycatcher

The olive-sided flycatcher, a California Species of Special Concern, is a neotropical migrant occurring primarily in late-successional conifer forests with open canopies in most mountain ranges throughout California. They are mainly associated with edges and with natural and human-made openings. Their diet is composed almost entirely of insects foraged in unobstructed airspace from snags and perches. This species builds open-cup nests often in conifers, but have also been found in willows (Salix spp.), alders (Alnus spp.), oaks (Quercus spp.), and eucalyptus (Eucalyptus spp.) (Shuford and Gardali 2008). Suitable nesting habitat is located within the Jeffrey pine habitat and riparian habitat within and adjacent to the BSA. There are no known CNDDB occurrences within 5 miles of the proposed project site (CDFW 2013).

Yellow Warbler

The yellow warbler, a California Species of Special Concern, is a long-distance migrant, usually arriving in California in April and leaving by October. The species breeds from mid-April to early August, building an open cup nest in a tree or shrub. It is usually found in riparian deciduous habitats with cottonwoods, willows, alders, and

other small trees and shrubs typical of open-canopy riparian woodlands (Zeiner et al. 1990a). Foraging patterns typically involve gleaning and hovering for insects and spiders. Within the BSA, suitable nesting habitat is present within the riparian areas along the Middle Fork Feather River. There are no known CNDDB occurrences within 5 miles of the proposed project site (CDFW 2013).

Yellow-Breasted Chat

The yellow-breasted chat, a California Species of Special Concern, is a neotropical migrant occurring in California as a migrant and summer resident from late March to late September. The chat nests primarily in early successional riparian habitats with a well-developed shrub layer and an open canopy (Shuford and Gardali 2008). Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers. Blackberry (Rubus spp.), wild grape (Vitis spp.), willow, and other plants that form dense thickets and tangles are commonly selected as nesting sites (Shuford and Gardali 2008). Within the BSA, suitable nesting habitat is present within some of the riparian areas along the Middle Fork Feather River. There are no known CNDDB occurrences within 5 miles of the proposed project site (CDFW 2013).

Little Willow Flycatcher

The little willow flycatcher, California Endangered, is one of five subspecies of the willow flycatcher. It breeds in California from Tulare County north, along the western side of the Sierra Nevada and Cascades, extending to the coast in northern California (Craig and Williams 1998). In California, the little willow flycatcher is a rare to locally uncommon summer resident in wet meadows and montane riparian habitats from 2,000-8,000 feet in elevation and a common spring and fall migrant at lower elevations, primarily in riparian habitats, throughout the state exclusive of the North Coast mid-May through early September (Zeiner et al. 1990a). This subspecies nests in dense riparian thickets and forages for insects, berries, and seeds. Within the BSA, suitable nesting habitat is present within some of the riparian areas along the Middle Fork Feather River. The nearest CNDDB record for this species is located approximately 4 miles southeast of the BSA (CDFW 2013).

4.2.2.2. Project Impacts

Construction activities along the banks of the Middle Fork Feather River associated with bridge installation could result in disturbance to nesting special-status birds (yellow warbler, yellow-breasted chat, olive-sided flycatcher, and little willow flycatcher) if present in the riparian habitat during vegetation removal or construction. Staging activities and overall construction activities in the BSA could disturb

potentially nesting olive-sided flycatchers in nearby Jeffrey pine habitat. Construction activities, including vegetation removal, during the nesting season for the birds (typically March 1 through August 31) could result in the loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Implementation of Avoidance and Minimization Measures outlined in Chapter 5 will ensure the proposed project results in minimal adverse impacts to these species during the nesting season.

The proposed project would result in a minimal loss of riparian habitat within the BSA, which could provide nesting habitat for the yellow warbler and yellow-breasted chat. Riparian habitat is locally and regionally abundant along the Middle Fork Feather River; therefore, the minimal loss of habitat associated with bridge construction (less than 0.01 acre) is not expected to result in adverse effects on these species.

4.2.2.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects on special-status bird species. No other past, present, or reasonably foreseeable projects have been identified in this reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts to these special-status bird species.

4.2.3. Special-Status Bats: Townsend's big-eared bat, Pallid bat and Western Red Bat

4.2.3.1. Potential for Occurrence

Townsend's big-eared bat

Townsend's big-eared bat is a CDFW Species of Special Concern and is found throughout California. It requires caves, mines, tunnels, buildings, or other human-made structures for roosting. Townsend's big-eared bat prefers mesic habitats and feeds along habitat edges, gleaning for moths in the air by echolocation (Zeiner et al. 1990a). Rearing of young occurs in May and June. There was no evidence of roosting bats (e.g. urine stains, guano, chirping) observed during the reconnaissance survey, however, the existing bridge may provide suitable roosting habitat for Townsend's big-eared bats. The nearest CNDDB record for this species is located approximately 5 miles northwest of the BSA (CDFW 2013).

Pallid bat

Pallid bat is a CDFW Species of Special Concern and is found throughout California in a variety of habitats extending up to 6,000 feet elevation in the Sierra Nevada (Pierson and Rainey 2008). Common roost sites are rock crevices, old buildings, bridges, caves, mines, and hollow trees (Pierson and Rainey 2008). Rearing of young occurs in early summer (Pierson and Rainey 2008). There was no evidence of roosting bats (e.g. urine stains, guano, chirping) observed during the reconnaissance survey, however the existing bridge may provide suitable roosting habitat for pallid bats. The nearest CNDDB record for this species is located approximately 4 miles east of the BSA (CDFW 2013).

Western Red Bat

The western red bat is a CDFW Species of Special Concern and if found throughout California. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests (Zeiner et al. 1990a). Roost sites are primarily in trees on the edge of habitats adjacent to streams or fields. Rearing occurs in late May thru early July (Zeiner et al. 1990a). The western red bat prefers edges or habitat mosaics that have trees for roosting and open areas for foraging (Zeiner et al. 1990a). There was no evidence of roosting bats (e.g. urine stains, guano, chirping) observed during the reconnaissance survey, however the Jeffrey Pine Forest within the BSA may provide suitable roosting habitat for western red bats. There are no known CNDDB occurrences within 5 miles of the proposed project site (CDFW 2013).

4.2.3.2. Project Impacts

If Townsend's big eared bats, pallid bats or western red bats use the existing bridge for roosting, construction of the new bridge could result in disruption of roosting and/or rearing of young. Possible removal of the current bridge is expected to take place in September or October, which is outside the rearing season (March 1 through July 31) and would avoid potential impacts on maternity colonies or young bats. If western red bats are roosting in large trees in the Jeffrey pine habitat that would be removed due to project activities, tree removal would result in disruption to roosting bats. Other construction-related disturbance could occur to day roosts on the current bridge during construction of the new bridge, however, the potential for roosting activity is considered low since no evidence or roosting bats was observed. In addition, construction-related noise disturbance could occur to roosting western red bats in the nearby Jeffrey pine forest habitat. Implementation of Avoidance and Minimization Measures outlined in Chapter 5 will ensure the proposed project would result in minimal adverse impacts to special-status bat species.

4.2.3.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects on special-status bat species. No other past, present, or reasonably foreseeable projects have been identified in this reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts to these special-status bat species.

4.3. Other Sensitive Biological Resources

4.3.1. Waters of the United States

4.3.1.1. Survey Results

A delineation of "waters of the United States" concluded that jurisdictional features in the BSA include perennial stream, intermittent streams, riparian wetlands and wet meadow (Appendix D). These features occupy a total of 1.221 acre of the project area.

4.3.1.2. Potential Impacts

Total permanent impact on waters of the United States is 0.0183 acre (Table 3 Figure 6).

Table 3 Summary of Impacts on Waters of the United States

Type	Area (acre)	Length (ft.)
Perennial Stream	0.0135	351
Intermittent Stream	0.0001	4.5
Riparian Wetland	0.0045	—
Riparian Wetland	0.0001	—
Riparian Wetland	0.0001	—
Total Permanent Impacts	**0.0183**	**355.5**

The new bridge abutments would be installed along the approach and banks of the Middle Fork Feather River, and the retaining wall and associated approach would be constructed on the banks of the river above the abutment. Based on the preliminary bridge design, both of the bridge abutments would be placed within the OHWM of the Middle Fork Feather River, which would result in a total of 0.0135 acre of permanent impacts to perennial stream and 0.0045 acres of permanent impacts to riparian wetland (found within the OHWM). Project activities associated with road improvements would result in a total of 0.002 acres of permanent impacts to riparian wetlands and

0.0001 acre of permanent impacts to an intermittent stream. Temporary impacts to waters of the Unites States total 0.3138 acre and consist of 0.2468 acre of perennial stream, 0.0015 acre of intermittent stream, 0.005 acre of riparian wetland and 0.0605 acre of wet meadow. Based on the amount of permanent and temporary impacts the proposed project qualifies for a Nationwide Permit 14 (Linear Transportation Projects).

Avoidance and Minimization Measures described in Chapter 5 would protect riparian wetlands along the Middle Fork Feather River outside the construction footprint.

Construction activities near the Middle Fork Feather River, riparian wetlands, intermittent streams and wet meadow could cause erosion, sedimentation, accidental fuel leaks, and spills that could affect water quality of these features. Implementation of Conservation Measures #1, #2, and #3 in conjunction with Avoidance and Minimization Measures outlined in Chapter 5 will ensure the proposed project results in minimal adverse water quality-related effects on waters of the United States.

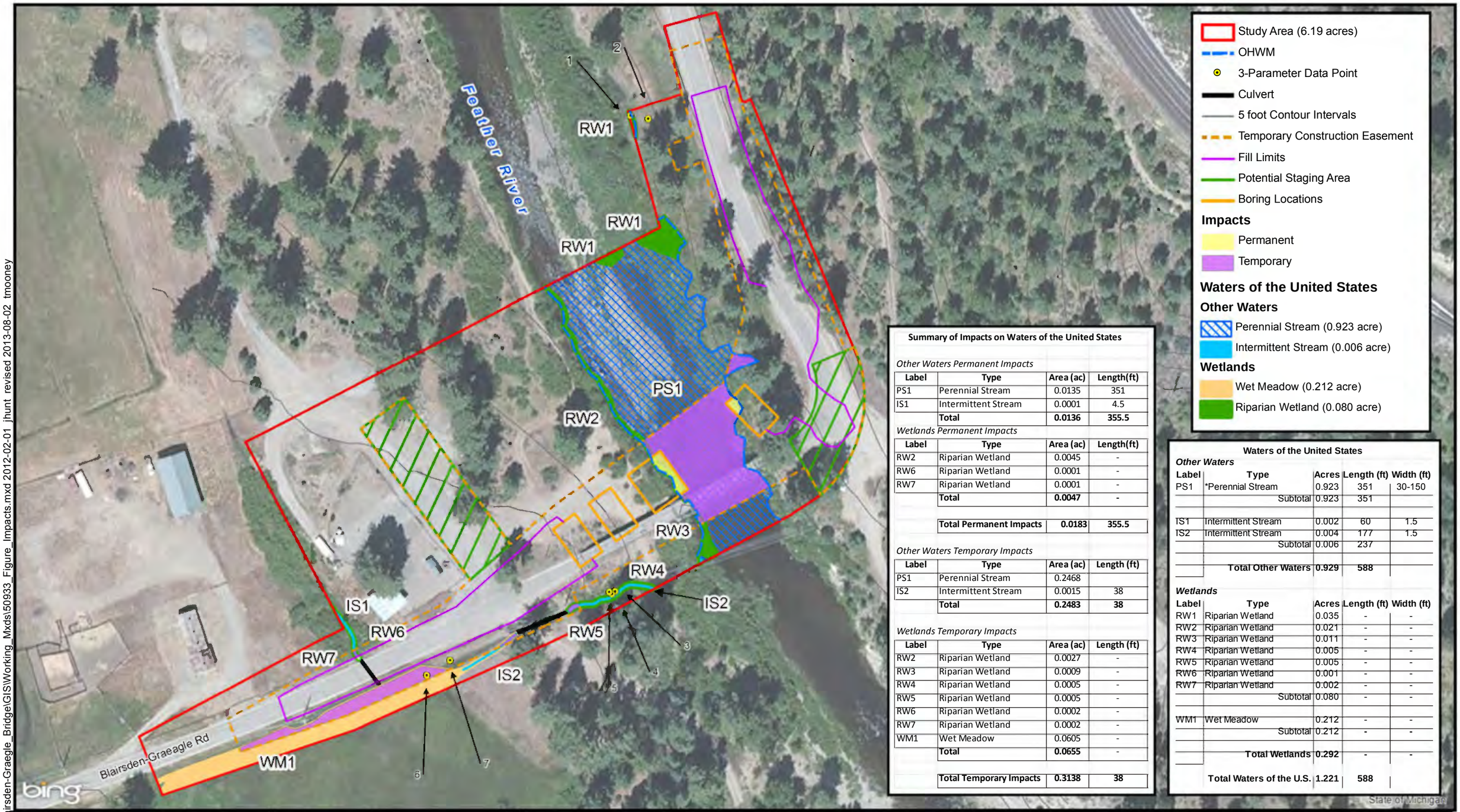
4.3.1.3. Compensatory Mitigation

Impacts to waters of the United States shall be compensated through the purchase of appropriate credits at a Corps approved mitigation site, or appropriate payment into a Corps approved in-lieu fee fund. The amount of avoided waters to be permanently protected shall be sufficient to offset the impact and shall be determined by the Corps, CDFW, and the applicant during the permitting process.

To conduct instream construction activities, temporary gravel work pads will be installed to contain debris and provide access. Temporary impacts to perennial stream, intermittent stream, riparian wetlands and wet meadow associated with construction easements will be restored and returned to original grade.

4.3.1.4. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, avoidance and minimization measures as required, and compensatory mitigation, the proposed project would not result in cumulatively considerable adverse effects on waters of the United States. No other past, present, or reasonably foreseeable projects have been identified in this reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts to waters of the United States.



Study Area (6.19 acres)
OHWM
3-Parameter Data Point
Culvert
5 foot Contour Intervals
Temporary Construction Easement
Fill Limits
Potential Staging Area
Boring Locations

Impacts

Permanent
Temporary

Waters of the United States

Other Waters

Perennial Stream (0.923 acre)
Intermittent Stream (0.006 acre)

Wetlands

Wet Meadow (0.212 acre)
Riparian Wetland (0.080 acre)

Summary of Impacts on Waters of the United States

Other Waters Permanent Impacts

Label	Type	Area (ac)	Length(ft)
PS1	Perennial Stream	0.0135	351
IS1	Intermittent Stream	0.0001	4.5
	Total	**0.0136**	**355.5**

Wetlands Permanent Impacts

Label	Type	Area (ac)	Length(ft)
RW2	Riparian Wetland	0.0045	-
RW6	Riparian Wetland	0.0001	-
RW7	Riparian Wetland	0.0001	-
	Total	**0.0047**	**-**
	Total Permanent Impacts	**0.0183**	**355.5**

Other Waters Temporary Impacts

Label	Type	Area (ac)	Length (ft)
PS1	Perennial Stream	0.2468	
IS2	Intermittent Stream	0.0015	38
	Total	**0.2483**	**38**

Wetlands Temporary Impacts

Label	Type	Area (ac)	Length (ft)
RW2	Riparian Wetland	0.0027	-
RW3	Riparian Wetland	0.0009	-
RW4	Riparian Wetland	0.0005	-
RW5	Riparian Wetland	0.0005	-
RW6	Riparian Wetland	0.0002	-
RW7	Riparian Wetland	0.0002	-
WM1	Wet Meadow	0.0605	-
	Total	**0.0655**	-
	Total Temporary Impacts	**0.3138**	**38**

Waters of the United States

Other Waters

Label	Type	Acres	Length (ft)	Width (ft)
PS1	*Perennial Stream	0.923	351	30-150
	Subtotal	0.923	351	
IS1	Intermittent Stream	0.002	60	1.5
IS2	Intermittent Stream	0.004	177	1.5
	Subtotal	0.006	237	
	Total Other Waters	**0.929**	**588**	

Wetlands

Label	Type	Acres	Length (ft)	Width (ft)
RW1	Riparian Wetland	0.035	-	-
RW2	Riparian Wetland	0.021	-	-
RW3	Riparian Wetland	0.011	-	-
RW4	Riparian Wetland	0.005	-	-
RW5	Riparian Wetland	0.005	-	-
RW6	Riparian Wetland	0.001	-	-
RW7	Riparian Wetland	0.002	-	-
	Subtotal	0.080	-	-
WM1	Wet Meadow	0.212	-	-
	Subtotal	0.212	-	-
	Total Wetlands	**0.292**	**-**	**-**
	Total Waters of the U.S.	**1.221**	**588**	

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Department of Public Works
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Notes:

Delineator: John Hunt
Delineation Date: 9-27-11
Orthophotography: Bing Maps

This delineation of waters of the United States is subject to verification by the U.S. Army Corps of Engineers (Corps). NSR advises all parties that the delineation is preliminary until the Corps provides a written verification.

N

0 50 100 200 Feet

Blairsden-Graeagle Road at Middle Fork Feather River
Bridge 9C-0134 Replacement Project

Figure 6
Impacts on Waters of the United States
September, 2013

G:\Projects\50933_Blairsden-Graegle_Bridge\GIS\Working_Mxds\50933_Figure_Impacts.mxd 2012-02-01 jhunt revised 2013-08-02 tmooney

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4.3.2. Nesting Migratory Birds and Raptors

4.3.2.1. Survey Results

Habitats in the BSA including Jeffrey pine forest, annual grasslands, montane riparian, wet meadow and riparian wetlands provide potential nesting habitat for migratory birds and raptors.

4.3.2.2. Potential Impacts

Construction activities during the nesting season for migratory birds and raptors (typically March 1 through August 31) could disrupt nesting activities and adversely affect migratory birds and/or raptors using habitat in or near the work area (typically within 100 feet for migratory birds and 250 feet for raptors). Impacts would be the same as those described in Section 4.2.2.2 for special-status birds. Implementation of Avoidance and Minimization Measures outlined in Chapter 5 will ensure the proposed project results in minimal adverse effects on nesting migratory birds and raptors.

4.3.2.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects on nesting migratory birds and raptors. No other past, present, or reasonably foreseeable projects have been identified in this reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts to nesting migratory birds and raptors.

With implementation of the avoidance and minimization measures, the proposed project would not result in cumulatively considerable adverse effects on nesting migratory birds or raptors.

4.3.3. Riparian Habitat

4.3.3.1. Survey Results

The BSA contains approximately 0.44 acre of riparian habitat along the Middle Fork Feather River. Stands of arroyo willow and red willow dominate the shrub layer in these areas. The dominant herbaceous species include reed canary grass and torrent sedge.

4.3.3.2. Potential Impacts

Montane riparian habitat along the banks of the Middle Fork Feather River would be removed prior to installation of the new bridge and modification of the roadway approaches. Approximately 0.0045 acres of riparian habitat would be removed to

accommodate the new bridge abutments, retaining walls, and approach fills for the realigned road.

Some riparian habitat would be expected to re-establish along the banks of the creek after construction, and Conservation Measure #3 would require the restoration of disturbed areas in the BSA. The proposed project would remove approximately 0.0045 acre of montane riparian habitat. Due to the abundance of riparian habitat available and the minimal amount of riparian habitat removed, impacts on riparian habitat would be minimal. No compensatory mitigation will be required.

4.3.3.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects on riparian habitat. No other past, present, or reasonably foreseeable projects have been identified in this reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts to riparian habitat.

4.3.4. Invasive Plants

4.3.4.1. Survey Results

Field surveys identified one species of invasive plant (cheatgrass) within the annual grassland and Jeffrey pine habitats within the BSA.

4.3.4.2. Potential Impacts

Construction activities could introduce invasive plants into the BSA from seeds or plant material on equipment, if the equipment is not washed prior to entering the BSA. Ground disturbance could encourage the spread of cheatgrass already present in the BSA by creating conditions that are more favorable for invasive plants than native plants. Conservation Measure #3 would require restoration of disturbed areas of the BSA, which would help prevent invasive plants from establishing in those areas, and Avoidance and Minimization Measures described in Chapter 5 would reduce the potential for invasive plants to be introduced into the BSA or spread into disturbed areas.

4.3.4.3. Cumulative Effects

Based on the project design and with implementation of Caltrans BMPs, conservation measures, and avoidance and minimization measures as required, the proposed project would not result in cumulatively considerable adverse effects from invasive plants. No other past, present, or reasonably foreseeable projects have been identified in this

reach of Middle Fork Feather River, thus the proposed project is not expected to result in cumulative impacts from invasive plants.

Chapter 5. Results: Biological Resources, Discussion of Impacts and Mitigation

The following avoidance and minimization measures shall be implemented to avoid or minimize the potential adverse impacts discussed in Chapter 4.

5.1. Avoidance and Minimization Measure #1 – Worker Environmental Awareness Training

Prior to construction, all workers will receive Worker Environmental Awareness Training to be conducted by a qualified biologist. The training will include, but is not limited to, identification of relevant biological resources (e.g., special-status species that may be found in the BSA) and an overview of conservation measures and avoidance and mitigation measures that are required during construction activities. Handouts summarizing information presented during the training and relevant contact information will be provided to the workers.

5.2. Avoidance and Minimization Measure #2 – Pre-Construction Surveys

If construction activities are scheduled between March 1 and August 31, a qualified biologist shall conduct a pre-construction survey within 500 feet upstream and downstream of the work area (e.g., staging area, bridge construction, bridge removal) to locate in-stream foothill yellow-legged frog egg masses.

If a foothill yellow-legged frog egg mass is found, the biologist shall flag the site and determine if construction activities can avoid impacting the egg mass. If the egg mass cannot be avoided, it will be relocated to a suitable location outside of the work area by a qualified biologist.

Special-status and non-special status passerine surveys shall be conducted within 100 feet of the work area, and special-status and non special-status raptor surveys within 250 feet of the work area. The surveys should be conducted no more than 15 days prior to the initiation of construction and should be repeated if work stops for more than one week during the breeding and rearing period for these species.

If an active nest is found, the biologist in consultation with CDFW shall identify appropriate conservation measures to protect the species. These measures may

include, but are not limited to establishing a construction-free buffer zone around the breeding site, biological monitoring of the breeding site, and delaying construction activities in the vicinity of the breeding site until the young have dispersed.

A pre-construction survey for roosting bats shall be conducted at the existing bridge and within the Jeffrey pine habitat (large trees) no more than 15 days prior to the initiation of construction. The biologist will look for individuals, guano, staining and vocalization. If bats are detected in large trees or under the bridge, the bats shall be passively excluded/evicted from the roost area for two consecutive days via the partial dismantlement of the trees and/or bridge. If a maternity colony is detected then a construction-free buffer will be established and remain in place until it has been determined by a qualified biologist that the nursery is no longer active (~July 31).

5.3. Avoidance and Minimization Measure #3– Avoidance During Construction

If foothill yellow-legged frog is encountered during construction, activities in the vicinity shall cease until one or more of the following occur:

- The animal leaves the work area.
- Appropriate corrective measures have been implemented (e.g., relocation of the animal to appropriate habitat identified by a qualified biologist, outside of the BSA).
- It has been determined that the animal will not be harmed. Any trapped, injured, or killed foothill yellow-legged frog shall be reported immediately to the CDFW.

5.4. Avoidance and Minimization Measure #4 – Conservation and Restoration of Habitat

Vegetation removal, grading, and other ground-disturbing construction activities shall be limited to the smallest area necessary. Exclusionary fencing shall be installed along the boundaries of the riparian wetlands along the Middle Fork Feather River within the project footprint, and along the intermittent streams within the BSA. These areas will be marked as environmentally sensitive areas to ensure all construction activities avoid potential disturbance to the habitats. All project access, parking, and staging will be limited to existing roadways, previously disturbed areas, and parking areas.

5.5. Avoidance and Minimization Measure #5 – Prevention and Spread of Invasive Species

All equipment used for off-road construction activities will be weed-free prior to entering the BSA. If project implementation calls for mulches or fill, they will be weed free. Any seed mixes or other vegetative material used for re-vegetation of disturbed areas will consist of locally adapted native plant materials to the extent practicable.

5.6. Avoidance and Minimization Measure #6 – Water Pollution Prevention and Erosion and Sediment Control

Construction activities that increase the erosion potential in the project BSA shall be restricted to the dry season (June 1 - October 31) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to surface water features in the project BSA. If these activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until permanent erosion control structures are in place. The SWPPP will identify specific BMPs to implement.

5.7. Avoidance and Minimization Measure #7 – Avoidance and Minimization of Impacts to "Waters of the United States"

In addition to implementation of the Conservation Measures outlined in Chapter 1, the following measures shall be implemented to avoid or minimize the potential for project-related impacts on "waters of the United States":

- To the extent practicable, the discharge of dredged or fill material into "waters of the United States," including wetlands shall be avoided (this also includes waters not subject to Corps jurisdiction, but subject to RWQCB jurisdiction). However, complete avoidance is not feasible due to the need for the placement of new piers, thus the following measures shall be implemented:

- Prior to any discharge of dredged or fill material into "waters of the United States," including wetlands, authorization under a Nationwide Permit shall be obtained from the Corps. For any features determined not to be subject to Corps jurisdiction during the verification process, authorization to discharge shall be obtained from the RWQCB. For fill requiring a Corps permit, water

quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.

- Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW; and, if required, a streambed alteration agreement shall be obtained from CDFW.

- Construction activities that will affect "water of the United States" shall be conducted during the dry season to minimize erosion.

- Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g., silt fences, straw bales).

- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., Corps, RWQCB, and CDFW) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented.

Chapter 6. Permits Required

6.1. Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Discharge of dredged or fill material into "waters," including jurisdictional wetlands, is regulated by the USACE under Section 404 of the CWA (33 United States Code (USC) 1251-1376). USACE regulations implementing Section 404 define waters to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3; 40 CFR 230.3). To comply with the Section 404 policy, there must be no net loss of wetlands and discharge into wetlands must be avoided and minimized to the extent practicable. For unavoidable impacts, compensatory mitigation is required to replace the loss of wetland functions in the watershed.

6.1.1. Section 404 Nationwide Permit

The proposed project would comply with the terms of Nationwide Permit number 14 (Linear Transportation Projects). According to the current Nationwide Permit (2012-2017) notification requirements, "the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands." Although the proposed project would affect less than 0.1 acre of waters of the United States, some of the discharge of fill would be into riparian wetlands, a special aquatic site, and the County will be required to submit a pre-construction notification to obtain coverage under the Nationwide Permit.

6.1.2. Section 401 Clean Water Act Water Quality Certification

The proposed project would comply with Section 401 of the Clean Water Act, which requires that a project proponent obtain a water quality certification from the State for projects resulting in the discharge of material into waters of the United States and requiring a federal permit. The County will submit an application for certification to the Central Valley Regional Water Quality Control Board.

6.2. Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Most of the birds found in the project BSA are protected under the MBTA. Thus, project construction has the potential to directly take nests, eggs, young, or individuals of protected species. Further, construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to the abandonment of nests, a violation of the MBTA.

Potential nesting habitat for migratory birds occurs throughout the BSA, therefore, vegetation removal during the nesting season has the potential to result in adverse effects on migratory birds. With implementation of avoidance and minimization measures presented in Chapter 5, the proposed project will comply with the MBTA.

6.3. Executive Orders

6.3.1. Executive Order 11990 (Wetlands)

Executive Order 11990 is an overall wetlands policy for all agencies managing federal lands, sponsoring federal projects, or providing federal funds to state or local projects. It requires federal agencies to follow avoidance, mitigation, and preservation procedures with public input before proposing new construction in wetlands.

The proposed project has been designed to minimize impacts to wetlands. Following project construction, the area will be restored to pre-construction contours and disturbed areas will be re-vegetated. In addition, with implementation of Avoidance and Minimization Measure # 7 in Chapter 5, the proposed project will comply with Executive Order 11990.

6.3.2. Executive Order 13112 (Invasive Species)

Executive Order 13112 directs federal agencies to use relevant programs and authorities to do the following:

- Prevent the introduction of invasive species.
- Detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner.

- Monitor invasive species populations accurately and reliably.
- Provide for restoration of native species and habitat conditions in ecosystems that have been invaded.
- Conduct research on invasive species and develop technologies to prevent their introduction, and provide for environmentally sound control of invasive species.
- Promote public education on invasive species and the means to address them.
- Not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

With implementation of Avoidance and Minimization Measure #5 found in Chapter 5, the proposed project will comply with Executive Order 13112 – Invasive Species.

6.3.3. Executive Order 11988 (Floodplain Management)

Executive Order 11988 requires federal agencies to avoid the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and avoid direct and indirect support of floodplain development.

The proposed project will improve hydraulic conditions within the floodplain of the proposed project area.

6.4. California Fish and Game Code

6.4.1. Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFW as providing a fish or wildlife resource. Under Section 1602, a discretionary Lake or Streambed Alteration Agreement must be obtained from the CDFW prior to the initiation of construction activities that will affect drainages under CDFW jurisdiction.

Any potential impacts to the bed, bank or riparian zone of the Middle Fork Feather River will require a Section 1602 Streambed Alteration Agreement from the CDFW.

6.4.2. Birds of Prey

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of 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 the code or any regulation adopted pursuant thereto.

No stick nests were observed within the project BSA; however, potential nesting habitat for birds of prey occurs throughout much of the BSA. With implementation of avoidance and minimization measures presented in Chapter 5, the proposed project will comply with California Fish and Game Code Section 3503.5.

6.4.3. Migratory Birds

Migratory birds are also protected under the California Fish and Game Code Section 3513, which states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential nesting habitat for migratory birds occurs throughout the BSA, therefore, vegetation removal during the nesting season has the potential to result in adverse effects on migratory birds. With implementation of avoidance and minimization measures presented in Chapter 5, the project will comply with California Fish and Game Code Section 3513.

6.4.4. Fully Protected Species

California statutes also accord “fully protected” status to a number of specifically identified birds, mammals, reptiles, amphibians, and fish. These species cannot be “taken,” even with an incidental take permit (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, and 5515).

With implementation of the avoidance and minimization measures presented in Chapter 5, the proposed project would not affect the bald eagle, a fully protected species.

Chapter 7. References

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Appendix A USFWS Species List, CNDDB Query, CNPS Query

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 130923111019

Database Last Updated: September 18, 2011

Quad Lists

Listed Species

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Candidate Species

Amphibians

Rana muscosa
mountain yellow-legged frog (C)

Mammals

Martes pennanti
fisher (C)

Quads Containing Listed, Proposed or Candidate Species:

BLAIRSDEN (588D)

County Lists

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)
S

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)
S

Pacifastacus fortis
Shasta crayfish (E)
S

Pseudocopaeodes eunus obscurus
Carson wandering skipper (E)
S

Fish

Hypomesus transpacificus

delta smelt (T)
S

Oncorhynchus (=Salmo) clarki henshawi
Lahontan cutthroat trout (T)
S

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
S

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)
S

Amphibians

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)
S

Rana sierrae
Mountain yellow legged frog (PX)
S

Plants

Orcuttia tenuis
Critical habitat, slender Orcutt grass (X)
slender Orcutt grass (T)
S

Candidate Species

Amphibians

Rana muscosa
mountain yellow-legged frog (C)
S

Mammals

Martes pennanti
fisher (C)
S

Plants

Ivesia webberi
Webber's ivesia (C)
S

Key:

(E) *Endangered* - Listed as being in danger of extinction.
(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
Critical Habitat - Area essential to the conservation of a species.
(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
(C) *Candidate* - Candidate to become a proposed species.
(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our Protocol and Recovery Permits pages.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

> Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem.

However, we recommend that you get an updated list every 90 days. That would be December 22, 2013.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: County is (Plumas) and Quad is (Blairsden (3912075) or Mt. Ingalls (3912086) or Grizzly Valley (3912085) or Crocker Mtn. (3912084) or Portola (3912074) or Johnsville (3912076) or Gold Lake (3912066) or Clio (3912065) or Calpine (3912064))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Astragalus lentiformis lens-pod milk-vetch	PDFAB0F4P0	None	None	G2	S2	1B.2
Botrychium crenulatum scalloped moonwort	PPOPH010L0	None	None	G3	S2	2B.2
Botrychium minganense mingan moonwort	PPOPH010R0	None	None	G4G5	S2	2B.2
Bruchia bolanderi Bolander's bruchia	NBMUS13010	None	None	G3	S3?	2B.2
Carex lasiocarpa woolly-fruited sedge	PMCYP03720	None	None	G5	S2	2B.3
Carex sheldonii Sheldon's sedge	PMCYP03CE0	None	None	G4	S3	2B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2S3	SSC
Cymopterus globosus globose cymopterus	PDAPI0U0E0	None	None	G3G4	S1S2.2	2B.2
Didymodon norrisii Norris' beard moss	NBMUS2C0H0	None	None	G3G4	S3S4	2B.2
Empidonax traillii willow flycatcher	ABPAE33040	None	Endangered	G5	S1S2	
Euderma maculatum spotted bat	AMACC07010	None	None	G4	S2S3	SSC
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S3	WL
Grus canadensis tabida greater sandhill crane	ABNMK01014	None	Threatened	G5T4	S2	FP
Gulo gulo California wolverine	AMAJF03010	Candidate	Threatened	G4	S1	FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S2	FP
Ivesia aperta var. aperta Sierra Valley ivesia	PDROS0X011	None	None	G2T2	S2.2	1B.2
Ivesia sericoleuca Plumas ivesia	PDROS0X0K0	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Juncus luciensis Santa Lucia dwarf rush	PMJUN013J0	None	None	G2G3	S2S3	1B.2
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Lasiurus blossevillii western red bat	AMACC05060	None	None	G5	S3?	SSC
Lomatium roseanum adobe lomatium	PDAPI1B2G0	None	None	G2G3	S2	1B.2
Lupinus dalesiae Quincy lupine	PDFAB2B1A0	None	None	G3	S3.2	4.2
Martes americana sierrae Sierra marten	AMAJF01014	None	None	G5T3T4	S3S4	
Martes pennanti fisher - West Coast DPS	AMAJF01021	Candidate	None	G5T2T3Q	S2S3	SSC
Meesia uliginosa broad-nerved hump moss	NBMUS4L030	None	None	G4	S3	2B.2
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S4?	
Myotis thysanodes fringed myotis	AMACC01090	None	None	G4	S4	
Myotis volans long-legged myotis	AMACC01110	None	None	G5	S4?	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4?	
Northern Vernal Pool Northern Vernal Pool	CTT44100CA	None	None	G2	S2.1	
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S3	WL
Pyrrocoma lucida sticky pyrrocoma	PDASTDT0E0	None	None	G3	S3	1B.2
Schoenoplectus subterminalis water bulrush	PMCYP0Q1G0	None	None	G4G5	S2S3	2B.3
Scutellaria galericulata marsh skullcap	PDLAM1U0J0	None	None	G5	S2	2B.2
Stachys pilosa hairy marsh hedge-nettle	PDLAM1X1A0	None	None	G5	S2.3	2B.3
Strix nebulosa great gray owl	ABNSB12040	None	Endangered	G5	S1	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S4	SSC
Trichodon cylindricus cylindrical trichodon	NBMUS7N020	None	None	G4G5	S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Utricularia intermedia	PDLNT020A0	None	None	G5	S3	2B.2
flat-leaved bladderwort						
Vulpes vulpes necator	AMAJA03012	None	Threatened	G5T1T2	S1	
Sierra Nevada red fox						

Record Count: 42

CNPS Inventory of Rare and Endangered Plants

Status: Plant Press Manager window with 23 items - Mon, Sep. 23, 2013 13:31 ET c

Reformat list as: Standard List - with Plant Press controls

ECOLOGICAL REPORT

scientific	family	life form	blooming	communities	elevation	CNPS
Astragalus lentiformis	Fabaceae	perennial herb	May-Jul	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs)/volcanic sandy	1460 - 1910 meters	List 1B.2
Botrychium crenulatum	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	•Bogs and fens (BgFns) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Marshes and swamps (MshSw) (freshwater) •Upper montane coniferous forest (UCFrs)	1268 - 3280 meters	List 2B.2
Botrychium minganense	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	•Bogs and fens (BgFns) •Lower montane coniferous forest (LCFrs) •Upper montane coniferous forest (UCFrs)/Mesic	1455 - 2105 meters	List 2B.2
Bruchia bolanderi	Bruchiaceae	moss	•Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Upper montane coniferous forest (UCFrs)/damp soil	1700 - 2800 meters	List 2B.2	
Carex lasiocarpa	Cyperaceae	perennial rhizomatous herb	Jun-Jul	•Bogs and fens (BgFns) •Marshes and swamps (MshSw) (freshwater, lake margins)	1700 - 2100 meters	List 2B.3
Carex sheldonii	Cyperaceae	perennial rhizomatous herb	May-Aug	•Lower montane coniferous forest (LCFrs)(mesic) •Marshes and swamps (MshSw) (freshwater) •Riparian scrub (RpScr)	1200 - 2012 meters	List 2B.2
Cymopterus globosus	Apiaceae	perennial herb	Mar-Jun	•Great Basin scrub (GBScr)/sandy, open flats	1200 - 2135 meters	List 2B.2
Didymodon norrisii	Pottiaceae	moss	•Cismontane woodland (CmWld) •Lower montane	600 - 1973 meters	List 2B.2	

			coniferous forest (LCFrs)/intermittently mesic, rock			
Hemieva ranunculifolia	Saxifragaceae	perennial herb	Jun-Aug	•Meadows and seeps (Medws) •Upper montane coniferous forest (UCFrs)/mesic, rocky, granitic	1500 - 2500 meters	List 2B.2
Ivesia aperta var. aperta	Rosaceae	perennial herb	Jun-Sep	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Pinyon and juniper woodland (PJWld) •Vernal pools (VnPls)/vernally mesic, usually volcanic	1480 - 2300 meters	List 1B.2
Ivesia sericoleuca	Rosaceae	perennial herb	May-Oct	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Vernal pools (VnPls)/vernally mesic, usually volcanic	1310 - 2200 meters	List 1B.2
Juncus luciensis	Juncaceae	annual herb	Apr-Jul	•Chaparral (Chprl) •Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Vernal pools (VnPls)	300 - 2040 meters	List 1B.2
Kobresia myosuroides	Cyperaceae	perennial rhizomatous herb	(Jun),Aug Months in parentheses are uncommon	•Alpine boulder and rock field (AlpBR)(mesic) •Meadows and seeps (Medws) (carbonate) •Subalpine coniferous forest (SCFrs)	1490 - 3245 meters	List 2B.2
Lomatium roseanum	Apiaceae	perennial herb	May-Jul	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs)/openings, gravelly or rocky	1463 - 2255 meters	List 1B.2
Meesia uliginosa	Meesiaceae	moss	Oct	•Bogs and fens (BgFns) •Meadows and seeps (Medws) •Subalpine	1210 - 2804 meters	List 2B.2

				coniferous forest (SCFrs) •Upper montane coniferous forest (UCFrs)/damp soil		
Polygonum polygaloides ssp. esotericum	Polygonaceae	annual herb	May-Sep	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Vernal pools (VnPls)/mesic	885 - 1690 meters	List 1B.1
Polystichum lonchitis	Dryopteridaceae	perennial rhizomatous herb	Jun-Sep	•Subalpine coniferous forest (SCFrs) •Upper montane coniferous forest (UCFrs)/granitic or carbonate	1800 - 2600 meters	List 3
Pyrrocoma lucida	Asteraceae	perennial herb	Jul-Oct	•Great Basin scrub (GBScr) •Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws)/alkaline clay	700 - 1950 meters	List 1B.2
Schoenoplectus subterminalis	Cyperaceae	perennial rhizomatous herb aquatic	Jun-Aug(Sep). Months in parentheses are uncommon	•Bogs and fens (BgFns) •Marshes and swamps (MshSw) (montane lake margins)	750 - 2250 meters	List 2B.3
Scutellaria galericulata	Lamiaceae	perennial rhizomatous herb	Jun-Sep	•Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) (mesic) •Marshes and swamps (MshSw)	0 - 2100 meters	List 2B.2
Stachys pilosa	Lamiaceae	perennial rhizomatous herb	Jun-Aug	•Great Basin scrub (GBScr) (mesic) •Meadows and seeps (Medws)	1200 - 1770 meters	List 2B.3
Trichodon cylindricus	Ditrichaceae	moss	•Broadleafed upland forest (BUFrs) •Meadows and seeps (Medws) •Upper montane coniferous forest (UCFrs)/sandy, exposed soil, roadbanks	50 - 2002 meters	List 2B.2	
Utricularia intermedia	Lentibulariaceae	perennial stoloniferous herb aquatic carnivorous	Jul-Aug	•Bogs and fens (BgFns) •Meadows and seeps (Medws) (mesic) •Marshes and	1200 - 2700 meters	List 2B.2

swamps (MshSw)
(lake margins)
•Vernal pools
(VnPls)

Appendix B Review of Regionally Occurring Special-Status Species

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
		Plants	
Lens-pod milk-vetch *Astragalus lentiformis*	—/—/1B.2	Great Basin scrub, Lower montane coniferous forest/volcanic, sandy; Elevation: 4788.8 - 6264.8 feet; Bloom Period: May-Jul	Absent. Great Basic scrub habitat is not present. Species was not found during botanical surveys.
Scalloped moonwort *Botrychium crenulatum*	—/—/2.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps(freshwater), Upper montane coniferous forest; Elevation: 4159.04 - 10758.4 feet; Bloom Period: Jun-Sep	Absent. Marsh habitat is not present. Species was not found during botanical surveys.
Mingan moonwort *Botrychium minganense*	—/—/2.2	Bogs and fens, Lower montane coniferous forest, Upper montane coniferous forest/Mesic; Elevation: 4772.4 - 6904.4 feet; Bloom Period: Jul-Sep	Absent. Fen habitat is not present. Species was not found during botanical surveys.
Bolander's bruchia *Bruchia bolanderi*	—/—/2.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest/damp soil; Elevation: 5576 - 9184 feet; Bloom Period: Not applicable	Absent. Meadow habitat is not present. Species was not found during botanical surveys.
Woolly-fruited sedge *Carex lasiocarpa*	—/—/2.3	Bogs and fens, Marshes and swamps(freshwater, lake margins); Elevation: 5904 - 6888 feet; Bloom Period: Jun-Jul	Absent. Marsh habitat is not present. Species was not found during botanical surveys.
Sheldon's sedge *Carex sheldonii*	—/—/2.2	Lower montane coniferous forest(mesic), Marshes and swamps(freshwater), Riparian scrub; Elevation: 3936 - 6599.36 feet; Bloom Period: May-Aug	Absent. Riparian scrub habitat is present. Species was not found during botanical surveys.
Globose cymopterus *Cymopterus globosus*	—/—/2.2	Great Basin scrub/sandy, open flats; Elevation: 3936 - 7002.8 feet; Bloom Period: Mar-Jun	Absent. Great Basic scrub habitat is not present. Species was not found during botanical surveys.
Norris' beard moss *Didymodon norrisii*	—/—/2.2	Cismontane woodland, Lower montane coniferous forest/intermittently mesic, rock; Elevation: 1968 - 6471.44 feet; Bloom Period: Not applicable	Absent. Lower montane coniferous forest is not present. Species was not found during botanical surveys.
Buttercup-leaf suksdorfia *Hemieva ranunculifolia*	—/—/2	Meadows and seeps, Upper montane coniferous forest/mesic, rocky, granitic; Elevation: 4920 - 8200 feet; Bloom Period: Jun-Aug	Absent. Meadow habitat is not present. Species was not found during botanical surveys.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Sierra Valley ivesia *Ivesia aperta* var. *aperta*	—/—/1B.2	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland, Vernal pools/vernally mesic, usually volcanic; Elevation: 4854.4 - 7544 feet; Bloom Period: Jun-Sep	Absent. Lower montane coniferous forest habitat is present. Species was not found during botanical surveys.
Plumas ivesia *Ivesia sericoleuca*	—/—/1B.2	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools/vernally mesic, usually volcanic; Elevation: 4296.8 - 7216 feet; Bloom Period: May-Oct	Absent. Lower montane coniferous forest habitat is present. Species was not found during botanical surveys.
Santa Lucia dwarf rush *Juncus luciensis*	—/—/1B.2	Chaparral, Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools; Elevation: 984 - 6691.2 feet; Bloom Period: Apr-Jul	Absent. Lower montane coniferous forest habitat is present. Species was not found during botanical surveys.
Adobe lomatium *Lomatium roseanum*	—/—/1B.2	Great Basin scrub, Lower montane coniferous forest/openings, gravelly or rocky; Elevation: 4798.64 - 7396.4 feet; Bloom Period: Jun-Jul	Absent. Gravelly habitat is not present. Species was not found during botanical surveys.
Broad-nerved hump moss *Meesia uliginosa*	—/—/2.2	Bogs and fens, Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest/damp soil; Elevation: 4264 - 9197.12 feet; Bloom Period: Oct	Absent. Mesic habitat is not present. Species was not found during botanical surveys.
Slender Orcutt grass *Orcuttia tenuis*	T/E/1B.1	Vernal pools; Elevation: 600-3500 feet; Bloom Period: May-October	Absent: Vernal pool habitat is not present. Species was not found during botanical surveys.
Tall alpine-aster *Oreostemma elatum*	—/—/1B.2	Bogs and fens, Meadows and seeps, Upper montane coniferous forest/mesic; Elevation: 3296.4 - 6888 feet; Bloom Period: Jun-Aug	Absent. Mesic habitat is not present. Species was not found during botanical surveys.
Modoc County knotweed *Polygonum polygaloides ssp. esotericum*	—/—/1B.1	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps, Vernal pools/mesic; Elevation: 2902.8 - 5543.2 feet; Bloom Period: May-Sep	Absent. Lower montane coniferous forest habitat is present. Species was not found during botanical surveys.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Northern holly fern *Polystichum lonchitis*	—/—/3	Subalpine coniferous forest, Upper montane coniferous forest/granitic or carbonate; Elevation: 5904 - 8528 feet; Bloom Period: Jun-Sep	Absent. Granitic habitat is not present. Species was not found during botanical surveys.
Sticky pyrrocoma *Pyrrocoma lucida*	—/—/1B.2	Great Basin scrub, Lower montane coniferous forest, Meadows and seeps/alkaline clay; Elevation: 2296 - 6396 feet; Bloom Period: Jul-Oct	Absent. Lower montane coniferous forest habitat is present. Species was not found during botanical surveys..
Water bulrush *Schoenoplectus subterminalis*	—/—/2.3	Bogs and fens, Marshes and swamps(montane lake margins); Elevation: 2460 - 7380 feet; Bloom Period: Jun-Aug	Absent. Marsh habitat is not present. Species was not found during botanical surveys.
Marsh skullcap *Scutellaria galericulata*	—/—/2.2	Lower montane coniferous forest, Meadows and seeps (mesic), Marshes and swamps; Elevation: 0 - 6888 feet; Bloom Period: Jun-Sep	Absent. Marsh habitat is not present. Species was not found during botanical surveys.
Hairy marsh hedge-nettle *Stachys pilosa*	—/—/2.3	Great Basin scrub (mesic), Meadows and seeps; Elevation: 3936 - 5805.6 feet; Bloom Period: Jun-Aug	Absent. Meadow habitat is not present. Species was not found during botanical surveys.
Slender-leaved pondweed *Stuckenia filiformis*	—/—/2.2	Marshes and swamps(assorted shallow freshwater); Elevation: 984 - 7052 feet; Bloom Period: May-Jul	Absent. Marsh habitat is not present. Species was not found during botanical surveys.
Cylindrical trichodon *Trichodon cylindricus*	—/—/2.2	Broadleafed upland forest, Meadows and seeps, Upper montane coniferous forest/sandy, exposed soil, roadbanks; Elevation: 164 - 6566.56 feet; Bloom Period:	Absent. Meadow habitat is not present. Species was not found during botanical surveys.
Flat-leaved bladderwort *Utricularia intermedia*	—/—/2.2	Bogs and fens, Meadows and seeps(mesic), Marshes and swamps(lake margins); Elevation: 3936 - 8856 feet; Bloom Period: Jul-Aug	Absent. Marsh habitat is not present. Species was not found during botanical surveys.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
		Fish	
Delta smelt *Hypomesus transpacificus*	T/T/—	Estuarine habitat and tidal river channels and sloughs of the Sacramento-San Joaquin Delta.	Absent. This species is limited to the San Francisco Bay Delta and lower reaches of delta tributaries. BSA is outside of species range.
Central Valley spring-run chinook salmon *Oncorhynchus tshawytscha*	T/T/—	Spawn and rear in main-stem Sacramento River and suitable perennial tributaries. Require cool year-round water temperatures and deep pools for over-summering habitat. Spawn in riffles with gravel and cobble substrate.	Absent. The Middle Fork Feather River within the BSA is upstream of Oroville Dam, a known fish barrier.
Winter-run chinook salmon, Sacramento River *Oncorhynchus tshawytscha*	E/E/—	Spawn and rear in main-stem Sacramento River. Require cool year-round water temperatures, since spawning occurs during the summer. Requires deep pools and riffles, and clean gravel and cobble substrate to spawn.	Absent. The Middle Fork Feather River within the BSA is upstream of Oroville Dam, a known fish barrier.
		Amphibians	
Foothill yellow-legged frog *Rana boylii*	—/SSC/—	Cool, fast moving rocky streams in a variety of habitats.	Habitat present. Suitable habitat is present within the Middle Fork Feather River within the BSA.
California red-legged frog *Rana draytonii*	T/SSC/—	Lowlands and foothills in or near permanent or late season sources of deep water with dense, shrubby, or emergent vegetation up to 5,000 feet.	Absent. BSA is outside of current and historic range of species (USFWS 2002).
Sierra Nevada yellow-legged frog *Rana sierrae*	C/C,SSC/—	Breeds in slow-moving permanent waters of lakes, ponds, meadow streams, isolated pools, and open stream banks with gentle slopes.	Absent. Suitable tadpole overwintering habitat (permanent, slow-moving water that does not freeze to the bottom) and breeding habitat is absent from the BSA.
Northern leopard frog *Lithobates pipiens*	—/SSC/—	Breeds in many habitat types in slow-moving permanent water with abundant submergent and emergent aquatic vegetation.	Absent. The Middle Fork Feather River does not provide suitable breeding habitat (i.e., adequate submergent and emergent vegetative cover in association with slow-moving water) for this species.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
		Reptiles	
Western pond turtle *Emys marmorata*	—/SSC/—	Permanent or nearly permanent water in a variety of habitats.	Absent. Species is not known to occur east of the Sierra Nevada.
		Birds	
Greater sandhill crane *Grus canadensis tabida*	—/T,FP/—	Nests in open, grassy uplands of marshes, swamps, and meadows.	Absent. No suitable nesting habitat within the BSA. Wet meadows to the west do not provide suitable nesting habitat.
Redhead *Aythya americana*	—/SSC/—	Typically nests in tall emergent vegetation with nearby open water. Prefers large water bodies with extensive area of emergent vegetation.	Absent. Suitable nesting habitat (i.e., emergent vegetation fringing expansive open water) is absent from BSA.
Harlequin duck *Histrionicus histrionicus*	—/SSC/—	Breeds along shores of swift, shallow rivers, winters in turbulent waters along the rocky outer coast. Usually nests near water, but may nest on ground, in riparian vegetation, on woody debris, or other suitable location.	Absent. Suitable nesting habitat (i.e., dense vegetative cover on steep banks, in stream rocks, and islands) is absent from the BSA.
Northern goshawk *Accipiter gentilis*	—/SSC/—	Breeds in dense, mature conifer and deciduous forests associated with mature coniferous forests, interspersed with meadows, other openings and riparian areas; nesting habitat includes north-facing slopes near water.	Absent. Suitable mature coniferous and deciduous forests are absent from the BSA.
American peregrine falcon *Falco peregrinus anatum*	D/D,FP/—	Forages in many habitats; requires rocky ledges, cliffs, and similar structures for nesting.	Absent. Suitable ledge, cliff or similar nesting substrate absent from BSA.
Bald eagle *Haliaeetus leucocephalus*	D/E,FP/—	Requires large bodies of water, or free-flowing rivers with abundant fish and adjacent snags and large trees for perching and nesting.	Absent. No large nest platforms were observed within or near the BSA during site visits. The nearest CNDDB record for this species is located approximately 10 miles northeast of the BSA. Foraging habitat is present within the BSA.
Northern harrier *Circus cyaneus*	—/SSC/—	Forages in marshes, grasslands and ruderal habitats; nests in extensive marshes, grassland, and wet fields from sea-level up to 3,700 feet.	Absent. BSA is located above the elevation range for this species.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Short-eared owl *Asio flammeus*	—/SSC/—	Breeds in dense vegetation in open grassland, marshes, and wet fields.	Absent. Suitable nesting habitat is absent from the BSA.
Long-eared owl *Asio otus*	—/SSC/—	Dense riparian forest, live oak thickets, woodlands and forested habitats near meadow edges; also found in dense conifer stands at higher elevations.	Absent. Suitable nesting habitat is absent from the BSA.
California spotted owl *Strix occidentalis occidentalis*	—/SSC/—	Found in mature, multi-layered forest stands. Typically nests in cavity of tree or snag, broken top of large tree, in clumps of "witches brooms", mistletoe, suitable abandoned nest platforms, and crevices.	Absent. Suitable nesting habitat (i.e., mature, multilayered forest stands) is absent from BSA.
Great gray owl *Strix nebulosa*	—/E/—	Old-growth red fir, mixed conifer, or lodgepole pine habitats near wet meadows and at elevations 4,500–7,500 feet.	Absent. Suitable nesting habitat for species (i.e., mature, coniferous forests) is absent from BSA.
Bank swallow *Riparia riparia*	—/T/—	Colonial nester on vertical banks of fine-textured soils near water. Nest cavities excavated in vertical banks of loose, often sandy, soils.	Absent. Suitable nesting habitat (i.e., vertical banks of fine-textured soils) is absent from BSA.
Purple martin *Progne subis*	—/SSC/—	Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands.	Absent. Suitable nesting habitat (i.e., snags or hollow trees) is absent from BSA.
Black swift *Cypseloides niger*	—/SSC/—	Nests in moist crevice or cave or sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons; forages widely over many habitats.	Absent. Suitable nesting habitat (i.e., moist crevices, caves, sea cliffs, and waterfalls) is absent from BSA.
Vaux's swift *Chaetura vauxi*	—/SSC/—	Nests in redwood, Douglas-fir, and occasionally other coniferous forests. Nest typically built on the vertical inner wall of a large, hollow tree or snag, especially tall stubs charred by fire.	Absent. Suitable nesting habitat for species (snags or hollow trees) is absent from BSA.
Olive-sided flycatcher *Contopus cooperi*	—/SSC/—	Typically nests along horizontal limb of large trees in mixed coniferous forests.	Habitat present. Jeffery pine forest provides nesting habitat within and adjacent to the BSA. No known occurrences within 5 miles.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Yellow warbler *Dendroica petechia brewsteri*	—/SSC/—	Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods.	Habitat present. Suitable nesting habitat for species is present along riparian areas of the Middle Fork Feather River within BSA. No known occurrences within 5 miles.
Little willow flycatcher *Empidonax traillii brewsteri*	—/E/—	Nests in willows and other shrubs within and near wet meadows and seeps. Typically nesting habitat is in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	Habitat Present. Suitable low-quality nesting habitat is present as shrubs and small isolated trees adjacent or near wet meadows in the western portion of the BSA. The nearest CNDDB record for this species is located approximately 4 miles southeast of the BSA.
Yellow-breasted chat *Icteria virens*	—/SSC/—	Breeds in riparian habitats having dense understory vegetation, such as willow and blackberry.	Habitat present. Suitable nesting habitat for species is present along riparian areas of the Middle Fork Feather River within the BSA. No known occurrences within 5 miles.
Loggerhead shrike *Lanius ludovicianus*	—/SSC/—	Nests in shrubs and trees in grasslands, scrubs, woodlands, and other open habitats of lowlands and foothills throughout California.	Absent. Not known to occur in this portion of the Sierra Nevada.
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	—/SSC/—	Breeds in emergent vegetation along shoreline of lakes, wetlands and intertidal zones throughout northern California.	Absent. No suitable nesting habitat within the BSA.
		Mammals	
Sierra Nevada mountain beaver *Aplodontia rufa californica*	—/SSC/—	Dense, riparian deciduous and open brushy stages of most forest types.	Absent. No suitable breeding or rearing habitat present within the BSA.
California wolverine *Gulo gulo*	C/T,FP/—	A variety of habitats within the Sierra Nevada ranging from 4,000-7,300 feet in elevation. Dens in higher elevation forests and open terrain near or above timberline in the Cascades and Sierra Nevada mountains. Prefers areas with low human disturbance.	Absent. Suitable high elevation denning habitat absent from BSA.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Pacific fisher *Martes pennanti (pacifica)* DPS	C/SSC/—	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.	Absent. Suitable denning habitat containing component of old-growth or mature coniferous trees absent from BSA.
American badger *Taxidea taxus*	—/SSC/—	Found in a wide range of shrub and herb dominated habitats (e.g., deserts, grasslands, woodlands, and meadows) with friable soils for digging. Found from near sea level to over 7,000 feet. Typical dens consist of burrows dug in dry, sandy soils with sparse overstory.	Absent. Suitable denning habitat with sandy soils and sparse overstory absent from BSA.
Ring-tailed cat *Bassariscus astutus*	—/FP/—	Wide ranging species within variety of habitats. Typically dens in hollow logs and snags, rock piles, and old woodrat nests.	Absent. No suitable denning habitat for species was observed within BSA during site visits.
Sierra Nevada red fox *Vulpes vulpes necator*	—/T/—	Preferred habitat includes remote red fir and lodgepole pine forests in the subalpine zone and alpine fell-fields of the Sierra Nevada.	Absent. Suitable higher-elevation habitat is absent from BSA. BSA is located below the typical elevation range for this subspecies.
Sierra Nevada snowshoe hare *Lepus americanus tahoensis*	—/SSC/—	Boreal zones, typically inhabiting riparian communities with thickets of deciduous trees and shrubs above 4,800 feet. They also inhabit thickets of young conifers and chaparral.	Absent. BSA is located below the typical elevation range for this subspecies.
Western white-tailed jackrabbit *Lepus townsendii townsendii*	—/SSC/—	Found in alpine dwarf scrub, great basin grassland and scrubs, pinon and juniper woodlands, and subalpine coniferous forest.	Absent. Alpine dwarf scrub, great basin grasslands and scrubs, pinon and juniper woodlands, and subalpine coniferous habitat absent from BSA.
Townsend's big-eared bat *Corynorhinus townsendii*	—/SSC/—	Roosts in colonies in caves, mines, tunnels, or buildings in mesic habitats. Habitat must include appropriate roosting, maternity and hibernacula sites free from disturbance by humans.	Habitat Present. Existing bridge within BSA may provide suitable habitat for roosting. The nearest CNDDB record for this species is located approximately 5 miles northwest of the BSA.

Appendix B. Review of Regionally Occurring Special-Status Species

Common Name *Scientific Name*	Status[1] (Fed/State/RPR)	General Habitat Description	Presence/Absence[2]
Pallid bat *Antrozous pallidus*	—/SSC/—	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves.	Habitat Present. Typical maternity roost sites (caves, crevices, mines, buildings) are absent from BSA. Existing bridge within BSA may provide suitable habitat for roosting. The nearest CNDDB record for this species is located approximately 4 miles east of the BSA.
Western red bat *Lasiurus blossevillii*	—/SSC/—	Prefers sites with a mosaic of habitats that includes trees for roosting and open areas for foraging. Strongly associated with extensive stands of riparian	Habitat Present. Suitable roosting habitat available in Jeffrey Pine Forest and foraging habitat throughout BSA.

[1]Federal and State Codes: E = Endangered; T = Threatened; C = Candidate; SSC = Species of Special Concern (State); D = Delisted; FP = California Fully Protected Species. RPR Codes: List 1B = Rare, Threatened or Endangered in CA and Elsewhere; List 2 = Rare, Threatened or Endangered in CA, but more common elsewhere. Extensions: 1 = Seriously endangered in California, 2 = Fairly endangered in California, 3 = Not very endangered in California

[2] Absent - No habitat present or species confirmed absent based on surveys, no further work needed; Habitat Present -Habitat present, the species may be present.

Appendix C Representative Photographs

Blairsden-Graeagle Road at Middle Fork Feather River Bridge (No. 9C-0134) Replacement Project Representative Photographs

Photographs Taken April 4, 2007

Photograph 1: View looking east along Blairsden-Graeagle Road.

Photograph 2: View looking southeast from Blairsden-Graeagle Road.

Photograph 3: View looking east across Blairsden-Graeagle Bridge.

Photograph 4: View looking east towards bridge.

Photograph 5: North side of bridge, looking southeast.

Photograph 6: View of riparian zone looking southeast.

Photograph 7: View looking north of bridge along riparian zone.

Photograph 8: View looking east from under bridge.

Photograph 9: View looking south from south side of bridge.

Photograph 10: View looking west from east side of bridge

Appendix D Delineation of Waters of the United States

This document to be provided.

Appendix E Plant Species Observed

Blairsden-Graeagle Road at Middle Fork Feather River Bridge (No. 9C-0134) Replacement Project Plant List

Observer: Sarah Tona, 6/8/2012 and 9/7/2012

Plant Name	Common Name	Family
Alnus incana ssp. *tenuifolia*	Mountain Alder	Betulaceae
Achillea millefolium	Yarrow	Asteraceae
Acmispon americanus	Spanish Clover	Fabaceae
Amelanchier alnifolia	Saskatoon Service-Berry	Rosaceae
Anaphalis margaritacea	Pearly Everlasting	Asteraceae
Arnica dealbata	Whitneya	Asteraceae
Artemisia douglasiana	Mugwort	Asteraceae
Artemisia tridentata	Sage Brush	Asteraceae
Astragalus purshii var. *purshii*	Pursh's Milkvetch	Fabaceae
Bromus carinatus	California Brome	Poaceae
Bromus tectorum	Cheat Grass	Poaceae
Carex nudata	Torrent Sedge	Cyperaceae
Centaurea cyanus	Garden Cornflower	Asteraceae
Cirsium vulgare	Bull Thistle	Asteraceae
Cryptantha sp.	Cryptantha	Boraginaceae
Darmera peltata	Indian Rhubarb	Saxifragaceae
Descurainia sp.	Tansy Mustard	Brassicaceae
Dieteria canescens	Hoary-Aster	Asteraceae
Ditaxis californica	California Ditaxis	Euphorbiaceae
Elymus glaucus	Blue Wildrye	Poaceae
Epilobium sp.	Willowherb	Onagraceae
Equisetum arvense	Field Horsetail	Equisetaceae
Ericameria bloomeri	Bloomer's Goldenbush	Asteraceae
Ericameria nauseosa	Rabbitbrush	Asteraceae
Erigeron sp.	Fleabane	Asteraceae
Eriogonum nudum	Naked Eriogonum	Polygonaceae
Lepidium campestre	English Pepper-Grass	Brassicaceae
Melica californica	California Melic	Poaceae
Melilotus albus	White Sweetclover	Fabaceae
Mimulus guttatus	Seep Monkey Flower	Phrymaceae
Penstemon speciosus	Showy Penstemon	Scrophulariaceae
Persicaria lapathifolia	Willow Weed	Polygonaceae
Phacelia hastata ssp. *hastata*	Mountain Phacelia	Hydrophyllaceae
Phalaris arundinacea	Reed Canarygrass	Poaceae
Pinus ponderosa	Ponderosa Pine	Pinaceae
Poa annua	Annual Blue Grass	Poaceae

Plant Name	Common Name	Family
Poa bulbosa	Bulbous Bluegrass	Poaceae
Polygonum aviculare ssp. *depressum*	Common Knotweed	Polygonaceae
Populus trichocarpa	Black Cottonwood	Salicaceae
Purshia tridentata	Antelope Bush	Rosaceae
Ribes roezlii	Sierra Gooseberry	Grossulariaceae
Rosa woodsii ssp. *ultramontana*	Interior Rose	Rosaceae
Rumex acetosella	Common Sheep Sorrel	Polygonaceae
Salix laevigata	Red Willow	Salicaceae
Salix lasiolepis	Arroyo Willow	Salicaceae
Scirpus microcarpus	Small-Fruited Bulrush	Cyperaceae
Solidago canadensis ssp. *elongata*	Canada Goldenrod	Asteraceae
Stipa sp.	Needlegrass	Poaceae
Tragopogon dubius	Goat's Beard	Asteraceae
Verbascum thapsus	Woolly Mullein	Scrophulariaceae
Wyethia glabra	Smooth Mule-Ears	Asteraceae