BARTLETT SPRINGS ROAD OVER BARTLETT CREEK BRIDGE REPLACEMENT PROJECT

Natural Environment Study

Bartlett Springs Road over Bartlett Creek Bridge Replacement Project,

District 1, Lake County, California

Project Number: BRLO-5914(111), Bridge No. 14C-0099

April 2018

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Natural Environment Study

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STATE OF CALIFORNIA
Department of Transportation

Prepared By: Melissa Murphy Date: 4-27-18

Melissa Murphy, Biologist
(530) 332-9909
Gallaway Enterprises
117 Meyers Street, Suite 120
Chico, CA 95928

Approval By: _____ Date: 5/2/2018

Scott De Leon, Director
(707) 263-2341
Lake County Department of Public Works
255 N. Forbes Street
Lakeport, CA 95453

Approved By: _____ Date: _____

Steve Hansen, Biological Content Reviewer
California Department of Transportation
District 1

Approved By: _____ Date: _____

Brandon Larsen, Senior Environmental Planner
Caltrans Office of Local Assistance
District 1

Summary

Lake County (County) and the California Department of Transportation (Caltrans) are proposing to replace the Bartlett Springs Road Bridge (No. 14C0099) over Bartlett Creek. The Bartlett Springs Road Bridge Replacement project (Project) is located in a rural area of northeast Lake County, approximately 13.7 miles northeast of State Route 20. The existing bridge has a 2014 sufficiency rating of 50.6 and is designated as Functionally Obsolete by Caltrans. The purpose of the Project is to replace the deficient bridge with a reliable structure to provide a safe crossing that meets current standards. Environmental benefits of the new bridge design include additional water passage and better conformity with the creek channel section. An existing low water crossing directly adjacent to the existing bridge will be used as a detour to redirect traffic during construction. Construction is expected to occur during the summer months when Bartlett Creek is dry or during periods of low flow.

Land within the BSA includes barren gravel roadway, annual grassland habitat, mixed chaparral, Bartlett Creek, and a thin corridor of valley foothill riparian habitat. During the site visit, eighteen (18) invasive plant species recognized by the U.S. Department of Agricultural (USDA) Natural Resource Conservation Service (NRCS) invasive and noxious weed plant list and/or the California Invasive Plant Council (CAL-IPC) were identified within the BSA. Special-status species that have the potential to occur within the BSA include a variety of bird species protected by the Migratory Bird Treaty Act (MBTA) and the foothill yellow-legged frog (FYLF, *Rana boylii*), a state species of special concern (SSC) and a candidate species for listing as threatened under the California Endangered Species Act (CESA). Elderberry shrubs (*Sambucus sp.*), host to the federally threatened valley elderberry longhorn beetle (VELB, *Desmocerus californicus dimorphus*), occur within the BSA; however, the Project site is outside the current and historic range for VELB, thus the Project will have no impact on this species.

With the implementation of avoidance and minimization measures, the Project may affect, but is not likely to adversely affect migratory birds and FYLF. If in-water work is proposed the County shall consult with the California Department of Fish and Wildlife (CDFW) and obtain an Incidental Take Permit (ITP) for FYLF. If required, mitigation for temporary impacts to FYLF and their habitat will include habitat restoration at a 1:1 acre ratio, preparation of a Habitat Mitigation and Monitoring Plan (HMMP), and a minimum of three (3) years of mitigation site monitoring. Appropriate steps to prevent the spread of invasive and noxious plants and their seeds to and from the Project site will be implemented. The Project will result in 0.27 acres of temporary impacts and 0.05 acres of direct impacts to Bartlett Creek, a jurisdictional water of the U. S. (WOTUS). Mitigation for impacts to jurisdictional WOTUS shall be addressed through the purchase of credits at a U.S. Army Corps of Engineers

(Corps) approved mitigation bank or payment to a Corps approved in-lieu fund. Additionally, a CDFW §1602 Streambed Alteration Agreement, Regional Water Quality Control Board (RWQCB) §401 Water Quality Certification permit and a Corps Nationwide 14 §404 permit shall be obtained for the Project.

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List of Abbreviated Terms

ADT	Average Daily Traffic
BSA	Biological Study Area
BMP	Best Management Practices
CAL-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
County	Lake County
CRLF	California Red-Legged Frog
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESL	Environmental Study Limit
FHWA	Federal Highway Administration
FYLF	Foothill Yellow-Legged Frog
GIS	Geographic Information System
HBP	Highway Bridge Program
HDM	Highway Design Manual
HMMP	Habitat Mitigation and Monitoring Plan
ITP	Incidental Take Permit
IPaC	Information for Planning and Conservation
MBTA	Migratory Bird Treaty Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act

NEPA	National Environmental Quality Act
NMFS	National Marine Fisheries Service
NES	Natural Environmental Study
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
OHWM	Ordinary High Water Mark
RSP	Rock Slope Protection
RWQCB	Regional Water Quality Control Board
SSC	State Species of Special Concern
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VELB	Valley elderberry longhorn beetle
WOTUS	Waters of the United States

Chapter 1 – Introduction

The purpose of the Project is to replace the functionally obsolete Bartlett Springs Road Bridge over Bartlett Creek with a reliable structure to provide a safe crossing that meets current standards (**Figure 1: Regional Location Map, Figure 2: Project Location Map)**. The purpose of this Natural Environment Study (NES) is to evaluate potential project impacts to special status species and their habitats within the Biological Study Area (BSA, **Figure 3: Biological Study Area**).

Project History

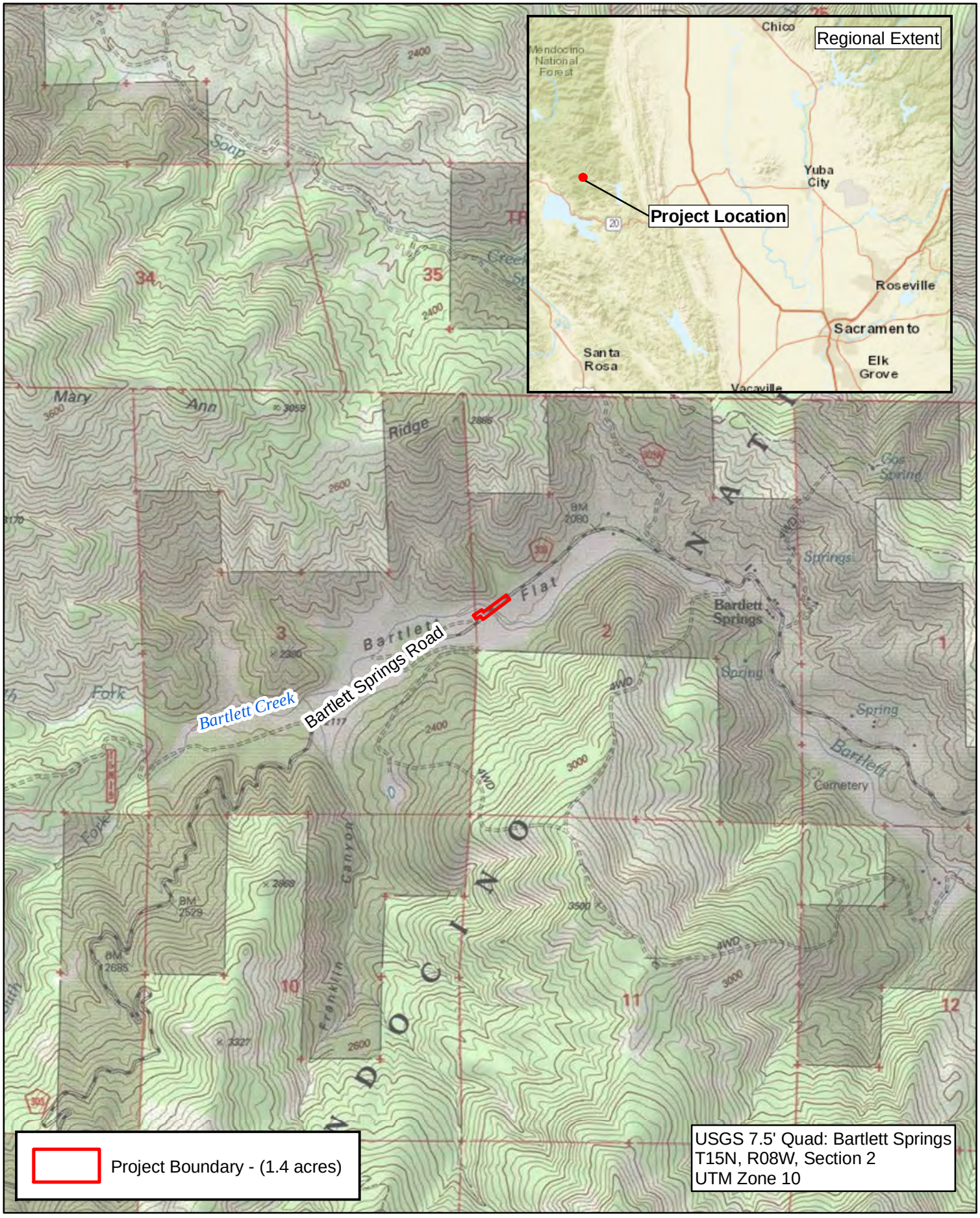
The Bartlett Springs Road Bridge over Bartlett Creek was constructed in 1960 and the original timber deck was replaced with a precast panel deck in 1997. The single lane bridge is a single 53-feet span simply supported steel girder bridge with a precast concrete deck supported by concrete seat abutments with unknown foundations. The existing bridge has a 2014 sufficiency rating of 50.6 and is designated as Functionally Obsolete by Caltrans which makes it eligible for replacement utilizing 88.53% Highway Bridge Program (HBP) funds and 11.47% Toll Credit funds.

Project Description

The project purpose is to improve public safety by replacing the existing Bartlett Springs Road Bridge over Bartlett Creek (No. 14C0099). The Bartlett Springs Road Bridge #14C0099 is located in a rural area of northeast Lake County, approximately 13.7 miles northeast of State Route 20. Bartlett Springs Road is an Off-System Local Road that connects State Route 20 with the rural area north of the Indian Valley Reservoir. The existing bridge has a twelve foot clear width and projected Average Daily Traffic (ADT) of 127 vehicles per day by the year of 2034.

Proposed Bridge Structure:

The proposed bridge replacement structure will have its supports built behind the existing bridge abutments and as such would be slightly longer (60 +/- feet) than the existing bridge length of 53 feet. This approach would keep the new abutments outside the natural creek channel to increase constructability, improve channel hydraulics, and help minimize environmental impacts.



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Data Sources: ESRI, USGS, Quincy Engineering

NORTH

Bartlett Creek Bridge Project
Regional Location
Figure 1

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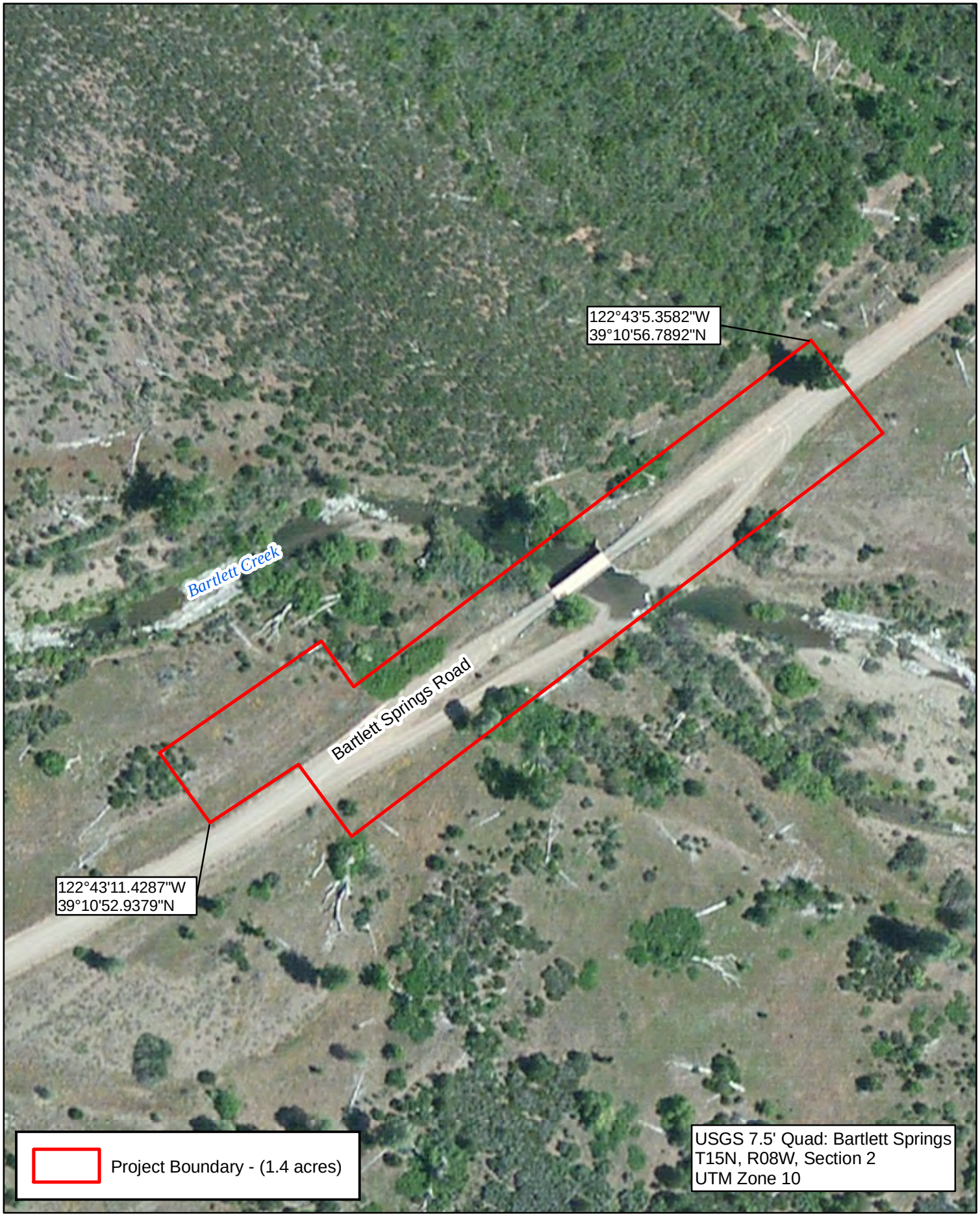
GE# 15-091A Map Date: 07/15/16



NORTH

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Data Sources: ESRI, (base map sourced: 7/15/16), Quincy Engineering

Bartlett Creek Bridge Project
Project Location
Figure 2

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GE# 15-091A Map Date: 07/15/16

NORTH

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Data Sources: ESRI, (base map sourced: 7/15/16), Quincy Engineering

Bartlett Creek Bridge Project
Biological Survey Area
Figure 3

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Transport and placement of high quality structural ready mix concrete will be difficult to achieve at this remote site location. The narrow and windy road to the site will also make transport of larger structural members and construction equipment difficult. Based on these factors, the proposed bridge superstructure is a 60+/- foot single span steel girder with concrete deck bridge. Placement of steel girders will not be time constrained like cast-in-place structural concrete materials. Steel girders can also be broken down into smaller sections for ease of transport and assembled on-site with field splices. While precast girders do not have the time constraints of cast-in-place concrete, precast girders are much more complex and labor intensive to piece together in the field. Steel girders are also considerably lighter than equivalent length concrete girders which will reduce the size of the equipment needed for superstructure erection. The reinforced concrete deck could be either precast or cast-in-place due to the much smaller volumes of concrete required for that component.

Construction of the new bridge abutments will require two excavation areas approximately 35 feet wide by 15 feet long and up to 15 feet deep. Considering the site geology materials and large anticipated hydraulic scour depths, spread footings are not considered cost effective due to the depth of footing excavation and large amount of rock slope protection (RSP) required. Therefore, the proposed bridge will be founded on a deep foundation system consisting of smaller diameter (2'-3') cast-in-drilled-hole (CIDH) piles. The reinforced concrete seat abutment supported by the piles will either be cast-in-place with small volumes or precast off-site and assembled on-site. Rock slope protection will be used around both abutments to help prevent erosion and minimize scour of the roadway embankment materials.

Proposed Bridge Profile:

The design of the proposed bridge will conform to Chapter 820 of the California Department of Transportation's (Caltrans) Highway Design Manual (HDM). In addition, the Federal Highway Administration's (FHWA) criterion for the hydraulic design of bridges is that they be designed to pass the 2% probability of annual exceedance flow (50-year recurrence interval design discharge) with adequate freeboard, where practicable, to account for debris and bedload. A preliminary hydraulic evaluation indicates that no significant changes (additional foot or less) to the existing profile will be required to pass hydraulic flows or achieve adequate freeboard. Additionally, a slightly longer bridge length (60 +/- feet) will not only allow for additional water passage, but will also provide for better conformity with the creek channel section.

Roadway Approaches:

Bartlett Springs Road is a rural, one lane, unpaved road that varies in width from 12' to 24' in width. With a low average daily traffic (ADT) of 127 (projected in 2034), the recommended minimum width of traveled way of 18 feet plus 2 foot shoulders on each side, for a total of 22 feet, is anticipated for the proposed roadway approaches. The new roadway approaches will be unpaved and tapered to conform to the existing roadway condition and width, with standardized transition railings and end treatments for all four corners of the bridge.

In-Channel Work and Detour Route:

Some temporary in-channel work may be required to remove the existing bridge infrastructure and to apply RSP at the abutments to address scour concerns. Constructing the existing bridge on the same alignment will require a minimal detour around the construction zone to maintain through traffic on Bartlett Springs Road. Fortunately, an existing well established low water crossing is directly adjacent to the existing bridge and appears to be a regularly used route by vehicular traffic. This existing and well defined low water crossing is considered the most viable option for redirecting traffic and construction equipment as it will not require additional vegetation removal and minimal earthwork grading within the waterway. To minimize these potential water quality impacts, it is anticipated that construction will be completed in one season, at a time when the creek is dry. However, depending on the creek flows at the time of construction, a temporary stream diversion may be required, which may include screened pumps, a temporary pipe network, and clean gravel fill to route flow through and around the immediate work area, maintain dewatered conditions, and return flow to the downstream channel network without causing harm to biological resources or affecting water quality.

Staging Areas, Rights of Way, and Utilities:

Staging areas will be established on the roadway approaches within County maintained right-of-way, which includes the maintained width of the road. It is anticipated that there will not be any need for permanent right-of-way acquisition. Any temporary construction easements will be minimal as the majority of the project will be built within the footprint of the existing bridge. There is an existing buried fiber optic line running parallel to the existing road alignment on the southern side of Bartlett Springs Road. The fiber optic line flares out as it approaches the bridge and appears to be outside the potential impact area for the proposed low-water crossing. By maintaining the existing alignment, impacts to this utility will be minimal. Further coordination will be required during final design to verify its

exact location, but it currently appears that the proposed project can be constructed without any impacts to this utility and it may be left in place.

Construction Equipment and Schedule:

Typical construction equipment will include the following: Backhoes, dozers, excavators, dump trucks, and concrete breakers for the removal of the existing bridge and excavation at the abutments and backfill compaction. Construction bridge foundations will require working with concrete materials including concrete trucks and pumps. Erection of precast bridge components will involve hauling trucks, small cranes, and temporary scaffolding. Roadway work will require use of graders and dump trucks and earth moving equipment (i.e. backhoe or grader). It is anticipated that construction will begin in the summer of 2018.

Construction activities will occur in the approximate sequence:

- Relocate Utilities - if necessary, currently not anticipated.
- Construct temporary detour and creek crossing downstream of bridge - if required based on flows.
- Construct work shoring and access structures to remove the existing bridge and bridge foundations.
- Construct new bridge foundations and abutments. Abutments are anticipated to be composed of reinforced concrete constructed on CIDH piles anchored into underlying rock below the granular surface materials.
- New RSP will be installed along the re-constructed banks in the areas disturbed by foundation excavation. A large excavator with bucket/thumb attachment would place/fit RSP on the slopes.
- Construct bridge superstructure by erecting steel girders hauled in from off-site. The bridge deck would either be precast off-site and transported to the site for erection on the girder or cast-in-place in deck forms placed on erected steel girders.
- Install bridge safety railing system
- Construct roadway approaches including final grading and approach guard railing
- Completely remove temporary creek crossing detour, if installed
- Final site clean-up of all staging and construction work areas

Chapter 2 – Study Methods

Regulatory Requirements

The following describes federal, state, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) review process and to this NES.

Federal

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct". Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

Waters of the United States, Clean Water Act, Section 404

The US Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (CWA, §404). The term "waters of the United States" (WOTUS) is an encompassing term that includes "wetlands" and "other waters". Wetlands have been defined for regulatory purposes as follows: "those 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). Wetlands generally include swamps, marshes, bogs, and similar areas." other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

Executive Orders 13112; Prevention and Control of Invasive Species

On February 3, 1999, Executive Order 13112 was signed establishing the National Invasive Species Council. Executive Order 11312 directs all federal agencies to prevent and control introductions of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their economic, ecological, and human health impacts. Executive Order 11312 established a national Invasive Species Council made up of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. The Invasive Species Council and Advisory Committee oversees and facilitates implementation of the Executive Order, including preparation of a National Invasive Species Management Plan.

Section two (2) of the Executive Order states:

(a) Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law, (1) identify such actions; (2) subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and

the means to address them; and (3) 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.

(b) Federal agencies shall pursue the duties set forth in this section in consultation with the Invasive Species Council, consistent with the Invasive Species Management Plan and in cooperation with stakeholders, as appropriate, and, as approved by the Department of State, when Federal agencies are working with international organizations and foreign nations.

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW) when preparing documents to comply with the CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "species of special concern" receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the United States Fish and Wildlife Service (USFWS) or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a Project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Clean Water Act, Section 401

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

Streambed Alteration Agreement

The CDFW is a trustee agency that has jurisdiction under the California Fish and Game Code (CFGC) (§1600 et seq.). The CFGC (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed Project 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 department, or use any material from the streambeds… except when the department has been notified pursuant to Section 1601". If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

California Fish and Game Code

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto".

Rare and Endangered Plants

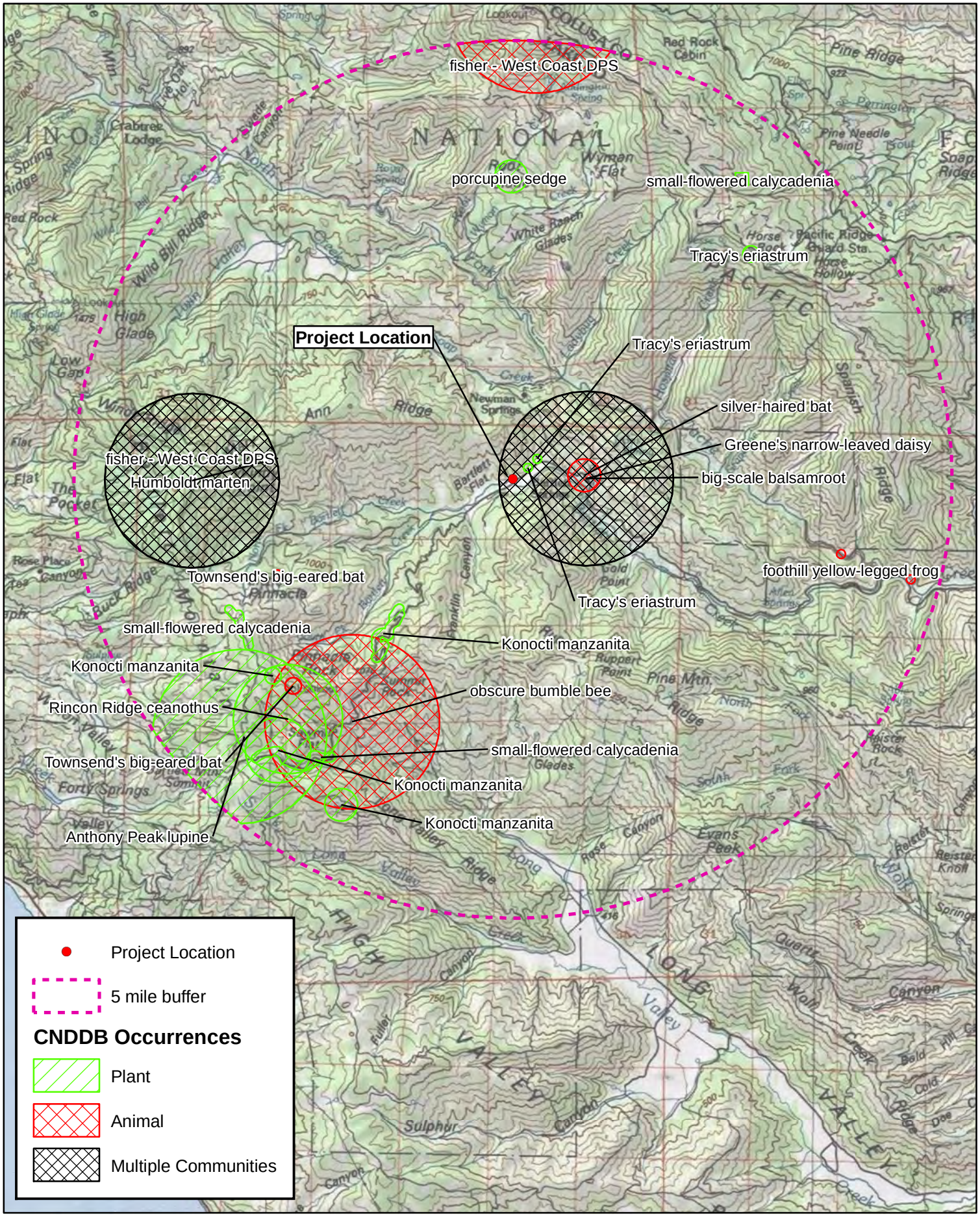
The California Native Plant Society (CNPS) maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The CNPS California Rare Plant Rank (CRPR) categorizes plants as the following:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the 'take' prohibition 'the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way".

Studies Required

Gallaway Enterprises conducted a general habitat assessment and protocol level rare plant survey within the BSA for the Project on May 26, 2016. The BSA is the area in which biological and botanical surveys were conducted and where all construction and staging will occur. Biological and botanical surveys were conducted following review of the USFWS Information, Planning, and Conservation System (IPaC) Official Species List, results of a species record search of the CNDDB, Rarefind 5, and National Marine Fisheries Service (NMFS), CNPS list of rare and endangered plants, and the CNDDB Geographic Information System (GIS) database showing special-status species within a five (5) mile radius of the BSA (**Figure 4: CNDDB Occurrences**). All inquired species lists derived from the defined Project boundary or United States Geological Survey (USGS) "Bartlett Springs, CA" 7.5 minute quadrangles **(Appendix A: Species Lists)**. Based on the results of the species lists, Gallaway Enterprises conducted a general habitat assessment and protocol level rare plant botanical survey to identify any rare, endangered, threatened, or sensitive species and their habitats that may have the potential to occur within the BSA.



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NORTH
Data Sources: ESRI, CNDDB, USGS, Quincy Engineering

Bartlett Creek Bridge Project
CNDDB Occurrences
Figure 4

gallaway ENTERPRISES
GE# 15-091A Map Date: 07/11/16

Personnel and Survey Dates

Gallaway Enterprises visited the site on May 26, 2016. During the visit, biologist Melissa Murphy conducted a general biological habitat assessment, and senior botanist and certified arborist Elena Gregg conducted a protocol-level rare plant survey for plants with blooming periods that overlapped the survey date and a general botanical habitat assessment for plants with blooming periods outside the survey date.

Mrs. Gregg has over eleven years of professional experience conducting rare plant surveys, wetland delineations, and habitat assessments in California. She has a working knowledge of CNPS, CDFW, and USFWS survey protocols and holds a CDFW collection permit for listed plant species. Through her extensive field experience in a wide array of habitats and eco-regions in Northern California, Mrs. Gregg has gained knowledge of locally invasive plants species and noxious weeds.

Ms. Murphy has over seven years of experience surveying at the protocol and general level for listed reptiles and amphibians including California tiger salamander, foothill yellow-legged frog (FYLF), and California red-legged frog (CRLF). Ms. Murphy has experience surveying for foothill yellow-legged frog, PIT tagging reptiles, assisting in de-watering activities including fish relocation, surveying for nesting birds and raptors, capturing and banding waterfowl, and conducting habitat assessments for listed species. Ms. Murphy has installed bird and bat exclusion at a myriad of projects and works under Gallaway Enterprises' CDFW scientific collecting permit.

BIOLOGICAL HABITAT ASSESSMENT

The biological evaluation was conducted by walking the entire BSA and identifying specific habitat types and elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. water, soils), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates). Biological and botanical species observed within the BSA are listed in **Appendix B**.

PROTOCOL LEVEL RARE PLANT SURVEY

The protocol level rare plant survey was conducted during the blooming period for Konocti manzanita (*Arctostaphylos manzanita ssp. elegans)*, big-scale balsamroot (*Balsamorhiza macrolepis*), porcupine sedge (*Carex hysteria*), glandular western flax (*Hesperolinon adenophyllum*), and Greene's narrow-leaved daisy (*Erigeron greenei*). The survey was conducted in accordance with the CDFW November 2009, *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. All accessible areas within the project site were surveyed on foot. A Trimble Geo Explorer 6000

Series GPS Receiver was on hand to record any special-status plant occurrences observed. A list of plant species observed during the survey is included as **Appendix B**.

BOTANICAL HABITAT ASSESSMENT

The protocol level survey was conducted outside of the blooming period for small-flowered calycadenia; therefore in lieu of an absence/presence survey a botanical habitat assessment was conducted to access potential for these species to occur within the BSA. The assessment was conducted by walking in all accessible areas of the BSA and noting the habitat elements present (e.g. soils, geology, hydrology, topography, aspect, elevation, etc.) and vegetation communities present. If present, natural and man-made disturbance patches were noted as well as the successional stage of vegetation within the BSA.

Agency Coordination and Professional Contacts

A field meeting with Tom Smythe of Lake County Water Resources, Todd Mansell and Fred Pezeshk of Lake County Public Works, Mark Reno, Max Katt, Ray Weiss, and Reimond Garcia of Quincy Engineering, Mark Mueller, Timothy Keefe, Mike Kelly, Joe Curiel, Brandon Larson, and Gary Goff of Caltrans, and Christine Lohse and Brian Mayerle of Gallaway Enterprises, was held at the Project site on April 6, 2016 to discuss construction methodology and techniques to avoid effects to aquatic resources.

On January 8, 2018, Gallaway Enterprises spoke with CDFW Environmental Scientist Kelsey Vella as part of early project coordination for proposed mitigation should an Incidental Take Permit (ITP) for FYLF be required. Ms. Vella is responsible for preparing Streambed Alteration Agreements and ITPs for Lake County. The FYLF compensatory mitigation recommended in Chapter 4 of this NES includes Ms. Vella's comments.

Limitations That May Influence Results

There were no limitations that may influence results of the habitat assessment or protocol level rare plant survey.

Chapter 3 – Results: Environmental Setting

Description of the Existing Biological and Physical Conditions

The study area lies within the eastern foothills of the California Coastal Range within the boundaries of the Mendocino National Forest. The BSA is surrounded by steep foothill terrain with scrub dominated habitat and is only accessible by taking Bartlett Springs Road, a gravel road.

Study Area

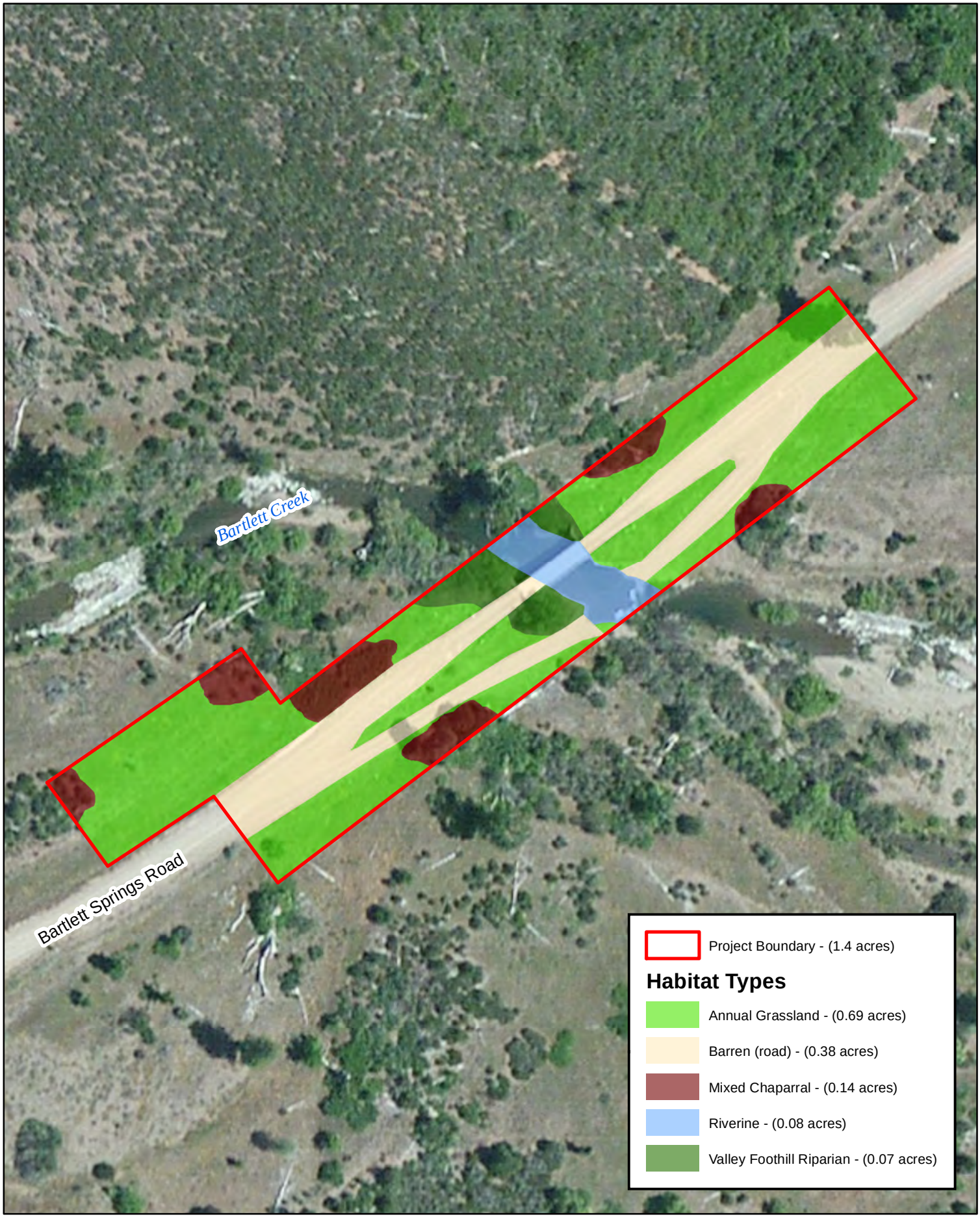
Within the BSA Bartlett Springs Road splits with one fork of the road crossing over Bartlett Creek via the existing bridge and one fork crossing through Bartlett Creek as a low-water crossing. Bartlett Creek, an intermittent stream, flows west to east through the BSA, and typically dries up completely in the late summer and early fall. Vegetation communities and soils within the BSA are heavily influenced by seasonal flooding of Bartlett Creek with early successional valley foothill riparian occurring within the limits of the creek, and barren, mixed chaparral, and annual grassland habitats occurring beyond the immediate riparian zone (**Figure 5: Habitat Map**). All construction related activities shall be restricted to the limits of the BSA; therefore, habitat assessments and surveys were restricted to the area within the BSA.

Physical Conditions

The BSA slopes slightly to the east and sits at an elevation of approximately 920 meters above sea level. There is one (1) type of soil within the BSA that is recognized by the USDA NRCS. The one (1) soil type found within the BSA is Xerofluvents-Riverwash complex (NRCS 2016). The average annual precipitation is 25-40 inches and the average annual temperature is 55-59° F (Climate Center 2016). There is one (1) feature that qualifies as a Waters of the United States within the BSA. Bartlett Creek is characterized as an “other water.” Other waters exhibit an ordinary high water mark, bed, and bank and fall under the jurisdiction of the Corps and CWA. Further classification of Bartlett Creek defines it as a Relatively Permanent Water (RPW) which is defined as a tributary that flows for more than 3 months and has a documented hydrologic connection to a traditionally navigable water.

Biological Conditions in the Biological Study Area

Bartlett Creek within the BSA consists of riverine and a narrow strip of early successional valley foothill riparian habitat. Beyond the riparian corridor, there is dense chaparral vegetation with a few open areas of annual grassland. Habitat types within the BSA are described below.



NORTH

1:1,000
0 50 100 Feet

Data Sources: ESRI, (base map sourced: 7/15/16), Quincy Engineering

Bartlett Creek Bridge Project
Habitat Map
Figure 5

gallaway ENTERPRISES

GE# 15-091A Map Date: 11/08/17

RIVERINE

Bartlett Creek is an intermittent tributary within the Cache Creek watershed, which flows west to east below Bartlett Springs Road Bridge within the BSA. Within the BSA, Bartlett Creek is 0.123 acres (5,362.8 square feet) (**Figure 6: Draft Waters of the United States Delineation Map**). Physical features of the creek include a gravel bottom, sparse vegetation in the low-flow channel, and relatively shallow waters. At the time of the site visit water within Bartlett Creek was flowing and depths within the BSA ranged from a few inches to roughly three (3) feet deep. Once it leaves the BSA, Bartlett Creek flows in a southeasterly direction for approximately eleven (11) miles where it enters the Indian Valley Reservoir.

VALLEY FOOTHILL RIPARIAN

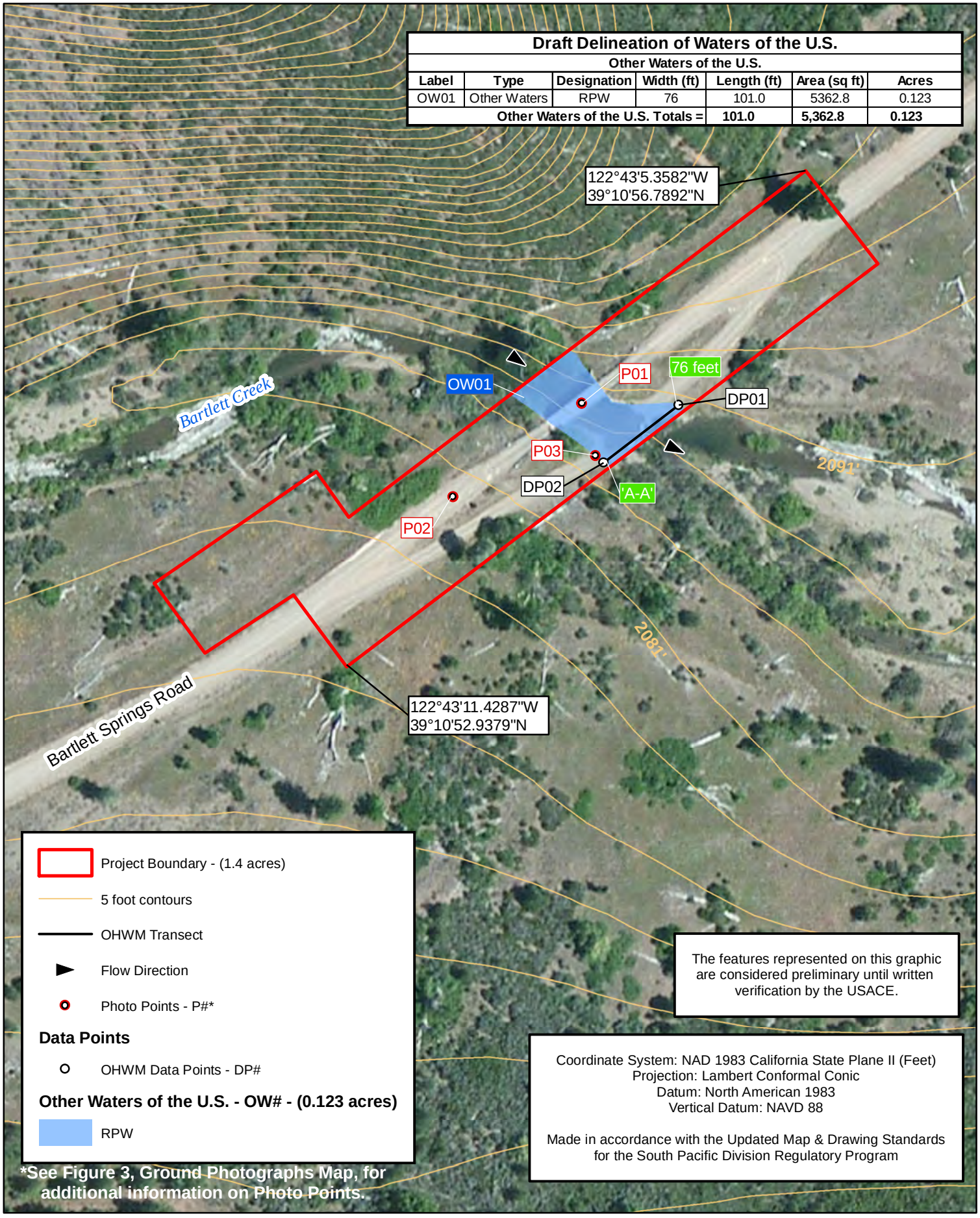
Below the ordinary high water mark (OHWM) of Bartlett Creek, there is a narrow corridor of early successional valley foothill riparian habitat. Early successional valley foothill riparian habitat can last 15-20 years before being overtopped and shaded out by mature tree canopy. Within the BSA, shrubby thickets of arroyo willow (*Salix lasiolepis*) were the dominant vegetation. The strip of valley foothill riparian habitat occurs within the limits of Bartlett Creek, and the transition from this habitat type to adjacent annual grassland and mixed chaparral habitat is abrupt. Valley-foothill riparian habitats provide food, water, migration and dispersal corridors for fish species, and escape, nesting, and thermal cover for an abundance of other wildlife species. Within the BSA, this habitat type is extremely narrow and discontinuous, which greatly reduces the potential habitat benefits it can provide.

MIXED CHAPARRAL

Within the BSA mixed chaparral occurs in a small portion of the staging area and within upland habitat adjacent to Bartlett Creek. Dominant species observed within this habitat include blue elderberry (*Sambucus caerulea*), posion oak (*Toxicodendron diversilobum*), and buckbrush (*Ceanothus cuneatus var. cuneatus*). Mixed chaparral habitat has been known to play an important role in supporting deer populations throughout California. Physical features associated with mixed chaparral habitat include steep slopes with thin, well drained soils and annual precipitation of 15 to 25 inches a year (Mayer and Laudenslayer 1988).

ANNUAL GRASSLAND

Annual grassland is the dominant upland habitat within the BSA. Annual grasslands occur on open flat to gently rolling lands and are dominated by grasses and annual plants, with the dominant species varying depending on the climate and soils. This habitat type often occurs on its own or as an understory in wooded habitat types. Some of the dominant plant species observed in the annual grassland habitat within the BSA include silver hairgrass



NORTH

1:1,200
0 50 100 Feet
1 inch = 100 feet

Data Sources: ESRI, (base map sourced: 7/28/16), Quincy Engineering

Bartlett Creek Bridge Project
Draft Delineation of Waters of the U.S.
Figure 6

Delineation by E. Gregg and M. Murphy
Map by C. Davis
GE# 15-091A

gallaway ENTERPRISES

Map Date: 07/28/16

(*Aira caryophyllea*), wild oat (*Avena barbata*), California brome grass (*Bromus carinatus*), yellow star thistle (*Centaurea solstitialis*), and rip-gut brome (*Bromus diandrus*). A variety of ground nesting avian species, reptiles, and small mammals use grassland habitat for breeding, while many other wildlife species only use it for foraging or require other habitat characteristics such as rocky outcroppings, cliffs, caves, or ponds in order to find shelter and cover for escapement (Mayer and Laudenslayer 1988). Common species found in this habitat type include western fence lizards (*Sceloporus occidentalis*), Northern Pacific rattlesnakes (*Crotalus oreganus*), common garter snakes (*Thamnophis elegans*), Calfiornia ground squirrels (*Otospermophilus beecheyi*), jackrabbits (*Lepus californicus*), western meadowlark (*Sturnella neglecta*), and a variety of raptor and owl species.

BARREN

Within the BSA the existing bridge and Bartlett Springs Road are characterized as barren habitat. This barren habitat contains road base gravel, and the metal bridge structure. Avian species with the potential to nest in the gravel road shoulder or on the bridge within the BSA include house finches (*Haemorhous mexicanus*), house sparrows (*Passer domesticus*), killdeer (*Charadrius* vociferous), cliff swallows (*Petrochelidon pyrrhonota*), black phoebes (*Sayornis nigricans*), and barn swallows (*Hirundo rustica*).

Regional Species and Habitats and Natural Communities of Concern

The following special-status species were identified in the NMFS, USFWS IPaC species list, CNDDB, and the CNPS list of rare and endangered plants as having potential to occur within the USGS "Bartlett Springs" 7.5 minute quadrangles. Species that have the potential to occur within the BSA are based on suitable habitat within the BSA, CNDDB occurrences within a five-mile radius of the BSA, and observations made during biological and botanical surveys. A summary of special-status species and their potential to occur within the BSA is provided in **Table 1**.

Table 1. Listed and Candidate Species Potentially Occurring or Known to Occur in the Bartlett Springs Road Bridge Replacement Project BSA

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
SENSITIVE NATURAL COMMUNITIES					
There are no CDFW designated sensitive natural communities within the BSA.					

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
PLANTS					
Big-scale balsamroot	*Balsamorhiza macrolepis*	CNPS 1B.2	Openings in chaparral, cismontane woodland, grassland (serpentinite, rocky). Blooming Period (BP): Mar.-June.	A	There were no observations of Big-scale balsamroot during the protocol level rare plant survey.
Glandular western flax	*Hesperolinon adenophyllum*	CNPS 1B.2	Chaparral, cismontane woodland, valley/foothill grassland. BP: May-Aug.	A	There were no observations of Glandular western flax during the protocol level rare plant survey.
Greene's narrow-leaved daisy	*Erigeron greenei*	CNPS 1B.2	Serpentine or volcanic chaparral. BP: May-Sept.	A	There were no observations of Green's narrow-leaved daisy during the protocol level rare plant survey.
Konocti manzanita	*Arctostaphylos manzanita ssp. elegans*	CNPS 1B.3	Chaparral, cismontane woodland, lower montane coniferous forest. BP: Mar.-May	A	There were no observations of Konocti manzanita during the protocol level rare plant survey.
Porcupine sedge	*Carex hystericina*	CNPS 2B.1	Marshes and swamps. BP: May-June	A	There were no observations of Porcupine sedge during the protocol level rare plant survey.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
PLANTS					
Small-flowered calycadenia	*Calycadenia micrantha*	CNPS 1B.2	Sparsely vegetated, rocky talus or scree in chaparral and valley/foothill grassland. Typically serpentine BP: June-Sept.	A	There is no suitable open or rocky habitat within the BSA.
Tracy's eriastrum	*Eriastrum tracyi*	CNPS 3.2	Chaparral and cismontane woodland. BP: May-July	A	There were no observations of Tracy's eriastrum during the protocol level rare plant survey.
Cobb Mountain lupine	*Lupinus sericatus*	CNPS 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, amd lower montane coniferous forest. BP: Mar-Jun	A	There were no observations of Cobb Mountain lupine during the protocol level rare plant survey.
INVERTEBRATES					
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	Blue elderberry shrubs in riparian zones.	A	There are elderberry shrubs within the BSA, however the Project is outside of the species range (50 CFR Part 17, Sept. 17, 2014); therefore, the Project will have no effect on VELB.

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
FISH					
Clear Lake Hitch	*Lavinia exilicauda chi*	ST	Confined to Clear Lake and associated lakes, ponds, and tributaries.	A	There are known barriers between Bartlett Creek and the tributaries inhabited by Clear Lake Hitch. (Chi Council for the Clear Lake Hitch, 2017)
Southern Oregon Northern California Coast Coho Salmon		FT/SE		A	There is no suitable SONCC habitat or known occurrences within Lake County; therefore, the Project will have no effect on this species or its critical habitat.
MAMMALS					
Pacific Fisher	*Pekania pennant*	SSC	Mature forests with complex understory and nearby a water resource.	A	There are known CNDDB occurrences of the Fisher in the surrounding vicinity of the BSA; however there is no suitable mature forest habitat within the BSA.
REPTILES & AMPHIBIANS					

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
California red-legged frog	*Rana draytonii*	FT/ SSC	Inhabits quiet pools of streams, marshes, and occasionally ponds.	A	Within the BSA, Bartlett Creek does not provide suitable breeding habitat due to the lack of pools. Additionally, there is no summer holding habitat within the BSA, due to the creek drying up in the late summer months. Lastly, there are no known occurrences within 5 miles of the BSA; therefore, the Project will have no effect on CRLF or its habitat.
Foothill yellow-legged frog	*Rana boylii*	SC-SSC	Partly shaded, shallow streams and riffles with rocky substrates in a variety of habitats, commonly found in canyons and narrow streams. (sea level - 6,700 ft elevation)	HP	There is suitable habitat within the BSA, and Bartlett Creek is hydrologically connected to Cache Creek where there are known CNDDB occurrences of this species.
BIRDS					
Bald Eagle	*Haliaeetus leucocphealus*	FP	Coast, large lakes and river systems, with open forests with large trees and snags.	A	There are no suitable nesting trees within the BSA.
Northern spotted owl	*Strixoccidentalis caurina*	FT	Coniferous forests	A	No suitable forest nesting habitat

Common Name	Scientific Name	Status	General Habitat Description	Habitat Present /Absent	Rationale
					within the BSA or within ¼ mile of the BSA. There will be no effect to northern spotted owl.
BIRDS					
Yellow-breasted chat	*Icteria virens*	SSC	Riparian forest/scrub/woodland (dense thickets).	HP	The willow thicket within the narrow strip of valley foothill riparian provides marginal nesting habitat.
Code Designations					
Absent [A] - no habitat present and no further work needed. Habitat Present [HP] -habitat is, or may be present. The species may be present. Present [P] - the species is present. Critical Habitat [CH] - project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present. Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Candidate (SC), State Species of Special Concern (SSC); California Native Plant Society (CNPS); Sensitive Natural Community (SNC)					

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

Habitats and Natural Communities of Special Concern

There are no CDFW designated natural communities of special concern within or adjacent to the BSA.

It is anticipated that a small portion of riparian habitat will be removed in order to construct the new bridge. Three (3) trees with a diameter at breast height (DBH) of four (4) inches will be removed in order to construct the new bridge. All trees with a DBH of 4 inches or greater shall be mitigated for at a 3:1 ratio on-site. Trees to be replanted shall represent the species of trees that are removed. Tree species present within the BSA can be observed in Project Location Photos (**Appendix C**).

Waters of the United States

Gallaway Enterprises conducted a delineation of waters of the U.S. within the BSA. The entire Project site was surveyed by Gallaway Enterprises staff on May 26, 2016 to identify potentially jurisdictional features. The survey involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the United States Army Corps of Engineers Wetlands Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (2008).

There is one (1) feature that qualifies as a jurisdictional WOTUS within the BSA, Bartlett Creek. There are no wetland features identified within the Project boundary. A Draft Delineation of Waters of the United States Map is included as **Figure 6**.

Project activities will result in 0.27 acres or 120 linear feet of temporary impacts and 0.05 acres or 62 linear feet of direct impacts to Bartlett Creek. The installation of a temporary water diversion may be necessary if water is present in the creek when construction begins, and temporary gravel pads will be placed below the OHWM in order to maneuver equipment and capture falling debris when disassembling the old bridge. These temporary discharges shall be removed at the completion of construction activities. Approximately 220 cubic yards of existing channel material and 37 cubic yards of old concrete material will be removed and 250 cubic yards of rock slope protection (RSP) will be permanently placed

below the OHWM, resulting in 7 cubic yards less fill material below the OHWM at the completion of construction activities (**Table 2**).

Table 2. Proposed Permanent and Temporary Discharged and Removed Material Below Bartlett Creek OHWM

Material	Permanent (CY)		Temporary (CY)	
	Discharged	Removed	Discharged	Removed
Temporary Fill - Water Diversion (Precast Concrete, Clean Gravel, Culvert pipes)	-	-	40	40
Temporary Fill - Gravel Pads	-	-	50	50
Rock Slope Protection (RSP)	250	-	-	-
Existing Channel Materials removed	-	220	-	-
Existing Concrete removed	-	37	-	-
Total (CY)	**250**	**257**	**90**	**90**

Special Status Plant Species

Based on the results of the protocol-level botanical survey conducted within the BSA, no special-status plant species were observed within the BSA. Further, based on the results of the habitat assessment conducted, none of the special-status plant species with blooming periods outside of the field survey date were determined to have potential occur due to the lack of suitable habitat.

Special Status Animal Species Occurrences

FOOTHILL YELLOW-LEGGED FROG

The foothill yellow-legged frog (FYLF) is designated as a California Species of Special Concern (SSC) and a candidate species (SC) for listing as threatened under CESA. It is a gray to olive colored frog with occasional mottling or spots, and lacks a dorsolateral fold common in California red-legged frog or eye strip common in Pacific tree frogs (*Pseudacris regilla*). The FYLF range includes the coast ranges of Oregon south to Los Angeles County, in northern California west of the Cascade crest, and along the west side of the Sierra Nevada range as far south as Kern County. FYLFs are characteristically found close to water in association with perennial streams and intermittent creeks that retain perennial pools through the end of summer. FYLFs utilize boulders and large cobble in streams for areas of refuge from predators, basking, depositing eggs and cover during periods of inactivity such

as over wintering or cold weather. Breeding season begins at the end of the spring flood season, which can be between March and May depending on local conditions. Breeding and egg-laying do not occur in ponds or lakes which are common breeding areas for most ranids (true frogs). Current threats facing FYLF are primarily due to invasive and exotic predators such as the bullfrog (*Rana catesbeiana*) and centrarchid fish. Other threats include degradation of habitat, hydroelectric development, urban development, agriculture, and timber harvests (Zeiner, D.C. et al. 1990).

The CDFW's FYLF Evaluation Report states that FYLF are still widespread across their Northern Coastal California range which consists of Lake, Mendocino, Humboldt, Trinity, Siskiyou, and Del Norte counties. No known extirpations have occurred in the Northern Coastal California range. The CDFW's FYLF Evaluation Report also states that "no known extirpations have occurred in Lake County." Populations of FYLF in Lake County are assumed to be healthy and sustainable.

Survey Results

There were no FYLFs observed within the BSA during the site visit, however, while flowing or ponded water is present there is suitable FYLF habitat present within the BSA. Bartlett Creek typically stops flowing in the spring, and pools dry completely later in the summer. In addition, there are two CNDDB occurrences in Bartlett Creek near its confluence with Cache Creek (occurrence numbers 708 and 795, CNDDB 2016). Occurrence 708 is an estimated 3.9 miles from the BSA, while occurrence 795 is an estimated 4.5 miles from the site.

Project Impacts

Construction activities are anticipated to take place when Bartlett Creek is dry; therefore, there will be no impacts to FYLF individuals or temporary impacts to occupied habitat. In addition, the proposed bridge replacement structure will keep the new abutments outside the natural creek channel and a total of 7 cubic yards of fill will be removed from below the OHWM, resulting in a net increase in aquatic FYLF habitat at the completion of construction activities. To ensure no impacts to FYLF occur due to the proposed Project, the following avoidance and minimization measures will be implemented.

Avoidance and Minimization Efforts

Under state regulations, a candidate threatened species receives the same protections as listed species until the final determination is made on its status. Lake County Department of Public Works and the contractor shall attempt to avoid impacts to FYLF and their habitat by avoiding in-water work. This will be done by commencing Project activities when there is no flowing or ponded water within the BSA and concluding Project activities within Bartlett Creek before the creek begins to flow again the following fall/winter. If it is determined that

in-water work is unavoidable and an ITP is needed, the County shall secure an ITP for the project.

The following recommendations, when implemented, will avoid and minimize impacts to this species:

1. Construction within Bartlett Creek shall commence when there is no flowing or ponded water and shall conclude before the creek begins to flow again the following fall/winter.

2. Prior to the start of construction activities, exclusion fencing shall be installed around the project perimeter. Silt fence shall be used as exclusion fencing in upland areas and "block nets" in the active stream channel.

3. A qualified biologist shall conduct a preconstruction survey within 12 hours prior to the start of construction to determine the absence/presence of FYLF. If at any point FYLF are found within the Project site, CDFW shall be consulted. Construction activities shall not commence until the County has received written verification from CDFW that the project can continue.

4. Products with plastic monofilament or cross joints in the netting that are bound/stitched (such as found in straw wattles/fiber rolls and some erosion control blankets) which may cause entrapment of wildlife, are prohibited.

5. If the Bartlett Creek stream channel is altered during construction, it shall be returned to its pre-project conditions.

A chart showing allowable work windows unconstrained by the need to implement avoidance and minimization measures is provided in **Appendix D**.

Compensatory Mitigation

The Project will result in a net increase in aquatic FYLF habitat and no permanent impacts to FYLF habitat.

If work within Bartlett Creek commences when there is no flowing or ponded water within the BSA and concludes before the creek starts to flow again the following fall/winter there will be no impacts to FYLF individuals or temporary impacts to habitat; therefore, no mitigation shall be required.

If in-water work is proposed then an ITP for FYLF shall be obtained. As a condition of the ITP, acreage of temporary impacts to FYLF habitat shall be mitigated for at a ratio of 1:1.

Mitigation may be satisfied through onsite habitat restoration and may include tasks such as: restoring Bartlett Creek and adjacent uplands to pre-project conditions, final site grading, final erosion and sediment control including hydroseeding, re-planting trees at a 3:1 ratio, eradication of invasives. To satisfy compensatory mitigation, the County will prepare if required an HMMP to facilitate restoration of the mitigation site at a 1:1 ratio (acres). The HMMP shall ensure mitigation site restoration is successfully implemented for a minimum of three (3) years (K. Vella, CDFW Environmental Scientist, personal communication, January 8, 2018).

Cumulative Effects

There are no other known present or foreseeable actions that may impact FYLF populations within the BSA, therefore no cumulative effects to FYLF will occur.

MIGRATORY BIRDS

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

SURVEY RESULTS

During the migratory bird and raptor survey conducted on May 26, 2016, inactive cliff swallow nests were observed on the existing Bartlett Springs Road Bridge. Cliff swallows, barn swallows, and black phoebes commonly nest on the sides or pillars of bridges. These species make open to closed mud cup nests that are constructed primarily of mud mixed with saliva and annual grasses. Nests are often reused every year during the nesting season and are only reconstructed if damaged, eradicated, or occupied. There were no other observed nests within the BSA. Other avian species that have nesting habitat within the BSA

are the yellow breasted chat. Yellow breasted chats are a species of special concern in California. An additional pre-construction survey is recommended prior to construction activities to determine potential locations of active avian species nests within or within close proximity of the BSA.

AVOIDANCE AND MINIMIZATION EFFORTS

To avoid impacts to avian species of special concern (i.e. yellow breasted chat) or avian species protected under the MBTA and the CFGC, the following avoidance and minimization measures are recommended.

The following are avoidance and minimization measures for California avian species of special concern and species protected under the MBTA and the CFGC.

1. Any vegetation removal and/or ground disturbance activities should take place during the avian non-breeding season (September 1 – February 28).

2. If construction is to begin within the avian breeding season (March 1 – August 31) then a migratory bird and raptor survey shall be conducted within the BSA by a qualified biologist. A qualified biologist shall:

    - Conduct a survey for all birds protected by the MBTA and CFGC within seven (7) days prior to construction activities, and map all nests located within 200 feet of construction areas;

    - Develop buffer zones around active nests as recommended by a qualified biologist. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored at least once per week and a report submitted to the County monthly.

    - If construction activities stop for more than ten (10) days then another migratory bird and raptor survey shall be conducted within seven (7) days prior to the continuation of construction activities.

3. Immediately following completion of construction, all disturbed areas that will not receive permanent fill shall receive a native grass seed mixture or in-kind vegetation.

4. All staging and construction activity shall be limited to designated areas within the BSA and designated routes for construction equipment shall be established in order to limit disturbance to the surrounding area.

The following are recommended exclusion and monitoring activities to avoid and minimize impacts to avian species protected under the MBTA and CFGC that have the potential to nest on the existing Bartlett Springs Road Bridge.

5. The removal of the current Bartlett Springs Road Bridge should be conducted during the avian non-breeding season (September 1 – February 28) so as to avoid impacts to avian species that potentially nest on the bridge.

6. If the current Bartlett Springs Road Bridge cannot be removed prior to the avian breeding season (March 1 – August 31) then the following exclusion and monitoring activities shall take place.

   Exclusion

   - All avian nests should be removed from the bridge during the avian non-breeding season, so as to deter avian species from nesting on the bridge.
   - Any exclusionary devices that are deemed necessary in order to prevent avian species from nesting on the existing bridge should be established prior to February 15. Exclusionary devices shall be maintained by the County or project Contractor until the current bridge is removed or the end of the avian breeding season.

   Monitoring

   - Weekly, or as necessary, monitoring or additional exclusion activities shall be conducted on the current Bartlett Creek Bridge after February 15 until the current bridge is removed or the end of the avian breeding season (August 31).

PROJECT IMPACTS

With the implementation of avoidance and minimization measures specified above there will be no direct or indirect impacts to avian species of special concern or avian species protected under the MBTA and CFGC.

COMPENSATORY MITIGATION

There will be no compensatory mitigation necessary for Project activities in regards to avian species of special concern or avian species protected under the MBTA and CFGC.

CUMULATIVE EFFECTS

There are no foreseeable new actions that have potential to threaten migratory birds within the BSA or contribute to cumulative effects of migratory bird species.

VALLEY ELDERBERRY LONGHORN BEETLE

Valley elderberry longhorn beetles (VELB) are listed as a threatened species under the ESA. The VELB is a medium sized (0.8 inch long) beetle that is endemic to the Central Valley of California. The beetle is found only in association with its host plant, elderberry shrubs. Adults feed on the foliage and flowers of elderberry shrubs and are present from March through early June. During this period the beetles mate and females lay eggs on living elderberry plants. The first instar larvae bore to the center of elderberry stems where they feed on the pith of the plant for one to two years as they develop. The VELB larvae typically only bore on stems greater than one inch in diameter, with stems less than one inch in diameter insufficient for larvae development (USFWS 1999, USFWS 2012). Prior to forming their pupae, the elderberry wood boring larvae chew through the bark and then plug the holes with wood shavings. In the pupal chamber, the larvae metamorphose into their pupae and then into adults where upon they emerge between mid-March through June (USFWS 1991). Current threats to VELB consist primarily of riparian habitat destruction causing extirpation, fragmentation, and isolation of beetle populations (USFWS 1991).

SURVEY RESULTS

Blue elderberry shrubs occur within the BSA; however, the Project site is outside the current and historic range of the VELB. Historic range of the VELB represents a patchy distribution from Tehama County to Fresno County. The current range of VELB extends from Napa County east to Tuolumne, and from Tehama County south to Fresno County (USFWS 2014. 50 CFR Part 17 (September 17, 2014)). In addition, the project site is located well above the elevation threshold where VELB have been detected. Extensive presence/absence surveys conducted by Barr in 1991 stated that along the eastern edge of the Coast Range, adults have been found at elevations up to 500 feet above sea level and exit holes have been found up to 730 feet above sea level. The Project site is located approximately 2,095 feet above sea level, more than double the elevation of all known occurrences. Bartlett Creek is hydrologically connected to Cache Creek. Barr observed exit holes on elderberry shrubs along Cache Creek in Yolo County but only up to an elevation of approximately 520 feet. Additionally, there are no records of VELB occurrences within Lake County (USFWS 2014. 50 CFR Part 17 (September 17, 2014)).

PROJECT IMPACTS

There will be no effect to VELB or its habitat, as the Project site is located outside its current and historic range.

AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance measures will not be necessary as the Project will not result in impacts to the VELB or its habitat.

COMPENSATORY MITIGATION

No compensatory mitigation will be required since there will be no impacts to the VELB or its habitat.

CUMULATIVE IMPACTS

No cumulative effects to VELB will occur, since the Project will have no effect on the VELB or its habitat.

Chapter 5 - Results: Permits and Technical Studies for Special Laws or Conditions

Federal Endangered Species Act Consultation Summary

The USFWS was contacted in May and September of 2016, November of 2017, and April of 2018 for a list of endangered, threatened, sensitive and rare species, and their habitats within the Project BSA. The list was later referenced to determine appropriate biological and botanical surveys and potential species occurrence within the Project BSA. Impacts to avian species and their nests protected under the MBTA shall be avoided through the implementation of avoidance and minimization measures. Due to a lack of suitable habitat and federally listed species occurrences within the BSA, the Project will have no effect on federally listed species or their critical habitats and consultation with USFWS is not required.

Federal Fisheries and Essential Fish Habitat Consultation Summary

The NMFS was contacted in January 2018 for a list of endangered, threatened and sensitive fish species and their habitats within the Project BSA. Essential fish habitat (EFH) means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Fishery Conservation and Management Act (MSA, §3). Bartlett Creek flows into Cache Creek which flows into the Indian Valley Reservoir; therefore, Bartlett Creek does not provide habitat for anadromous fish or special-status fish species managed under a fishery council (i.e. Chinook and Coho). Therefore, there is no EFH or the need for federal fisheries consultation.

California Endangered Species Act Consultation Summary

The CDFW was contacted in May and September of 2016 and November of 2017 for a list of endangered, threatened, sensitive, and rare species and their habitats within the Project's BSA. The list was later referenced to determine appropriate biological and botanical surveys and potential species occurrence within the Project BSA. The County and the contractor shall attempt to avoid impacts to FYLF and their habitat by commencing work within Bartlett Creek when there is no flowing or ponded and concluding work within the creek before it begins to flow again in the fall/winter months. If it is determined that in-water work cannot be avoided the County shall consult with CDFW and secure an ITP for the project.

Wetlands and Other Waters Coordination Summary

Gallaway Enterprises conducted a Delineation of Waters of the United States within the BSA.

The Project site was surveyed on-foot by Gallaway Enterprises staff on May 26, 2016 to identify potentially jurisdictional features. The survey, mapping efforts, and report production were performed according to the valid legal definitions of WOTUS in effect on May 26, 2016. The boundaries of non-tidal, non-wetland waters, when present, were delineated at the ordinary high water mark (OHWM) as defined in 33 Code of Federal Regulations (CFR) 328.3. The OHWM represents the limit of United States Army Corps of Engineers (Corps) jurisdiction over non-tidal waters (e.g., streams and ponds) in the absence of adjacent wetlands (33 CFR 328.04) (Curtis, et. al. 2011).

As there are jurisdictional other waters that will be impacted by Project activities, a CDFW §1602 Streambed Alteration Agreement, RWQCB §401 Water Quality Certification permit and a Corps Nationwide §404 14 permit are necessary. The Project will result in 0.27 acres of temporary impacts and 0.05 acres of direct impacts to jurisdictional WOTUS. There are no wetland features identified within the Project boundary, therefore no impacts to wetlands will occur as a result of the Project. Mitigation for impacts to jurisdictional WOTUS shall be addressed through the purchase of credits at a Corps approved mitigation bank or payment to a Corps approved in-lieu fund.

Invasive Species

There are eighteen (18) invasive species plant identified within the BSA that are recognized by the United States Department of Agricultural (USDA) Natural Resource Conservation Service (NRCS) invasive and noxious weed plant list and/or the California Invasive Plant Council (CAL-IPC) **(Table 3)**. Appropriate steps to prevent the spread of invasive and noxious plants and their seeds to and from the Project site shall include ensuring all highway equipment used on the project is free of mineral soil and vegetation. Evidence of high pressure washing or steam cleaning of heavy equipment, prior to initial entry to the project limits, shall be required to minimize the potential for the spread of invasive weeds from outside the BSA.

Table 3. Invasive Plant Species Identified within the BSA

Scientific Name	Common Name	Ecology	CAL-IPC	USDA California State

Scientific Name	Common Name	Ecology	CAL-IPC	USDA California State
Avena barbata	Wild Oats	Wild oat is a winter annual grass that grows in every grassland area in California. It does well in sandy/poor soils, often on the road verges. It is one of the annual grasses that was introduces as a forage species and has replaced the native perenn ial grasses.	Moderate	N/A
Brassica nigra	Black mustard	Black mustard is a winter annual herb that grows allelopathic chemicals that prevent germination of native plants. The spread of this species can increase frequency of fires in chaparral and coastal sage scrub, changing these habitats to annual grassland.	Moderate	N/A
Bromus diandrus	Ripgut brome	Ripgut brome is an annual grass that has displaced much of the native grass throughout California. It becomes very dry and flammable during the dry season, increasing wildfire frequency, leading to conversion of shrubland and woodland to grassland. This species is reported to hybridize with downy and red brome.	Moderate	N/A
Bromus hordeaceous	Soft chess	Soft brome is an annual grass that persists in disturbed areas at low elevation. This species out competes native grasses and is commonly eaten by range animals. It can invade soils with low fertility, including serpentine soils that are home to rare plant species.	Limited	N/A
Bromus madritensis ssp. rubens	Red brome	Red brome is a cool-season annual grass that invades disturbed areas, roadsides, agricultural fields, rangelands and forestry sites. Its presence increases fire frequency and converts habitat to annual grassland.	High	N/A

Scientific Name	Common Name	Ecology	CAL-IPC	USDA California State
Bromus tectorum	Cheatgrass	Cheatgrass is an annual grass that overcrowds native grasslands and croplands. Replacement of native grasses by cheatgrass increases the frequency and extent of wildfires.	High	N/A
Centaurea solstitialis	Yellow star-thistle	Yellow star-thistle is a busy winter annual invading 12 million acres in California. This species inhabits open hills, grasslands, open woodlands, fields, roadsides, and rangelands. It is considered one of the most serious rangeland weeds as it propagates rapidly by seed, and one large plant can produce 75,000 seeds.	High	CW
Erodium cicutarium	Redstem filaree	Redstem filaree is an aggressive annual commonly found along roadsides, grasslands, fields, and semi-desert areas.	Limited	N/A
Festuca perennis	Italian ryegrass	Italian ryegrass is an annual grass found throughout Calfiornai except in desert ecosystems. It prefers areas with fertile, well-drained soils, including roadsides, fields, orchards and vineyards. It is commonly cultivated for erosion control, pasture forage, and turf.	Moderate	N/A
Geranium dissectum	Cut-leaf geranium	Cut-leaf geranium is an annual forb found throughout California along waste ground, grasslands, and hedge banks that competes with native vegetation for resources.	Limited	N/A
Hypericum perforatum	St. John's wort	St. John's wort is a perennial plant grown for medicinal use but can be toxic to light colored livestock when consumed in large quantities.	Moderate	CW

Scientific Name	Common Name	Ecology	CAL-IPC	USDA California State
Hypochaeris glabra	Smooth cat's ear	Smooth cat's ear is an annual flowering herb that prefers disturbed places including roadsides, orchards, and landscaped areas, as well as grasslands, woodlands, and scrublands. Cultivation can be used to control smooth cat's ear, but grazing, mowing, or burning can encourage growth and seed germination.	Limited	N/A
Marrubium vulgare	Horehound	Horehound is a perennial forb found in disturbed places throughout California in grassland scrub and riparian areas. It has minor impacts on native species.	Limited	N/A
Plantago lanceolata	English plantain	English plantain is a perennial forb that is thrives in disturbed areas throughout California tolerating sand, clay, and serpentine soils.	Limited	N/A
Torilis arvensis	Hedge-parsley	Hedgeparsley occurs in disturbed habitats throughout California. The mature fruit has small hooks that cling to clothing, hair, or fur, facilitating long distance dispersal.	Moderate	N/A
Trifolium hirtum	Rose clover	Rose clover is an annual forb that out competes indigenous clover and native grasses. It can tolerate dryer soils and frost.	Limited	N/A
Verbascum Thapsus	Wooly mullein	Wooly mullein is an annual forb that occurs throughout California and is particularly abundant on the eastern side of the Sierra Nevada mountain range. Its seeds can survive for 35 years or more in the soils and it is a host for insects that are economic pests.	Limited	N/A
Festuca myuros	Rattail fescue	Rattail fescue is an annual grass that was introduced and outcompetes native perennial grasses for habitat.	Moderate	N/A

CODE DESIGNATIONS

Limited – ecological impacts are minor or not enough information; low to moderate rates of invasiveness; distribution is generally limited, but these species may be locally persistent and problematic.
Moderate – Ecological impacts are substantial, but not sever; moderate to high rates of dispersal but establishment dependent on ecological disturbance; limited to widespread distribution.
High – Ecological impacts sever; moderate to high rates of dispersal and establishment; widely distributed.

CW = C List (noxious weeds)

Chapter 6 - References

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Appendix A – Species Lists

United States Fish and Wildlife Service, IPaC

California Department of Fish and Wildlife Natural Diversity Database

California Native Plant Society

NMFS Species List

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Bartlett Springs (3912226))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Dicots	PDERI04271	69	1	None	None	G5T3	S3	1B.3	null	Chaparral, Cismontane woodland, Lower montane coniferous forest
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	50	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Cismontane woodland, Ultramafic, Valley & foothill grassland
Bombus caliginosus	obscure bumble bee	Insects	IIHYM24380	181	1	None	None	G4?	S1S2	null	IUCN_VU-Vulnerable	null
Calycadenia micrantha	small-flowered calycadenia	Dicots	PDAST1P0C0	22	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Chaparral, Meadow & seep, Ultramafic, Valley & foothill grassland
Carex hystericina	porcupine sedge	Monocots	PMCYP036D0	4	1	None	None	G5	S1	2B.1	null	Freshwater marsh, Marsh & swamp, Wetland
Eriastrum tracyi	Tracy's eriastrum	Dicots	PDPLM030C0	119	2	None	Rare	G3Q	S3	3.2	USFS_S-Sensitive	Chaparral, Cismontane woodland, Valley & foothill grassland
Erigeron greenei	Greene's narrow-leaved daisy	Dicots	PDAST3M5G0	20	1	None	None	G3	S3	1B.2	null	Chaparral, Ultramafic
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	139	1	None	None	G5	S3S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Lower montane coniferous forest, Oldgrowth, Riparian forest
Lupinus sericatus	Cobb Mountain lupine	Dicots	PDFAB2B3J0	46	1	None	None	G2?	S2?	1B.2	BLM_S-Sensitive	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Ultramafic
Pekania pennanti	fisher - West Coast DPS	Mammals	AMAJF01021	737	1	None	Candidate Threatened	G5T2T3Q	S2S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	North coast coniferous forest, Oldgrowth, Riparian forest
Rana boylii	foothill yellow-legged frog	Amphibians	AAABH01050	1604	2	None	Candidate Threatened	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFS_S-Sensitive	Aquatic, Chaparral, Cismontane woodland, Coastal scrub, Klamath/North coast flowing waters, Lower montane coniferous forest, Meadow & seep, Riparian forest, Riparian woodland, Sacramento/San Joaquin flowing waters

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

7 matches found. Click on scientific name for details

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quad 3912226

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	Ericaceae	perennial evergreen shrub	(Jan)Mar-May(Jul)	1B.3	S3	G5T3
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calycadenia micrantha	small-flowered calycadenia	Asteraceae	annual herb	Jun-Sep	1B.2	S2	G2
Carex hystericina	porcupine sedge	Cyperaceae	perennial rhizomatous herb	May-Jun	2B.1	S1	G5
Erigeron greenei	Greene's narrow-leaved daisy	Asteraceae	perennial herb	May-Sep	1B.2	S3	G3
Hesperolinon adenophyllum	glandular western flax	Linaceae	annual herb	May-Aug	1B.2	S2S3	G2G3
Lupinus sericatus	Cobb Mountain lupine	Fabaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 07 November 2017].

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Contributors
The Calflora Database
The California Lichen Society

From: Melissa Murphy
To: nmfwwcrca.specieslist@noaa.gov
Subject: Bartlett Springs Road Bridge Replacement Federal Project No. BRLO-5914(111), Bridge No. 14C-0099
Date: Wednesday, January 17, 2018 10:35:00 AM

Quad Name **Bartlett Springs**

Quad Number **39122-B6**

ESA Anadromous Fish

SONCC Coho ESU (T) - **X**

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat - **X**

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Melissa Murphy
COO/Biologist/QSP
Gallaway Enterprises, Inc.
117 Meyers Street, Suite 120
Chico, CA 95928
(530) 332-9909 office
(760) 957-6775 cell
(530) 332-9905 fax
www.gallawayenterprises.com

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: April 03, 2018
Consultation Code: 08EACT00-2016-SLI-0286
Event Code: 08EACT00-2018-E-00368
Project Name: Bartlett Springs Road Bridge Replacement Project

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

Project Summary

Consultation Code: 08EACT00-2016-SLI-0286

Event Code: 08EACT00-2018-E-00368

Project Name: Bartlett Springs Road Bridge Replacement Project

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: bridge replacement

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.18193412874224N122.71872484186474W

Counties: Lake, CA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1123

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix B – Species Observed during the May 26, 2016 Site Visit

Plant Species Observed in the Bartlett Creek Bridge Project Site 5/26/16	
Scientific Name	**Common Name**
Acmispon wrangelianus	Chilean trefoil
Adenostoma fasciculatum	Chamise
Aira caryophyllea	Silver hairgrass
Allium amplectens	Clasping onion
Arctostaphylos manzanita ssp. manzanita	Big manzanita
Artemisia douglasiana	Mugwort
Avena barbata	Wild oats
Brassica nigra	Black mustard
Bromus carinatus	California brome grass
Bromus diandrus	Rip-gut brome
Bromus hordeaceous	Soft chess
Bromus madritensis	Foxtail chess
Bromus tectorum	Cheatgrass
Ceanothus cuneatus var. cuneatus	Buckbrush
Centaurea solstitialis	Yellow star thistle
Cercocarpus betuloides var. betuloides	Birch-leaved mountain mahogany
Clarkia purpurea ssp. viminea	Winecup clarkia
Convulvulus arvensis	Bindweed
Cuscuta sp.	Dodder
Dichelostemma congestum	fork-toothed ookow
Elymus multisetus	Big squirreltail
Epilobium sp.	Willowherb
Epilobium brachycarpum	Annual fireweed
Eriodictyon californicum	Yerba santa
Eriogonum nudum var. nudum	Few-flowered buckwheat
Erodium cicutarum	Cut-leaf filaree
Eschscholzia californica	California poppy
Festuca myuros	Rattail fescue
Galium aparine	Bedstraw
Geranium dissectum	Cut-leaf geranium
Hoita macrostachya	California hemp
Hypericum perforatum	St. John's wort
Hypochaeris glabra	Smooth cat's ear
Juncus effusus	Pacific rush
Juncus tenuis	Slender rush
Leptosiphon bicolor	True babystars
Lupinus bicolor	Sky lupine
Madia gracilis	Slender tarweed
Marrubium vulgare	Horehound
Matricaria discoidea	Pineapple weed
Melilotus indicus	Annual yellow sweetclover
Mentha spicata	Spearmint
Micropus californicus	Q tips
Mimulus floribundus	Many flowered monkeyflower

Navarretia intertexta	Needleleaf navarretia
Penstemon sp.	Penstemon
Pinus attenuata	Knobcone pine
Pinus sabiniana	Gray pine
Plantago lanceolata	English plantain
Poa bulbosa	Bulbous bluegrass
Populus fremontii	Fremont's cottonwood
Quercus lobata	Valley oak
Rhus aromatica	Fragrant sumac
Rigiopappus leptocladus	Wireweed
Rosa sp.	Rose
Rumex salicifolius	Willow dock
Salix gooddingii	Goodding's willow
Salix lasiolepis	Arroyo willow
Sambucus nigra ssp. caerulea	Blue elderberry
Sherardia arvensis	Field madder
Torilis arvensis	Hedge parsley
Trifolium ciliolatum	Foothill clover
Trifolium dubium	Little hop clover
Trifolium hirtum	Rose clover
Trifolium microcephalum	Small headed clover
Verbascum thapsus	Wooly mullein
Verbena lasiostachys var. lasiostachys	Western vervain

Wildlife Species Observed in the Bartlett Creek Bridge Project Site 5/26/16	
Scientific Name	**Common Name**
Agelaius phoeniceus	Red-winged blackbird
Aphelocoma californica	Scrub jay
Baeolophus inornatus	Oak titmouse
Callipepla californica	California quail
Calypte anna	Annas Hummingbird
Carduelis psaltria	Lesser gold finch
Cathartes aura	Turkey vulture
Colaptes auratus	Northern flicker
Corvus brachyrhynchos	American Crow
Icterus bullockii	Bullock's oriole
Melanerpes formicivorus	Acorn woodpecker
Melozone crissalis	California Towhee
Mimus polyglottos	Northern mockingbird
Picoides nuttallii	Nuttall's Woodpecker
Psaltriparus minimus	Bushtit
Sayornis nigricans	Black phoebe
Spinus tristis	Gold finch
Sturnella neglecta	Western Meadowlark
Sturnus vulgaris	European starling
Thryomanes bewickii	Bewick's wren

Turdus migratorius	American Robin
Zenaida macroura	Mourning dove
AMPHIBIANS	
Pseudacris triseriata	Western chorus frog
REPTILES	
Sceloporus occidentalis	Western fence lizard

Appendix C – Project Location Photos taken May 26, 2016

Standing on the Bartlett Springs Road bridge looking downstream at Bartlett Creek

Standing on the Bartlett Springs Road bridge looking upstream at Bartlett Creek

Standing in the northern portion of the Project looking southwest at the bridge.

Standing on the low water crossing east of the existing bridge.

Standing on Bartlett Springs Road looking northeast at the proposed Staging Area.

Appendix D - Work Windows Unconstrained by the Implementation of Species Avoidance and Minimization Measures

Allowable Work Windows Without the Implementation of Species Avoidance and Minimization Measures

	January	February	March	April	May	June	July	August	September	October	November	December
Foothill Yellow-Legged Frog							**Window when Bartlett Creek is anticipated to be dry***					
Migratory Birds									**Outside Avian Nesting Season^**			

* Work can occur outside this window if Bartlett Creek is dry. No in-water work at anytime is permitted without consultation between the County and CDFW.

^If work occurs from March 1-August 31st a qualified biologist shall conduct a preconstruction survey 7 days prior to the start of constrution. If the current Bartlett Springs Road bridge cannot be removed prior tothe avian nesting season then avian exclusion shall be installed on the bridge prior to February 15th and monitored weekly until the bridge is removed or the end of the nesting season.