

Initial Study/Proposed Mitigated Negative Declaration
Snake Lake Road Bridge Replacement Project

Prepared for:
Plumas County Public Works
1834 East Main Street
Quincy, CA 95971

AECOM

July 2013

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Snake Lake Road Bridge Replacement Project

Prepared for:
Plumas County Public Works
1834 East Main Street
Quincy, CA 95971

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July 2013

Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) for the Snake Lake Road Bridge Replacement Project

Plumas County finds that this project would not have a significant effect on the environment. This finding is based on the criteria established in California Environmental Quality Act (CEQA) Guidelines Sections 15064 (Determining Significant Effects), 15065 (Mandatory Findings of Significance) and 15070 (Decision to Prepare a Negative Declaration), and the findings presented in the attached Initial Study Environmental Checklist.

Project Location: Plumas County. Approximately 5 miles west of the town of Quincy, California at the intersection of Bucks Lake Road and Snake Lake Road.

Project Description: Plumas County (County) is proposing to replace Snake Lake Road Bridge over Spanish Creek (Bridge No 9C-0148). Snake Lake Road Bridge is located in an unincorporated mountainous area of Plumas County, in the Plumas National Forest, approximately 5 miles west of the town of Quincy, California. The project site is located at the intersection of Bucks Lake Road and Snake Lake Road and encompasses approximately 2.16 acres.

Snake Lake Road Bridge over Spanish Creek is a two-lane bridge. The replacement bridge and approach roadway are proposed to be constructed on the existing horizontal alignment with a vertical profile grade that closely resembles the existing one. The footprint of the proposed project encompasses approximately 2.16 acres and includes the existing bridge being replaced, the temporary detour bridge, improvements to sections of Bucks Lake Road and Snake Lake Road, a temporary construction easement, right-of-way acquisitions, and temporary staging areas on the shoulders of Bucks Lake Road and on a dirt parking area west of Snake Lake Road.

The new concrete bridge will have a clear roadway width of 28 feet. The approach roadway will have two 12-foot-wide paved lanes with 2-foot wide paved shoulders. Improvements to the southern approach, which connects to Bucks Lake Road, will include construction of acceleration and deceleration tapers on Bucks Lake Road; improvements to the northern approach would include reconstruction of 150 to 200 feet of Snake Lake Road.

It is anticipated that the entire project would be completed in a single construction season (June through October).

Public Comment Period and Availability of Documents: The Initial Study and NOI to Adopt the MND was released for public review August 28, 2013 and the 30 day public review period for this NOI will close September 27, 2013. The Initial Study will be available for review on the County web site (www.countyofplumas.com) and at the following location(s):

Plumas County Public Works
1834 East Main Street
Quincy, CA 95971

Written comments on the Initial Study and NOI must be received no later than 5:00 p.m. on September 27, 2013. Please be sure to include your name, address, and telephone number. Written comments on the Initial Study and NOI should be sent to:

James Graham
Plumas County Public Works
1834 East Main Street
Quincy, CA 95971

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1 INTRODUCTION

1.1 REGULATORY REQUIREMENTS

This Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) for the proposed Snake Lake Road Bridge Replacement Project (proposed project) has been prepared by the County of Plumas to evaluate the potential environmental effects of the proposed project. This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq.*) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 *et seq.*).

An IS is prepared by a lead agency to determine if a project may have a significant effect on the environment and to determine the appropriate environmental document for CEQA compliance. In accordance with State CEQA Guidelines Section 15070, a public agency shall prepare a proposed negative declaration or mitigated negative declaration when the initial study shows that there is no substantial evidence that the project may have a significant effect on the environment or the initial study identifies potentially significant effects but revisions in the project plans or proposals made by, or agreed to by, the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur. In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). This IS/MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

1.2 PURPOSE OF THIS DOCUMENT

The Plumas County Planning Department is the agency for the proposed project and has determined that an IS/MND is the appropriate document for compliance with CEQA. The purpose of this document is to present to the public and reviewing agencies the environmental consequences of implementing the proposed project. This disclosure document is being made available to the public for review and comment. The IS/ND is available for a 30-day public review period from August 28, 2013 to September 27, 2013.

The public is invited to submit comments to:

James Graham
Plumas County Public Works
1834 East Main Street
Quincy, CA 95971

Comments received from the public and reviewing agencies will be considered by the County in the project decision.

This IS/MND is available for public review on the County web site (www.countyofplumas.com) and at the following location:

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

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts resulting from implementation of the proposed project. Based on the issues evaluated in that chapter, it was determined that the proposed project would have no impact on the following issue areas:

- ▶ Land Use and Planning
- ▶ Mineral Resources
- ▶ Population and Housing
- ▶ Public Services
- ▶ Recreation

Impacts of the proposed project were determined to be less than significant for the following issue areas:

- ▶ Aesthetics
- ▶ Agricultural and Forest Resources
- ▶ Air Quality
- ▶ Biological Resources
- ▶ Cultural Resources
- ▶ Geology and Soils
- ▶ Greenhouse Gas Emissions
- ▶ Hazards and Hazardous Materials
- ▶ Hydrology and Water Quality
- ▶ Noise
- ▶ Transportation/Traffic
- ▶ Utilities and Service Systems

1.4 DOCUMENT ORGANIZATION

This IS/MND is organized as follows:

Chapter 1 — Introduction provides a brief overview of the environmental review process and describes the purpose and organization of this document.

Chapter 2 — Project Description describes the project location, project elements, construction details, required permits and approvals for the project.

Chapter 3 — Environmental Checklist presents an analysis of environmental issues identified in the Environmental Checklist, taken from Appendix G of the State CEQA Guidelines, and determines for each topical area whether the proposed project would result in no impact, a potentially significant impact, or a less-than-significant impact. If any impacts were determined to be significant, an EIR would be required. For this project, however, the environmental protection measures that have been incorporated into the project, where needed, reduce all potentially significant impacts to less than significant.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Plumas County (County) is proposing to replace Snake Lake Road Bridge over Spanish Creek (Bridge No 9C-0148). Snake Lake Road Bridge is located in an unincorporated mountainous area of Plumas County, in the Plumas National Forest, approximately 5 miles west of the town of Quincy, California (Figure 2-1). The project site is located at the intersection of Bucks Lake Road and Snake Lake Road and encompasses approximately 2.16 acres. The Spanish Creek watershed is part of the Feather River watershed, which drains into Lake Oroville and is part of the much larger Sacramento River watershed.

Snake Lake Road Bridge over Spanish Creek is a two-lane bridge. The bridge was constructed in 1969 and originally spanned Rock Creek on Bucks Lake Road, but when Bucks Lake Road was reconstructed to the current alignment under the old Federal-Aid Secondary (FAS) program, the County salvaged the truss and installed it at its present location in 1975. The bridge is approximately 82 feet long and 20 feet wide. The bridge provides access to the County's Gopher Hill Landfill, which is presently closed, public lands managed by the U.S. Forest Service (USFS), and private lands east of the unincorporated community of Meadow Valley.

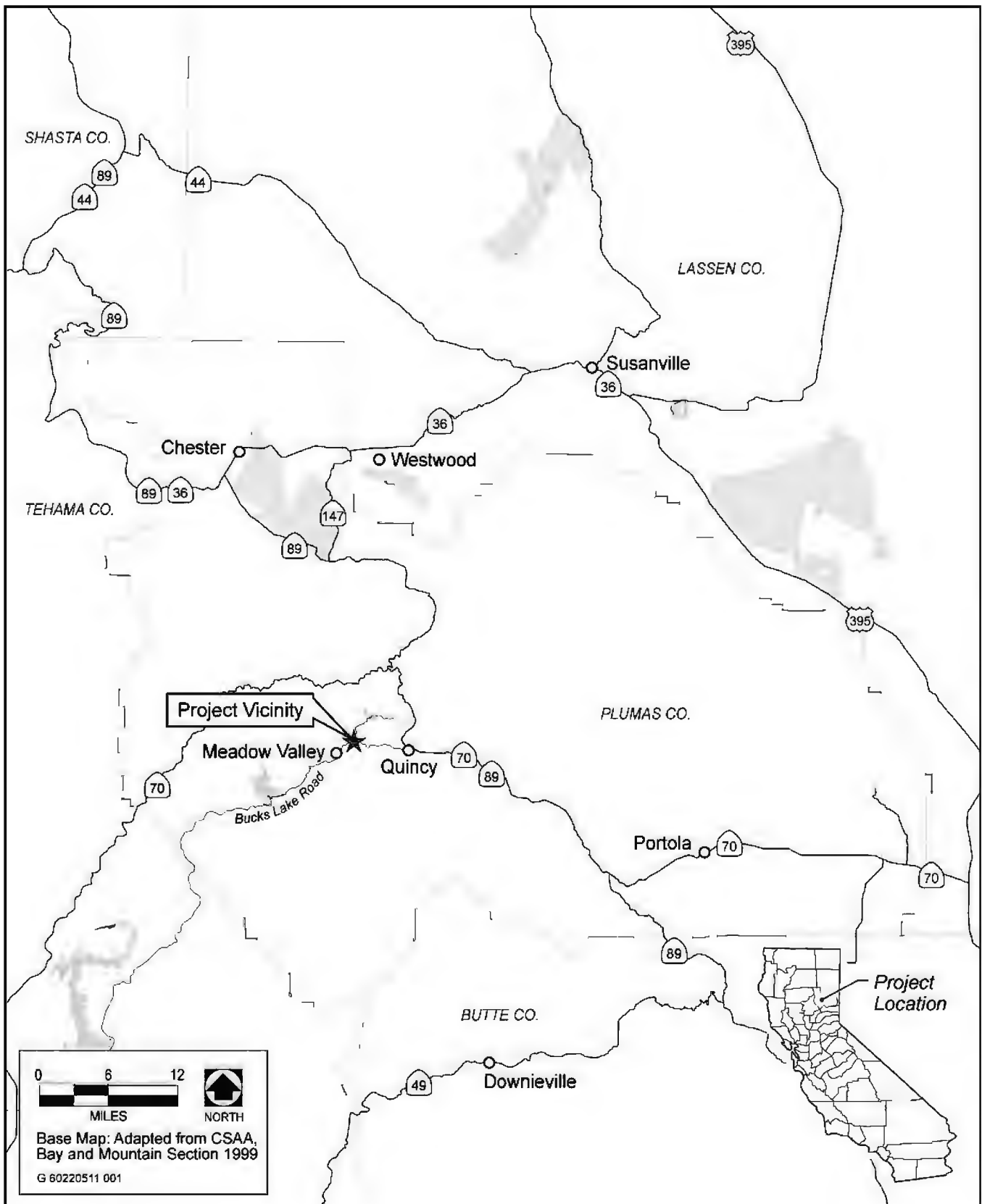
2.2 PROJECT ELEMENTS

Snake Lake Road Bridge would be closed during construction, but the County proposes to install a temporary single-lane bridge immediately west of the existing bridge to accommodate traffic on Snake Lake Road. The temporary bridge would consist of a pre-fabricated structure and its abutments would be constructed outside the limits of flowing water. The embankments required for the detour bridge would be constructed using borrow materials available at the site. Upon completion of the construction of the new bridge, the temporary bridge would be removed.

The replacement bridge and approach roadway are proposed to be constructed on the existing horizontal alignment with a vertical profile grade that closely resembles the existing one. The footprint of the proposed project encompasses approximately 2.16 acres and includes the existing bridge being replaced, the temporary detour bridge, improvements to sections of Bucks Lake Road and Snake Lake Road, a temporary construction easement, right-of-way acquisitions, and temporary staging areas on the shoulders of Bucks Lake Road and on a dirt parking area west of Snake Lake Road.

The new concrete bridge will have a clear roadway width of 28 feet. The approach roadway will have two 12-foot-wide paved lanes with 2-foot wide paved shoulders. Improvements to the southern approach, which connects to Bucks Lake Road, will include construction of acceleration and deceleration tapers on Bucks Lake Road; improvements to the northern approach would include reconstruction of 150 to 200 feet of Snake Lake Road. Figure 2-2 provides a project overview.

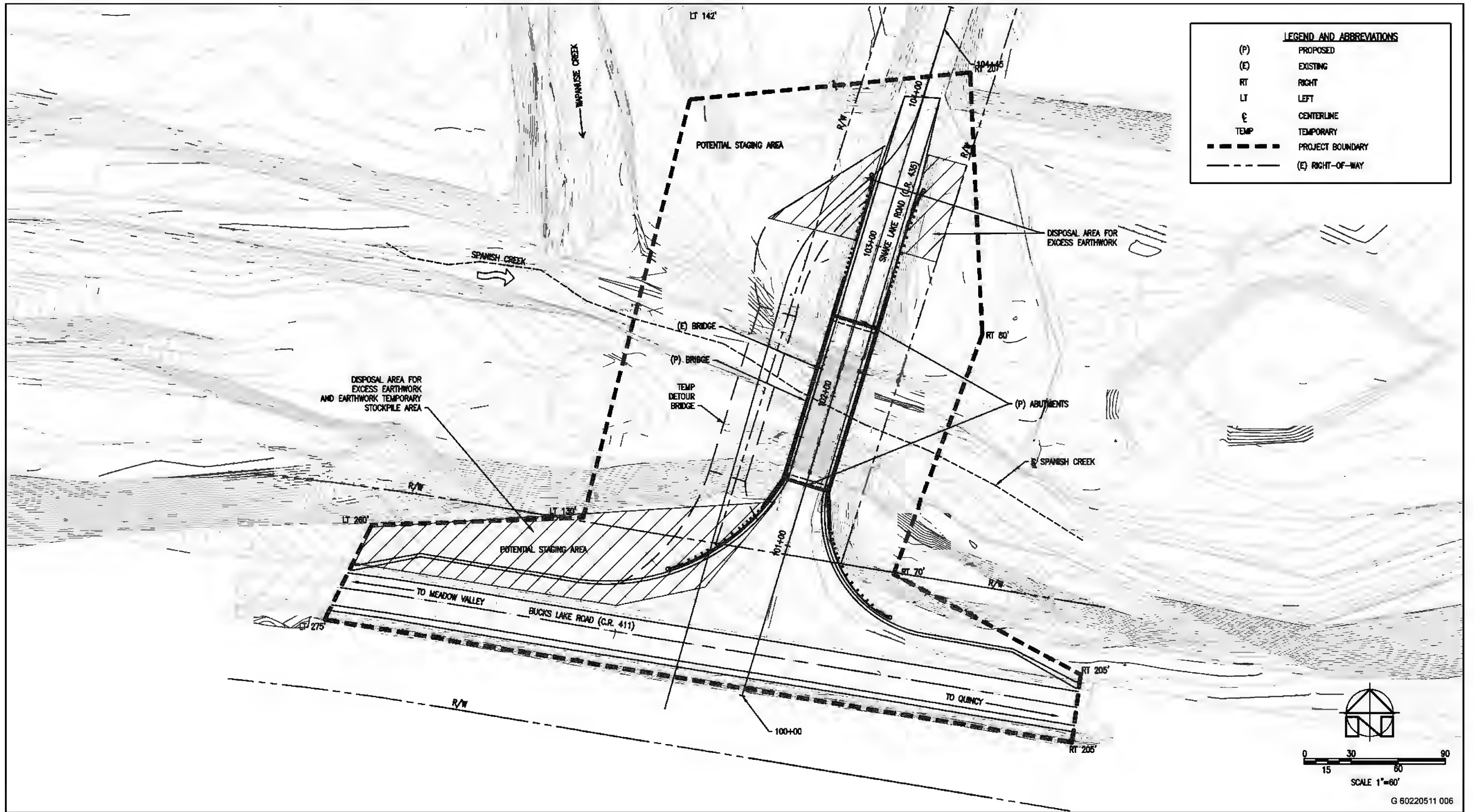
Construction associated with the permanent bridge over Snake Lake Road will include excavation for the abutments, removal of a portion of the existing approach fills, widening of approach fills, and excavation to create a floodplain terrace adjacent to the creek. The excavation for the abutments will require excavation beyond the depth of



Source: AECOM 2013

Figure 2-1

Regional Location



Source: MGE Engineering 2013

Figure 2-2

Project Overview

anticipated scour to a total depth of 20 to 30 feet. Should dewatering be required to allow for construction, water removed would be pumped to a temporary settlement pond to remove sediments and other contaminants.

The existing approach fill between the bridge abutments will be removed to create a bench to serve as a floodplain terrace. The purpose of the floodplain terrace is to reduce stream velocity through the bridge opening during periods of high flow in the Spanish Creek. A similar terrace would be created for a distance of approximately 120 feet along the north bank of the creek. All excavation to create the floodplain terrace would be done in the dry area outside and above the low water channel.

Excavation of additional materials beyond those anticipated for use at the site total approximately 1,500 cubic yards. This excess material will be off-hauled to the USFS Twain disposal site, where it will be placed and stabilized in accordance with an approved reclamation plan. The Twain disposal site is subject to an agreement between the United States Forest Service (USFS) and the California Department of Transportation (Caltrans) for materials disposal. Under the terms of the agreement, Caltrans will allow use of this site by the County for disposal of earthen material from the Snake Lake Road Bridge replacement project. No more than 100 to 150 truck trips of less than 43 miles round trip are anticipated to transport the excess excavation material to this site. Because the Twain disposal site has been evaluated and permitted for the proposed activities, the site and its proposed use for disposal is not addressed further in this document. Information regarding the Twain disposal site is provided in Appendix A of this report.

2.3 REQUIRED PERMITS AND APPROVALS

Pursuant to Section 15074 of the State CEQA Guidelines, the Plumas County Planning Department, as the Lead Agency will consider the findings of this IS/MND together with any comments received during the public review process in its decision on whether to adopt the proposed MND.

The proposed project would also be required to comply with the following federal and state regulations and permit requirements:

- ▶ National Environmental Policy Act (NEPA). Because the project would be financed in part by federal transportation funds, it is subject to compliance with NEPA as administered by Caltrans on behalf of the Federal Highway Administration (FHWA). The proposed project's compliance with NEPA will likely require completion of a categorical exclusion determination by Caltrans. The proposed project's compliance with NEPA is separate from compliance with CEQA and is not discussed further in this IS/MND.
- ▶ Section 7 of the federal Endangered Species Act (ESA). Federal agencies must consult with the National Marine Fisheries Service for marine and anadromous species, or the USFWS for fresh-water and upland wildlife, if they are authorizing, funding, or carrying out an action that may affect federally listed species or their designated habitat. Because the project would be financed in part by federal transportation funds, it is also subject to compliance with Section 7 of the ESA as administered by Caltrans on behalf of FHWA.
- ▶ Section 106 of the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires federal agencies to take into account the effects on historic properties resulting from actions they are authorizing,

funding, or carrying out. Because the project would be financed in part by federal transportation funds, it is subject to compliance with Section 106 of the NHPA as administered by Caltrans on behalf of FHWA.

- ▶ Section 404 of the federal Clean Water Act (CWA). Section 404 establishes a program to regulate the discharge of dredged and fill material into waters of the United States, including wetlands. Responsibility for administering and enforcing Section 404 is shared by the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA). General permits are often issued by USACE for categories of activities that are similar in nature and would have only minimal individual or cumulative adverse environmental effects. General permits can be issued on a nationwide ("nationwide permit") or regional ("regional general permit") basis. It is anticipated that the proposed project's compliance with Section 404 of the CWA would be authorized under Nationwide Permit 14 —Linear Transportation Projects.
- ▶ Section 401 of the Clean Water Act. Section 401 specifies that any applicant for a federal license or permit to conduct any activity, including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters, shall provide the federal licensing or permitting agency a certification from the state in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate and that any such discharge will comply with the applicable provisions of the Clean Water Act. It is anticipated that the proposed project will be required to obtain a water quality certification from the Central Valley Regional Water Quality Control Board (CVRWQB).
- ▶ Fish and Game Code Section 1602. Section 1602 requires any person, state or local governmental agency, or public utility to notify the California Department of Fish and Wildlife (CDFW) before beginning any activity that will substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Fish and Game Code section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. It is anticipated that the proposed project will be required to obtain Streambed Alteration Agreement from CDFW to comply with Section 1602.

3 ENVIRONMENTAL CHECKLIST

1. Project Title: Snake Lake Road Bridge Replacement Project
2. Lead Agency Name and Address: Plumas County Planning Department
555 Main Street
Quincy, CA 95971
3. Contact and Phone Number: James Graham,
Senior Planner
(530) 283-6169
4. Project Location: Plumas County
5. Project Sponsor's Name and Address: Same as above
6. General Plan Designation: Timber Resource Land
7. Zoning: General Forest (GF)
8. Description of Project: See Chapter 2, Project Description
9. Surrounding Land Uses and Setting: See Chapter 2, Project Description
- 10: Other public agencies whose approval is required: See Chapter 2, Project Description

3.1 AESTHETICS

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| I. Aesthetics. Would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.1.1 ENVIRONMENTAL SETTING

The project site is located along Spanish Creek at the intersection of Bucks Lake Road and Snake Lake Road, approximately 5 miles west of the town of Quincy. The proposed project would replace the existing Snake Lake Road Bridge over Spanish Creek. The bridge was constructed in 1969 and originally spanned Rock Creek on Bucks Lake Road, but was salvaged and installed at its present location in 1975.

The project site predominantly consists of Snake Lake Road and Spanish Creek and areas adjacent to the roadway right-of-way that could potentially be affected by project construction (e.g., staging areas). The project site is mostly flat and is at an elevation of approximately 3,650 feet. The terrain surrounding the project site is hilly surrounding the small valley in which the project site is located.

The visual landscape in the project area is primarily undeveloped but also includes some areas of development. Developed areas include the existing roadway and bridge structure, Gopher Hill Landfill (closed) located approximately one-third mile northeast of the project site, and a residence located approximately 4,000 feet west of the project site. No other developed uses are located in the project vicinity.

Within the project vicinity, Spanish Creek, is a perennial, relatively fast flowing low-gradient stream comprising of a series of braided channels within a relatively wide floodplain and an established riparian corridor. The low-water channels are characterized by large cobble substrates and are sparsely vegetated. The higher areas between the low-flow channels and the channel banks support dense wetland vegetation.

Spanish Ranch, located approximately one mile west of the project site, is identified in the County’s General Plan as a scenic area (Plumas County 1998). Additionally, Meadow Valley and Meadow Valley School, located nearly two miles southwest of the project site, are identified in the County’s General Plan as historical buildings (Plumas County 1998). County Road 413 (Spanish Ranch Road), located approximately one half-mile west of the project site, is considered a scenic road by the County (Plumas County 1998), though it is not officially designated as a state scenic roadway (Caltrans 2013).

3.1.2 DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

No Impact. The project site is located in a relatively flat area surrounded by valley slopes, resulting in a limited viewshed. Construction of the proposed project would occur within and adjacent to the existing river channel and within the existing roadway right-of-way. Upon completion of construction, the new bridge would replace the existing bridge. The new bridge would be slightly larger than the existing bridge, but would not include features that would result in the obstruction of scenic vistas. Therefore, the proposed project would have no impact on scenic vistas.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no designated state scenic highways in Plumas County (Caltrans 2013). Therefore, the proposed project would not affect views to or from a state scenic highway. There would be no impact on scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact. As discussed above, the project site is largely undeveloped with the exception of Snake Lake Road, Bucks Lake Road, and the existing bridge structure. The area surrounding the project site is also mostly undeveloped. Within the project vicinity, Spanish Creek is a perennial stream with a relatively wide floodplain and riparian corridor.

Construction activities would include construction of a temporary detour bridge, excavation, and construction staging. These impacts would be temporary in nature and would not extend beyond the anticipated single season of construction activities.

The replacement bridge would be slightly longer and wider than the existing bridge, but would be constructed from materials similar to the existing bridge. Because the replacement bridge and surrounding area would look essentially similar to the existing conditions, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Existing sources of light and glare in the project area include vehicle head and tail lights and reflections from the existing bridge structure. The new bridge structure would replace the existing bridge structure and the roadway alignment would stay approximately the same. No light fixtures would be installed as part of the proposed project. Replacement of the bridge structure would not generate any additional traffic (e.g., additional vehicle headlight) or light or glare. Therefore, the proposed project would have no impact related to creating a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

3.2 AGRICULTURAL AND FOREST RESOURCES

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| II. Agricultural and Forest Resources. | | | | |
| Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.2.1 ENVIRONMENTAL SETTING

The proposed project would be constructed largely within the footprint of the existing bridge. The project site is zoned General Forest (GF) under the Plumas County Code of Ordinances. Under the existing General Plan (1984), the project site is designated as Timber Resource Land. The nearest agricultural lands are located approximately two-thirds of a mile east of the project site. The project site and immediate area are identified as “Public, Trust, and Conservation Land” under the Williamson Act program (DOC 2010). The nearest timberland zone is located approximately three-quarters or a mile east of the project site.

3.2.2 DISCUSSION

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The project site is not designated by the Farmland Mapping and Monitoring Program as Prime Farmland, Farmland of Statewide or Local Importance, or Unique Farmland. Therefore, there would be no impact.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. As discussed above, the project site is not currently used for agricultural purposes, is not designated by the County for agricultural use, and is not zoned for agricultural use. Therefore, there would be no impact.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Less than Significant Impact. As discussed above, the project site is zoned General Forest (GF). The proposed project would replace an existing bridge and would not conflict with the GF zoning. The project site does not include land designated or zoned for timberland use. Therefore, the proposed project would have a less-than-significant impact related to zoning conflicts for forest or timber land.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less-than-Significant Impact. The proposed project would replace an existing bridge on a public roadway. The proposed project would not result in loss of forest land or conversion of forest land to non-forest use as the project site is already substantially developed with the existing bridge and roadway. Therefore, the proposed project would have no impact related to the loss or conversion of forest land.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. See responses a) and d) above.

3.3 AIR QUALITY

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| III. Air Quality. | | | | |
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. | | | | |
| Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.3.1 ENVIRONMENTAL SETTING

The proposed project is located within unincorporated Plumas County where air quality is regulated by the Northern Sierra Air Quality Management District (NSAQMD). NSAQMD attains and maintains air quality conditions in Plumas, Sierra, and Nevada Counties through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of NSAQMD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. NSAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the Clean Air Act, Clean Air Act Amendments, and California Clean Air Act. The attainment status of Plumas County with respect to the California and national ambient air quality standards is shown in Table 3.3-1.

As shown in Table 3.3-1, Plumas County is in nonattainment for particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀) CAAQS, and is in attainment or unclassified for the remaining CAAQS and NAAQS. In Plumas County, approximately 96% of PM₁₀ is generated from miscellaneous processes such as unpaved and paved road dust, residential fuel combustion, managed burning and disposal, and construction and demolition processes (ARB 2009).

**Table 3.3-1
Attainment Status of Plumas County with Respect to the California and National
Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Attainment Status | National Attainment Status |
|---|-----------------------------|------------------------------|----------------------------|
| Ozone | 1-hour | U | — |
| | 8-hour | U | U/A |
| Carbon Monoxide (CO) | 1-hour | A | U/A |
| | 8-hour | A | U/A |
| Nitrogen Dioxide (NO ₂) | Annual Arithmetic Mean | — | U/A |
| | 1-hour | A | U/A |
| Sulfur Dioxide (SO ₂) | Annual Arithmetic Mean | — | U |
| | 24-hour | A | U |
| | 3-hour | — | — |
| | 1-hour | A | U |
| Respirable Particulate Matter (PM ₁₀) | Annual Arithmetic Mean | N | — |
| | 24-hour | N | U |
| Fine Particulate Matter (PM _{2.5}) | Annual Arithmetic Mean | U | U/A |
| | 24-hour | — | U/A |
| Lead | 30-day Average | A | U/A |
| | Calendar Quarter | — | U/A |
| Sulfates | 24-hour | A | — |
| Hydrogen Sulfide | 1-hour | U | — |
| Visibility Reducing Particles | 8-hour (10:00 to 18:00 PST) | U | — |
| Notes: N = nonattainment; A = attainment; U/A = unclassifiable/attainment; U = unclassified; — = no standard Source: ARB 2013 | | | |

3.3.2 DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The NSAQMD regulates regional air quality by enforcing rules and regulations, issuing air quality permits, and developing air quality plans. Air quality plans are developed with input from local metropolitan planning organizations and are designed to attain and maintain ambient air quality standards. Air quality plans consider the existing emissions profile and projected growth of a region (based on local general plans), which are evaluated along with proposed mitigation measures to determine if the region would attain ambient air quality standards. Local general plans forecast changes in population, jobs, and infrastructure, including roads. Projects that would not be consistent with the assumptions of a general plan or that would develop a more intensive land use that is planned for in a general plan would also be considered inconsistent with the applicable air quality plan.

The proposed project is not a residential, commercial, or industrial land use that would affect local or regional population or jobs. Rather, the proposed project would replace the existing Snake Lake Road Bridge. Although this would be considered a change in roadway infrastructure, the proposed project would not increase the bridge's capacity and therefore would not generate additional vehicle miles traveled (VMT), which could occur with increased roadway capacity. Therefore, the proposed project would not conflict with any of the assumptions in the applicable general plan and would not exceed any VMT estimates accounted for in the current air quality plan. Thus, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. The impact is less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant with Mitigation Incorporated. The proposed project would generate emissions associated with the construction of the new bridge. Construction emissions would be considered short-term and temporary emissions because all construction emissions would cease following completion of the proposed project. Following construction activities, operational emissions associated with vehicles traveling on the Snake Lake Road Bridge would continue. However, because the proposed project is neither a capacity-increasing project nor a land use development project, it is not anticipated that implementation of the project would result in a net increase in VMT in the region. Therefore, no net increase in long-term operational emissions is anticipated to occur. Thus, only the construction emissions are further evaluated below.

Construction

Construction emissions are considered short-term and temporary in nature, but have the potential to represent a significant impact with respect to air quality. Fugitive particulate matter dust emissions are among the pollutants of greatest concern with respect to construction activities. These emissions from construction activities can lead to adverse health effects and nuisance concerns, such as reduced visibility and soiling of exposed surfaces. Cut and fill operations along with general site grading operations are the primary sources of fugitive particulate matter dust emissions from construction activities. Movement of vehicles on unpaved roads also can generate fugitive particulate matter dust emissions, by kicking up ground particulate matter dust into the atmosphere. Construction fugitive particulate matter dust emissions can vary greatly, depending on the level of activity, the specific operations taking place, the number and types of equipment operated, vehicle speeds, local soil conditions, weather conditions, and the amount of earth disturbance (e.g., site grading, excavation, cut-and-fill).

Emissions of ozone precursors, reactive organic gases (ROG) and oxides of nitrogen (NO_x), are primarily generated from mobile sources (i.e., delivery vehicles, construction worker vehicles) and off-road construction equipment. Generation of these emissions vary as a function of vehicle trips per day associated with delivery of construction materials, the importing and exporting of soil, vendor trips, and worker commute trips, and by the types and number of heavy-duty, off-road equipment used and the intensity and frequency of their operation.

Construction activities for the proposed project are anticipated to occur for approximately five months. During this time, daily localized construction emissions would fluctuate as function of construction activities (e.g., amount of cut/fill volume, number of construction vehicles operating, number of haul trucks). Considering the short-term nature of construction activities and the fact that the project site is fairly small (2.16 acres), it is not

anticipated that construction activities would be extensive and thus emissions associated with project construction would be expected to remain below NSAQMD's emissions thresholds.

Nevertheless, because the project would involve some cut/fill operations and grading, emissions of fugitive particulate matter (PM) dust has the potential to contribute to the region's PM₁₀ nonattainment status. Therefore, in order to minimize the project's fugitive PM dust emissions, implementation of the following mitigation measure would reduce dust emissions associated with construction.

Mitigation Measure AIR-1: The project contractor, on behalf of Plumas County, shall prepare a dust control plan for construction activities at the project site pursuant to the requirements of the NSAQMD. The project contractor shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of construction and maintenance activities at the project site. The dust control plan shall include, at a minimum, the following measures:

- ▶ All visibly dry disturbed soil road surfaces shall be watered to minimize fugitive dust emissions.
- ▶ All unpaved surfaces, unless otherwise treated with suitable chemicals or oils, shall have a posted speed limit of 10 miles per hour.
- ▶ Earth or other material that has been transported by trucking or earth moving equipment, erosion by water, or other means onto paved streets shall be promptly removed.
- ▶ Asphalt, oil, water or suitable chemicals shall be applied on materials stockpiles, and other surfaces that can give rise to airborne dusts.
- ▶ All earthmoving activities shall cease when sustained winds exceed 15 miles per hour.
- ▶ The operator shall take reasonable precautions to prevent the entry of unauthorized vehicles onto the site during non-work hours.
- ▶ The operator shall keep a daily log of activities to control fugitive dust.
- ▶ Precautions shall be taken to prevent transported material from becoming airborne. Such precautions may include covering or applying water on the transported material.

Implementation of Mitigation Measure AIR-1 would reduce the proposed project's construction-related emissions to a less-than-significant level.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-Significant Impact. Both short-term construction and long-term operational emissions associated with the proposed project are not anticipated to result in project-level impacts. Construction emissions would cease following completion of the proposed project and the construction contractor would be required to implement Mitigation Measure AIR-1 to minimize any potential impacts related to fugitive dust. Operational emissions would not result in a net increase in emissions beyond existing conditions. In addition, as described in response a) above, the proposed project would not conflict with the local general plan or applicable air quality plan. Therefore, the proposed project would not generate a cumulatively considerable contribution of regional air quality pollutants in the project area for which the region is nonattainment under a state or federal ambient air quality standard. Therefore, the project would not result in a cumulatively considerable significant impact.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated. The proposed project would generate criteria air pollutant emissions (e.g., carbon monoxide [CO] and particulate matter with aerodynamic diameter less than 2.5 microns [PM_{2.5}]) that can affect sensitive receptors on a localized level. Pollutants of highest concern that can affect receptors on a localized level include diesel PM, CO, and naturally occurring asbestos (NOA).

Diesel PM

Construction of the project would result in the generation of diesel PM emissions from the use of off-road diesel equipment for earthmoving activities and bridge construction. Diesel PM has been classified as a toxic air contaminant (TAC) by the California Air Resources Board (ARB) because even acute exposure can have potential health impacts. ARB has also determined that a buffer distance of 1,000 feet from distribution centers and 500 feet from freeways, which are similar to a construction site with diesel equipment and vehicle activities, can be effective in reducing exposure by as much as 80% and 70%, respectively (ARB 2005). The nearest sensitive receptor is a residence located approximately 4,000 feet west of the project site and therefore not subject to acute exposure. Furthermore, construction emissions would be dispersed over the approximately 5-month duration of construction, which is less than 0.5% percent of the typical exposure period for a health risk assessment (i.e., 70 years). Therefore, because construction activities are not anticipated to be highly intensive through the duration of the project, sensitive receptors are located farther than the generally-accepted safe distance from the project site (i.e., more than 1,000 or 500 feet), and because of the relatively short duration of exposure, the proposed project's construction emissions would not generate a significant TAC impact (i.e., greater than 10 in one million cancer risk or greater than one hazard index). The impact would be less than significant.

CO Hotspots

During project construction, materials, equipment, and construction workers would be transported to the work site using regional roadways from various locations. The mobilization phase would include the highest volume of vehicle trips traveling to the work site to deliver construction equipment and materials. However, due to the small size of the proposed project, it is not anticipated that a substantial volume of construction-related trips would be generated during mobilization or export of cut materials. In order to provide a quantitative context for the project, the Sacramento Metropolitan Air Quality Management District's (SMAQMD) screening volume for CO hotspots can be considered. Although the proposed project is not located in SMAQMD's jurisdiction, the screening threshold has been developed using conservative assumptions (e.g., worst-case meteorology, nearest possible sensitive receptors) and could also be an applicable screening tool for Plumas County projects. SMAQMD has developed a screening threshold of 31,600 vehicles per hour under which intersections would not be considered to have the potential to generate localized exceedances of the State or federal CO ambient air quality standard (SMAQMD 2013:4-8). The project's maximum hourly construction vehicle volumes are not expected to exceed or make a substantial (i.e., 5 percent or 1,580 vehicle trips per day) contribution to the screening level volumes at locally affected intersections. In addition, the project site is located in unincorporated Plumas County, which does not typically have high-density, congested areas where CO hotspots are more likely to occur because of the combination of vehicle volume and congestion. Therefore, the project would not be expected to generate or substantially contribute to a localized CO hotspot. The impact would be less than significant.

Naturally Occurring Asbestos

The project site is not located in an area of Plumas County that is known to contain serpentinite and/or ultramafic rock, which may contain chrysotile asbestos or other asbestos minerals. NOA is a human health hazard when airborne. NOA can be released into the atmosphere from serpentinite and ultramafic rocks when the ground materials are disturbed through excavation and grading activities. Although the proposed project would include grading and cut/fill activities, it is not anticipated to generate NOA emissions because the project site is not located in an area known to contain NOA. However, because NOA maps used to determine where NOA occurs naturally do not always provide a high level of accuracy at small scales, the following mitigation measure would be required if NOA is detected within the project site prior to or during construction.

Mitigation Measure AIR-2: If serpentine rock is found in the area, the presence of asbestos, in the chrysotile or amphibole forms shall be determined, and mitigation on a site-specific basis shall be identified. Construction Plans for this project shall include a note stating: “If serpentine, ultramafic rock or naturally occurring asbestos is discovered during any grading or construction activity, work shall stop immediately and the Northern Sierra Air Quality Management District shall be contacted to determine compliance with the approved Airborne Toxic Control Measures for naturally occurring asbestos.

Although it is unlikely that NOA would be encountered during construction activities, implementation of Mitigation Measure AIR-2 would ensure that NOA emissions would be minimized and this impact would remain less than significant.

Implementation of Mitigation Measure AIR-2 would reduce potential NOA-related impacts to a less-than-significant level.

e) Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. The occurrence and severity of odor impacts depends on numerous factors including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and cause citizens to submit complaints to local governments and regulatory agencies. Projects with the potential to frequently expose individuals to objectionable odors are deemed to have a significant impact. Typical facilities that generate odors include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities.

Construction activities would generate diesel PM exhaust from heavy-duty trucks and off-road construction equipment, which can be considered offensive by some individuals. As described above, the project site would be located approximately 4,000 feet from the nearest residences. However, conversely from the typical odor sources listed above, project construction emissions would not be constantly generating odorous emissions. Construction activities would cease temporarily at night and completely following the 5-month period. The project would use typical construction techniques, and any odors generated would be temporary, short-term, and typical of most construction sites. Therefore, the intermittent and temporary construction activities are not expected to cause a significant odor impact on a substantial number of sensitive receptors. The project’s construction activities would not expose a substantial number of receptors to odor emissions. The impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

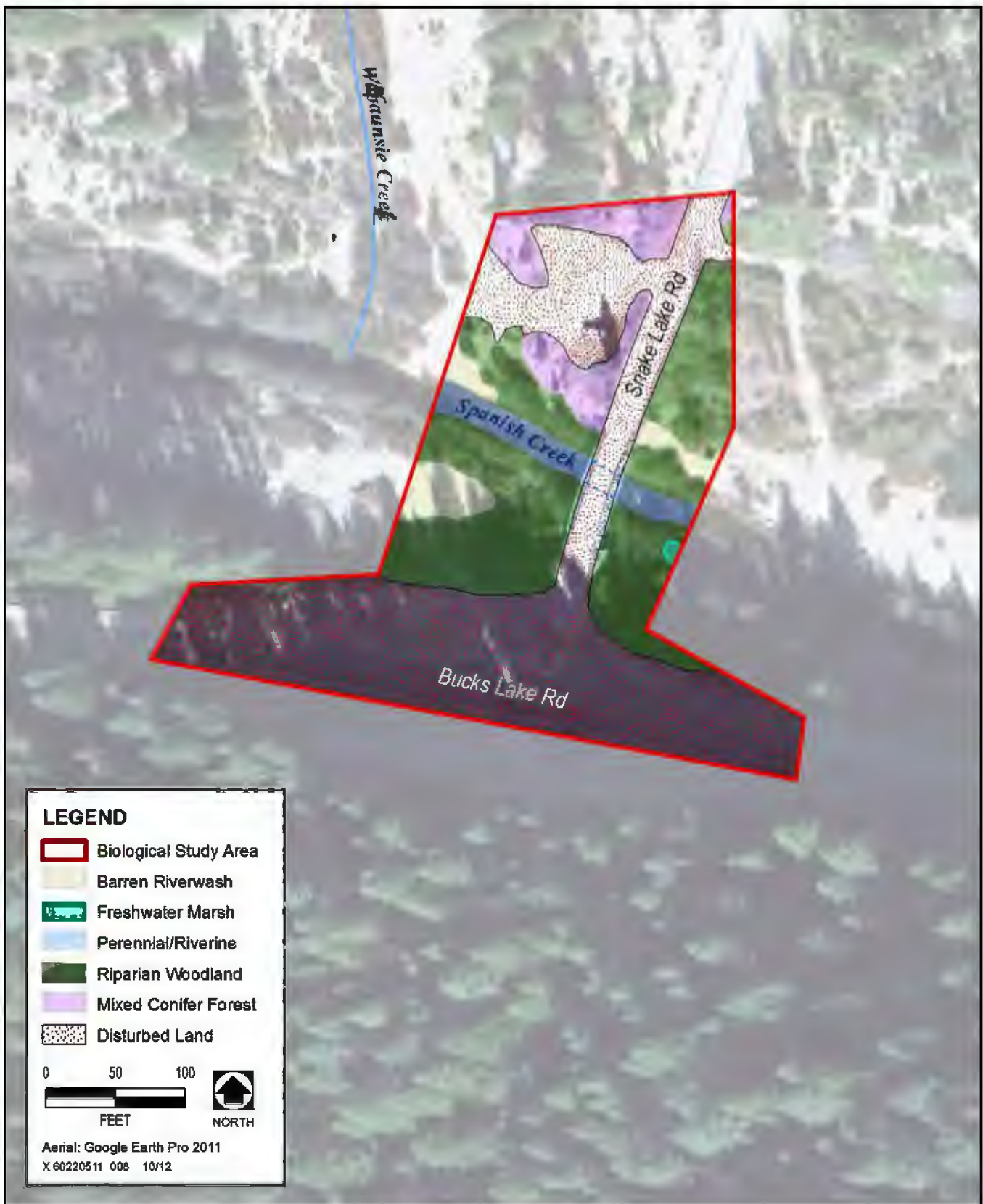
| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| IV. Biological Resources. Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.4.1 ENVIRONMENTAL SETTING

The biological resources setting for the proposed project is described in detail in the Natural Environment Study (NES) prepared for the proposed project (AECOM 2013a). The findings of that study are summarized below.

Habitat Types in the Project Area

The Biological Study Area (BSA) includes perennial riverine, riparian woodland, freshwater marsh, barren riverwash (alluvium), and mixed conifer forest habitat/vegetation communities. Other areas within the BSA include disturbed dirt and paved roads and parking areas. The extent of the habitats and other areas and the limits of the BSA are shown in Figure 3.4-1.



Source: AECOM 2012

Figure 3.4-1

Habitat and Land Cover Map

The perennial riverine area is characterized by the open water channel of Spanish Creek, a perennial creek, and by vegetation growing in and along the immediate edges of the channel including northern water plantain (*Alisma triviale*), torrent sedge (*Carex nudata*), Indian rhubarb (*Darmera peltata*), iris-leaved rush (*Juncus xiphioides*), water primrose (*Ludwigia sp.*), reed canarygrass (*Phalaris arundinacea*), and sandbar willow (*Salix exigua*). The open water provides habitat for a variety of fish species, while the banks provide habitat for waterfowl, shorebirds, herons, and other birds and wildlife. The American dipper (*Cinclus mexicanus*) is a fairly common bird found along clear, fast-moving streams.

The riparian woodland within the BSA occurs as a narrow, sometimes dense band of broad-leaved, winter deciduous trees and shrubs along the banks of Spanish Creek. Patches of riparian woodland also occasionally occur across higher areas of the floodplain. Within the dense vegetation, the understory is usually sparse, but open areas are characterized by a diverse assemblage of shrubs and herbaceous species. The canopy layer includes white alder (*Alnus rhombifolia*), arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*), and black cottonwood (*Populus balsamifera ssp. trichocarpa*). Shrub and herbaceous species along the creek include torrent sedge (*Carex nudata*), reed canarygrass (*Phalaris arundinacea*), naked sedge (*Scirpus microcarpus*), rose spirea (*Spiraea douglasii*), common yarrow (*Achillea millefolium*), mugwort (*Artemisia douglasiana*), Astragalus (*Astragalus sp.*), bachelor's button (*Centaurea cyanus*), common horsetail (*Equisetum arvense*), common velvetgrass (*Holcus lanatus*), iris-leaved rush (*Juncus xiphioides*), rush (*Juncus sp.*), prickly lettuce (*Lactuca serriola*), perennial sweet pea (*Lathyrus latifolius*), yellow sweetclover (*Melilotus officinalis*), slender phlox (*Microsteris gracilis*), common monkeyflower (*Mimulus guttatus*), English plantain (*Plantago lanceolata*), ribes (*Ribes nevadense*), Canada goldenrod (*Solidago canadensis*), red sandspurry (*Spergularia rubra*), hedge nettle (*Stachys sp.*), and tansy (*Tanacetum vulgare*).

The riparian woodland habitat provides high value for many wildlife species. Riparian habitat provides water, thermal cover, migration corridors, and diverse nesting and feeding opportunities. The linear nature of this habitat maximizes the development of edge habitat, and species that use it include amphibians, reptiles, birds, and mammals. On Spanish Creek, the foothill yellow-legged frog and the Sierra Nevada yellow-legged frog are two special-status species that use riparian habitat during their life cycles. Many common birds and mammals also utilize riparian vegetation for cover, feeding, and/or nesting. Examples of birds that are expected to use riparian habitat along Spanish Creek include flycatchers, chats, and warblers; examples of mammals include mule deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), black bear (*Ursus americanus*), and several species of bats. Riparian woodland habitat also supports a diverse assemblage of insects, which in turn, serve as an important food source to amphibians, fish, birds, and bats.

A small area of freshwater marsh approximately 8 x 10 feet in size is located downstream of Snake Lake Road Bridge on the southern bank. The wetland area is located on a low terrace that directly abuts an area of backwater on Spanish Creek and is dominated by hydrophytic plant species. The low terrace is approximately 1 foot higher in elevation than the area of backwater, and riparian vegetation dominated by white alder is located immediately upslope and creates a tree canopy layer that partially shades the wetland. The freshwater marsh vegetation is dominated by torrent sedge, reed canarygrass, naked sedge, and rose spirea.

Freshwater marsh habitat within the Sierra Nevada mountain range are highly productive and serve as important sources of food, cover, and reproductive habitat. The vegetative cover found in the streamside wetlands on

Spanish Creek is particularly important for amphibians and reptiles, but it also supports provides many of the same benefits to the same species of wildlife mentioned above in the description for riparian habitat.

Barren riverwash occurs within the BSA on the upper floodplain and consists of open areas of alluvium that are deposited during high flow events. Vegetation is absent or sparse due to the rocky substrate. Plant species observed occasionally included silver European hairgrass, perennial sweet pea (*Lathyrus latifolius*), slender wheatgrass (*Elymus trachycaulis*), English plantain (*Plantago lanceolata*), sandbar willow, and tansy (*Tanacetum vulgare*). This mostly barren habitat provides reduced value to wildlife, but can support a variety of insects and small reptiles that serve as a food source to larger wildlife.

Douglas fir (*Pseudotsuga menziesii*) and Ponderosa pine (*Pinus ponderosa*) are the only two conifers documented in the mixed conifer forest habitat in the BSA. Common shrubs and herbaceous species observed include silver European hairgrass (*Aira caryophyllea*), manzanita (*Arctostaphylos sp.*), mountain whitethorn (*Ceanothus cordulatus*), mahala mat (*Ceanothus prostratus*), rubber rabbitbrush (*Chrysothamnus nauseosus*), blue-eyed Mary (*Collinsia parviflora*), and two species of buckwheat (*Eriogonum spp.*). Mixed conifer forest supports a large number of common wildlife species. Special-status wildlife known to occur in this habitat include California spotted owl (*Strix occidentalis occidentalis*), pacific fisher (*Martes pennant*), bald eagle (*Haliaeetus leucocephalus*), and northern goshawk (*Accipiter gentilis*). The mixed conifer forest within the BSA, however, is sparse and disturbed due to human activity, including construction of paved and dirt roads and parking areas, tree removal, , mining etc. Therefore, the mixed conifer forest within the BSA provides low-quality habitat to wildlife and does not provide suitable habitat for special-status wildlife species.

Disturbed dirt roads, dirt parking areas, and paved roads occur within the BSA. Plant species found on these areas include black mustard (*Brassica nigra*), chicory (*Cichorium intybus*), thistle (*Cirsium sp.*), slender wheatgrass, rattail fescue (*Festuca myuros*), klamathweed (*Hypericum perforatum*), ox-eye daisy (*Leucanthemum vulgare*), bird's foot trefoil (*Lotus purshianus*), Kentucky bluegrass (*Poa pratensis*), and dandelion (*Taraxacum officinale*).

Disturbed land provides greatly reduced values to wildlife, but may provide some limited habitat to deer and rabbits, which forage along the edges of roads, to small mammals such as squirrels, and to common birds that forage on seeds.

Sensitive Natural Communities

Sensitive natural communities are those communities that are of special concern to resource agencies and conservation organizations for a variety of reasons, including their local or regional decline, or because they provide important habitat to common and special-status species. Many of these communities are tracked in California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), a statewide inventory of the locations and conditions of the state's rarest plant and animal taxa and vegetation types. Elimination or substantial degradation of these communities would constitute a significant impact under CEQA.

The sensitive natural communities within the BSA are perennial stream/riverine habitat, riparian woodland, and freshwater marsh. The perennial stream/riverine and freshwater marsh habitats are subject to USACE jurisdiction under Section 404 of the CWA (Clean Water Act) because they qualify as wetland or other waters of the United States. A wetland delineation for the project has been conducted and is included in the NES. The riparian

woodland habitat along Spanish Creek is subject to CDFW jurisdiction under Section 1602 of the California Fish and Game Code.

Special-Status Plants

Special-status plant species include those listed as endangered, threatened, or rare; and species proposed for listing by the U.S. Fish & Wildlife Service (USFWS) or CDFW. Special-status plant species also include those listed by the California Native Plant Society (CNPS) on lists 1 or 2 of the Inventory of Rare and Endangered Plants of California.

During initial screening for special-status plants with potential to occur in the project area, 37 special-status plant species were identified. A complete list of these species is included in Appendix D of the NES. Of the 37 species, 28 were eliminated from further evaluation because they are clearly restricted to substrates (serpentine, alkaline soils, granite, volcanic ash or metavolcanic substrate) or habitat types (sagebrush scrub, fen/bog wetlands) that do not occur on the BSA, or because they are only known to occur at elevations higher than that of the BSA. None of the 37 species are federal or state-listed as endangered or threatened. The remaining nine species occur in riparian woodland, freshwater marsh, or conifer forest habitat; however, upon closer review, only three of the nine species were determined to have potential to occur within the BSA, based on their specific habitat requirements. These three species, Sheldon’s sedge (*Carex sheldonii*), Quincy lupine (*Lupinus dalesiae*), and Long-leaved starwort (*Stellaria longifolia*) are listed in Table 2 below along with their status, habitat description, and the rationale to include them in the final analysis.

| Common Name | Scientific Name | Status | Habitat Description/Blooming Period | Habitat Status | Potential to Occur |
|----------------------|-----------------------------|-------------|--|----------------|--|
| Sheldon’s sedge | <i>Carex sheldonii</i> | CRPR 2.2 | Wet meadows, lakeshores, open, moist forests along streams BP: May-August | HP | Suitable habitat present in the BSA, but species was not observed during plant surveys |
| Quincy lupine | <i>Lupinus dalesiae</i> | CRPR 4.2 | Dry pine forest, openings, often disturbed sites BP: May-August | HP | Suitable habitat present in the BSA, but species was not observed during plant surveys |
| Long-leaved starwort | <i>Stellaria longifolia</i> | CRPR 2.2 | Bogs and fens, wet meadows and seeps, riparian woodland BP: May – August | HP | Suitable habitat present in the BSA, but species was not observed during plant surveys |

**Table 3.4-1
Special-status Plant Species with Potential to Occur in or near the BSA**

| Common Name | Scientific Name | Status | Habitat Description/Blooming Period | Habitat Status | Potential to Occur |
|---|-----------------|--------|---|----------------|--------------------|
| Status: California Rare Plant Ranks (formerly known as CNPS Lists): CRPR 1B = Plants rare, threatened or endangered in California and elsewhere, eligible for State listing, CEQA review is mandatory CRPR 2 = Plants rare, threatened or endangered in California but more common elsewhere, eligible for State listing, CEQA review is mandatory; CRPR 4 = Plants of limited distribution – A watch list, few if any are eligible for State listing, CEQA review is not required but is strongly recommended CRPR Suffixes (.1, .2, .3) for all rankings = .1 = Seriously endangered in California, .2 = Fairly endangered in California, .3 = Not very threatened in California | | | Notes: HP - Habitat is or may be present; species may be present BP – Blooming period | | |
| Source: CNDDDB 2012, CNPS 2012, USFWS 2012, Jepson 2011 | | | | | |

Summer and fall special-status species plant surveys conducted on the project site to date have resulted in negative findings for all target species; therefore special-status plant species are assumed to be absent in the project area at this time. Results of these surveys have been documented in the NES and a complete list of all plant species observed during surveys is included in Appendix C of the NES.

Special Status Wildlife

Special-status wildlife species include those listed by USFWS under the federal Environmental Species Act and by the CDFW under the California Endangered Species Act. Additional species receive federal protection under the Migratory Bird Treaty Act (MBTA) and state protection under CEQA Section 15380(d) and sections of the Fish and Game Code related to ‘fully protected species.’

Of the 19 special-status wildlife species evaluated for their potential to occur in the BSA based on initial screening conducted for the NES, four species were eliminated from further consideration because they have no formal federal, state, or CDFW listing but appear in the database search results due to global or state-rank, which is a reflection of the overall status (rarity, threat, and trend factors) of a species within its global or state range. The four species eliminated included one aquatic beetle and four myotis bat species. The 15 remaining species comprise seven bird, five mammal, and three amphibian species; however, upon closer review, only four of the 15 species were determined to have potential to occur within the BSA, based on specific habitat requirements. These four species along with their status, habitat description, and the rationale to include them in the final analysis are listed below in Table 3.4-2; all 15 species are included in a special-status species table in Appendix D of the NES.

Table 3.4-2 below contains information on the status and potential for occurrence of those special-status wildlife species determined to have potential to occur on the project site. Potential impacts on these species resulting from project implementation are discussed in detail in the NES and are summarized in the impact discussion below.

**Table 3.4-2
Special-status Wildlife Species with Potential to Occur in or near the BSA**

| Common Name | Scientific Name | Status | Habitat Description | Habitat Status | Potential to Occur |
|--|---------------------------|-----------------|--|----------------|--|
| Pallid bat | <i>Antrozous pallidus</i> | SSC, FS | Roosts on cliffs, rocky outcrops, tree hollows and crevices with access to open dry areas for foraging; has also been found in riprap, bridges, and buildings; roosts must protect bats from high temperatures | HP | Could roost in Snake Lake Road Bridge abutments if temperatures inside remain low enough through summer; trapped Hwy. 89 bridge over Spanish Creek in 2007, just over 4 miles downstream of BSA. |
| Yellow warbler | <i>Dendroica petechia</i> | SSC | Nests in a variety of habitats, but is found primarily in montane and valley foothill riparian woodland | HP | Could occur in BSA; no CNDDDB occurrences are documented within 3 miles of BSA, but suitable habitat is present |
| Foothill yellow-legged frog | <i>Rana boylei</i> | SSC, FS | Shallow, flowing streams with cobble-sized substrate | HP/P | Could occur in BSA; documented in Spanish Creek less than 1 mile downstream of BSA during 2002 herpetofauna surveys |
| Sierra Nevada yellow-legged frog | <i>Rana sierra</i> | FC; SC, SSC, FS | Shallow, flowing streams with cobble-sized substrate; and in ponds, lakes | HP/P | Could occur in BSA; documented in Pineleaf Creek and Bean Creek, tributary streams approximately 2 miles upstream from BSA. |
| Status: FC = Federal candidate for listing SC = State candidate for listing SSC = Species of Special Concern (CDFW) FS = Forest sensitive species (USFS) | | | Notes: HP - Habitat is or may be present; species may be present P - the species is known to be present | | |
| Source: CNDDDB 2012, CNPS 2012, USFWS 2012, Jepson 2011 | | | | | |

3.4.2 DISCUSSION

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?**

Potential Impacts on Special-status Plant Species

Less-than-Significant Impact. Based on database searches, literature review, and coordination with local USFS botanists, three special status plant species: Sheldon’s sedge (*Carex sheldonii*), Quincy lupine (*Lupinus dalesiae*),

and long-leaved starwort (*Stellaria longifolia*) have the potential to occur within or adjacent to the BSA. However, none of these targeted species were documented during the three plant surveys that were conducted for the proposed project. Therefore these species were determined to be absent from the project site at this time, and impacts on these special-status species would be less-than-significant.

Potential Impacts on Pallid Bat

Less than Significant with Mitigation Incorporated. Pallid bat (*Antrozous pallidus*) is a California species of special concern. Its roosts consist of cliffs, rocky outcrops, tree hollows and crevices, and they occasionally roost in riprap, buildings, and under bridges. Roost sites must have access to open dry areas for foraging and must protect bats from high temperatures. Maternity colonies of 12 to 100 individuals form in early April and young are born between April and July. Males may roost independently or with the colony. Pallid bats are very sensitive to disturbance at the roost, and with repeated disturbance they may abandon a site. Pallid bat occur from southern British Columbia to Baja California and east as far as Texas and Kansas. The species occurs in the Sierra Nevada forests.

The Snake Lake Road Bridge abutments, which have substantial vertical openings near the top of the abutments, appear to lead deeper into rocky cavities that could provide roosting habitat for Pallid bat. While maternal roosting is unlikely due to regular human disturbance around the bridge and motor vehicles driving over the bridge, daytime or nocturnal roosting could occur from spring through fall when the species is active. Nocturnal roosting, which occurs in short intervals between feeding and usually at sites different than daytime and hibernaculum roosting sites, would not be adversely affected by the project since construction would only occur during daytime hours. During wildlife surveys conducted in the summer and fall of 2011, no bat guano was observed on or inside the bridge abutments, and during an evening/dusk survey conducted in early November, no bats were observed exiting the abutments. No large hardwood trees or other roost sites were documented within or immediately adjacent to the BSA. The closest and only CNDDDB occurrence of pallid bat within 5 miles of the BSA was documented in 2007 at a bridge on Highway 70/89 that spans Spanish Creek. The bridge is located 4 miles downstream of the BSA and just west of Gansner Park. The record indicates that 12 adults were mist netted during the month of July, but no maternal roost sites were documented. While the project site does not appear to provide high-quality roosting habitat, there is at least some potential that pallid bat could occupy the abutments for daytime roosting during their active season and/or for hibernation through the winter and into the spring. Implementation of Mitigation Measure BIO-1 would reduce impacts to these species to a less-than-significant level.

Mitigation Measure BIO-1:

A focused survey to determine if daytime or maternal roosting by pallid bats is taking place at the bridge shall be conducted by a qualified biologist within 15 days prior to commencement of construction-related activities. If no active roosts are found, no further action will be necessary.

If either a daytime or maternity roosting is documented, the County shall consult with CDFW regarding biological significance of the bat population and appropriate measures to exclude bats from roosting under the bridge. Suitable exclusionary materials may include netting, poly sheeting, foam filling (for crevices), or other mechanical devices. If deemed necessary, the County or its construction contractor shall implement those measures recommended by CDFW prior to construction.

Potential Impacts to Special-Status and Common Migratory Birds

Less than Significant with Mitigation Incorporated. Project-related activities have the potential to directly or indirectly affect foraging and/or nesting habitat for special-status and common migratory bird species. The removal of foraging habitat has the potential to adversely affect nesting by these species.

Species of migratory birds, some listed as special-status species, could use riparian habitat within the BSA for foraging and possibly nesting. The only special-status species identified from database searches within a three-mile radius of the project site that could potentially nest in riparian habitat is the willow flycatcher (*Empidonax traillii*); however, this species nests in willow and alder thickets in wet meadows and along low gradient perennial streams. According to one local researcher, nesting and foraging habitats are generally meadows larger than 10 acres with stringers of willows and other shrubs generally covering over 20 to 30 percent of the area; suitable habitat that is likely to foster successful reproduction includes a combination of vegetation and hydrological factors, specifically clumps of mature willow shrubs surrounded by a depression that holds standing water during the early summer breeding season. Yellow warbler, which is a State species of special concern, did not appear in database searches but was highlighted by USFS biologists as a species that could potentially occur within the BSA. Yellow warbler is a summer migrant in California that typically occurs in riparian woodland along streams and in wet meadows. In the western and northern Sierra Nevada, it also has been documented nesting in xeric montane shrub fields and occasionally in the shrubby understory of mixed-conifer forest.

The riparian woodland within the BSA is characterized by a narrow, sometimes dense band of broad-leaved, winter deciduous trees and shrubs composed primarily of white alder and willow species. The understory is generally sparse, but diverse assemblage of shrubs and herbaceous species occur in openings. The location of the project site and the adjacent parking area and mining activity also add a level of disturbance that likely decrease the suitability of nesting habitat.

With the exception of the July 28, 2011 survey, the wildlife surveys in the BSA were conducted outside of the nesting season. The riparian habitat observed within the BSA is not suitable for willow flycatcher; however, the habitat is suitable for yellow warbler and other common migratory birds that nest and forage in riparian habitat and therefore the proposed project has the potential to adversely affect these species, if present. This impact is potentially significant. Implementation of Mitigation Measure BIO-2 below would reduce impacts to these species to a less-than-significant level.

Mitigation Measure BIO-2: The following measures to avoid and minimize potential impacts to yellow warbler and other migratory birds will be implemented:

The County shall retain a qualified biologist to conduct preconstruction surveys to identify active yellow warbler or other migratory bird nests within and immediately adjacent to the BSA. Preconstruction surveys shall be conducted during the nesting season (April 1 through July 31) no more than 15 days before any construction activity begins. If no nests are found, the results of the survey shall be documented in a report to the County, and no further action is required. Any construction activity that occurs between August 1 and March 14, outside the nesting season, shall not require preconstruction surveys.

If nests are located, impacts shall be avoided by establishing 250-foot or other appropriate buffers around active nest sites and no new project activity shall occur within the buffer areas until the young have fledged, until the nest is no longer active, or until a qualified biologist has determined in consultation with

CDFW that reducing the buffer would not result in nest abandonment. Monitoring of the nest by a qualified biologist during construction activities shall be required to ensure that nests are not jeopardized.

Potential Impacts on Foothill Yellow-legged Frog

Less than Significant with Mitigation Incorporated. Foothill yellow-legged frog is a State species of special concern. It occurs in shallow, flowing streams with rocky substrate. Tadpoles are primarily herbivores, grazing on algae and diatoms, and adults feed on aquatic and terrestrial invertebrates.

Foothill yellow-legged frogs mate and lays eggs exclusively in streams and rivers. The timing and duration of breeding varies geographically and across populations, but generally occurs from mid-March to May and lasts for about two weeks. Oviposition sites are generally shallow, slow-moving water with a cobble or gravel substrate that is used to anchor each egg mass. On occasion, egg masses may be attached to aquatic vegetation, woody debris, and gravel. Eggs generally hatch within 5 to 37 days, depending on temperature, and tadpoles complete metamorphous within 3 to 4 months after hatching.

Adult foothill yellow-legged frogs are highly aquatic and most commonly found in or near rocky perennial streams with at least some cobble-sized rocks and riffle areas and stream depth rarely greater than 1 meter. Adult migration appears to be limited to modest movement along stream corridors. Breeding occurs in pools within streams, and eggs are usually attached to gravel or rocks near pool or stream edges. In northern California, eggs have been found attached to cobbles and boulders at lower than ambient flow velocities near confluences of tributary drainages in wide, shallow reaches. Breeding sites are often used repeatedly.

Foothill yellow-legged frog has been documented in Spanish Creek in the following locations: approximately 350 meters downstream of the BSA, approximately 1 mile downstream of the BSA, approximately 3 miles upstream of the BSA near Greens Flat at the confluence with Bean Creek, and in several upstream tributaries. All life states (adult, juvenile, and tadpole) were documented at these locations during herpetofauna surveys conducted for the USFS in May 2002 and during amphibian surveys conducted by USFS fisheries technicians in 2012. Similar aquatic habitat was documented within the BSA during wildlife surveys conducted in the summer and fall of 2011 by AECOM biologists. At the time, no life stages of any yellow-legged frog species were observed; however, the combination of cobble substrate with moderate flows and sections of riffle and smooth water (run, glide, and pool) were noted as potential foraging and migration habitat, and potential breeding habitat was noted in pool habitat and near the edges where velocities are slower. Therefore, the entire reach of Spanish Creek within the BSA is considered potential habitat and implementation of the proposed project could result in adverse effects on foothill yellow-legged frog. This impact is considered potentially significant. Implementation of Mitigation Measure BIO-3 below would reduce impacts to these species to a less-than-significant level.

Mitigation Measure BIO-3: The following measures shall be implemented to avoid or minimize potential impacts on foothill yellow-legged frog:

Before construction begins, worker awareness training shall be provided to construction crews working in the BSA. At a minimum, the training shall include a description of foothill yellow-legged frog, their habitat and importance, general measures being implemented to protect them, and the boundaries within which construction activities shall occur.

If no dewatering or other in-water work is necessary, the County shall still obtain a qualified biologist holding the appropriate scientific permit to survey the aquatic habitat within the BSA two weeks before

the start of construction activities. If no foothill yellow-legged frogs are found, the results of the survey shall be documented in a report to the County and no further action is required. If foothill yellow-legged frogs, tadpoles, or eggs are found, the County shall determine, in consultation with CDFW, if the frogs need to be moved or protected in other ways (e.g., fencing, flagging, floats, etc.) from the nearby construction activity.

Currently no dewatering or other in-water activities are anticipated; however, if any work in Spanish Creek is necessary, the County shall minimize impacts on this species by implementing the following measures:

- ▶ Suitable foothill yellow-legged frog aquatic habitat shall be surveyed by a qualified biologist holding the appropriate scientific permit within two weeks before the start of construction activities. If foothill yellow-legged frogs, tadpoles, or eggs are found, they may be moved from the project area only with CDFW approval, and the biologist shall be present until all forms of foothill yellow-legged frogs are removed. If no foothill yellow-legged frogs are identified, the findings shall be identified in a report to the County, construction may proceed, and no further avoidance and minimization measures will be necessary.
- ▶ If the CDFW review process requires breeding surveys, this would take place in early spring, when egg masses would most likely be found, followed by surveys two weeks before construction. If egg masses were discovered during early season surveys, construction could be delayed until after the eggs hatched. If tadpoles or adults are present two weeks prior to construction, then exclusionary fencing and relocation with CDFW approval could occur.
- ▶ If dewatering by pumping is necessary, intakes shall be completely screened with wire mesh not larger than 5 millimeters; water shall be released downstream at an appropriate rate to maintain downstream flows during construction and in such a manner as to prevent erosion; and dewatering structures shall be removed upon completion of the project.
- ▶ Guidelines shall be implemented to protect water quality and prevent erosion, pursuant to conditions set forth by the RWQCB and outlined in the permitting process in accordance with the regulatory agency guidance for protecting water quality.

Potential Impacts on Sierra Nevada Yellow-legged Frog

Less than Significant with Mitigation Incorporated. Sierra Nevada yellow-legged frog (formerly mountain yellow-legged frog) is a State species of special concern and a candidate for State and federal listings. Habitat includes sunny river margins, meadow streams, and lake margins in the Sierra Nevada, and this species most commonly occurs at elevations between 4,500 to 12,000 feet in elevation. Tadpoles are herbivores and feed on algae, and adults feed on aquatic and terrestrial invertebrates and occasionally on other amphibians.

Breeding begins soon after ice-melt or early in spring and can begin in April at lower elevations and June to July in higher elevations. Eggs are deposited underwater in clusters attached to rocks, gravel, and under banks, or to vegetation. At lower elevations where the summers are longer, tadpoles are able to grow faster and go through metamorphosis in a single season, but at higher elevations tadpoles must overwinter at least once and may take several years of growth before completing metamorphous to the adult stage.

Adults are highly aquatic, and are rarely found more than a few hops from water. On warm days, they bask at the water's edge, often aggregating in dense clumps on rocks or clumps of grass to maximize heat intake while minimizing water loss. When disturbed, they dive into the water, and take refuge under rocks, or on the bottom. During dry conditions they may find upland refuge near water.

Sierra Nevada yellow-legged frog has been documented in Spanish Creek approximately 2 miles upstream of the BSA, where 62 adult, sub-adults, tadpole and egg life stages were documented from 2005 to 2007 in a three year telemetry study for this species. In addition, adult, sub-adult, and tadpole life stages were documented upstream on Pineleaf Creek and Bean Creek, which are tributaries to Spanish Creek, during herpetofauna surveys conducted for the USFS in May 2002. Similar stream habitat (substrate and vegetation) and conditions (depth, width, and velocity) are present at the upstream locations on Spanish Creek and within the BSA. Sierra yellow-legged frogs are also thought to have a high affinity to their breeding sites, and dispersal is mainly limited to juveniles. While there is potential for this species to occur within the BSA, it has never been documented closer than 2 miles, so the probability of this species occurring within the BSA is likely low. During wildlife surveys conducted in the spring and fall of 2011 by AECOM biologists, no life stages of any yellow-legged frog species were observed; however, because the conditions are similar within the BSA and the upstream locations on Spanish Creek where Sierra Nevada yellow-legged frog was documented, potential foraging and breeding habitat within the BSA cannot be ruled out for this species. Therefore, the entire reach of Spanish Creek within the BSA is considered potential habitat. Implementation of Mitigation Measure BIO-4 below would reduce impacts to these species to a less-than-significant level.

Mitigation Measure BIO-4: The same mitigation measures outlined above in Mitigation Measure BIO-3 for foothill yellow-legged frog apply to Sierra Nevada yellow-legged frog.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?**

Potential Impacts to Spanish Creek (Perennial Stream)

Less than Significant with Mitigation Incorporated. Spanish Creek is a perennial drainage that flows through the BSA from east to west. Spanish Creek is a tributary to the East Fork Feather River, a traditional navigable waterway subject to USACE jurisdiction under Section 404 of the CWA and CDFW regulation under Section 1602 of the Fish and Game Code.

Approximately 0.092 acre of the Spanish Creek perennial channel, measured at the average channel width of 20 feet or ordinary high water mark (OHWM), occurs in the BSA. While the project design enables all work to occur outside the OHWM, construction activities could result in temporary placement of fill materials into Spanish Creek, a jurisdictional water of the U.S., Implementation of Mitigation Measure BIO-5 below would reduce impacts to Spanish Creek to a less-than-significant level.

Mitigation Measure Bio-5: To avoid and minimize potential impacts to Spanish Creek, the County shall submit a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) to determine if a Stormwater Pollution Prevention Plan (SWPPP) and/or other water quality control plans are required and comply with all conditions required as a result of the permitting process in accordance with the regulatory agency guidance for protecting water quality. In addition, the County shall obtain the following permits and abide by all permit conditions:

- ▶ Section 404 Permit, USACE Nationwide Permit #33 Permit (Temporary Construction, Access and Dewatering), for potential temporary impacts to waters of the United States or wetlands adjacent to Spanish Creek.
- ▶ Water quality certification from the RWQCB, Central Valley Region, pursuant to Section 401 of the CWA to ensure the project is consistent with the state's water quality standards and criteria.

- ▶ Streambed Alteration Agreement from CDFW, Region 2, for all modifications to the bed and bank of Spanish Creek and implement all measures outlined in the agreement.

Potential Impacts to Riparian Woodland

Less than Significant with Mitigation Incorporated. The riparian woodland habitat in the BSA occurs as a narrow corridor along the banks of Spanish Creek. This community is considered a sensitive natural community and is subject to CDFW jurisdiction under Section 1602 of the California Fish and Game Code.

Approximately 0.632 acre of riparian woodland occurs within the BSA. Based on the current project design, approximately 0.279 acre of riparian woodland in the BSA would be permanently impacted by project construction. The additional 0.353 acres occur in a buffer zone around the planned construction zone and would be avoided. Implementation of Mitigation Measure BIO-6 below would reduce impacts to riparian woodland resulting from project construction to a less-than-significant level.

Mitigation Measure Bio-6: The following measures shall be implemented to avoid and minimize impacts to riparian woodland habitat:

- ▶ Avoid temporary or permanent disturbance to riparian vegetation to the maximum extent possible through project planning and design.
- ▶ Obtain a Streambed Alteration Agreement from CDFW, Region 2, for all modifications to the bed and bank of Spanish Creek, including riparian tree removal, and implement all measures outlined in the agreement, including any requirements for replacement plantings.
- ▶ If directed by CDFW, install protective fencing around riparian vegetation that is not planned for removal to prohibit inadvertent disturbance to these areas.

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

Potential Impacts to “Freshwater Marsh”

Less than Significant with Mitigation Incorporated. A small area of freshwater marsh (approximately 0.003 acres) is located downstream of Snake Lake Road Bridge on the southern bank of Spanish Creek. The marsh is perched on a low terrace approximately 1 foot higher than an abutting area of backwater that branches off Spanish Creek. The geomorphic position of the marsh within the floodplain creates a significant nexus with other waters of the United States (Spanish Creek) and makes it subject to USACE jurisdiction under Section 404 of the CWA. While the approximately .003 acre of freshwater marsh in the BSA is expected to be fully avoided during project construction, without mitigation, there is a potential that it could be directly impacted. Implementation of Mitigation Measure BIO-7 below would reduce impacts to freshwater marsh to a less-than-significant level.

Mitigation Measure Bio-7: The following measures to avoid and minimize impacts to freshwater marsh shall be implemented:

- ▶ Avoid disturbance to freshwater marsh vegetation to the maximum extent possible by design, planning and implementing appropriate BMPs.
- ▶ Contain bridge construction activities, grading, staging, and all other construction activities within the planned work area and existing right-of-way to avoid disturbance of the freshwater marsh area.

- ▶ Install protective fencing around freshwater marsh vegetation to prohibit inadvertent disturbance to this area.
- ▶ Educate contractors and subcontractors on the applicable BMPs implemented for this project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact. The BSA is located in the northern Sierra Nevada mountain range, which is an important wildlife migration corridor for a variety of common and special-status species. The East North Fork Feather River and the Middle Fork Feather River are located north and south of the BSA, respectively, in deep canyons that are migratory corridors between the Sierra Nevada mountain range and the Sacramento Valley.

Within the BSA, the mixed conifer forest is disturbed and patchy; the riparian woodland corridor along Spanish Creek is the most valuable migration corridor. The creek is an important water source and provides nesting and foraging habitat for a variety of wildlife species including raptors, songbirds, and mammals. While some local disturbance would occur in the BSA as a result of project construction, these activities would be limited to a small area and would be temporary in nature. They are not expected to interfere with any movement corridors or the movement of any wildlife or native resident or migratory fish species through the area. Upon completion of construction, the new bridge would be similar to the existing condition and Spanish Creek will continue to function as an important water source and movement corridor. Impacts would be less than significant and no mitigation is required.

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

No Impact. Replacement of the bridge would not conflict with any local ordinances, plans or policies protecting biological resources. No impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The site is not subject to any local, regional or state habitat conservation plans. No impacts would occur.

3.5 CULTURAL RESOURCES

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| V. Cultural Resources. Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.5.1 ENVIRONMENTAL SETTING

CULTURAL RESOURCES INVESTIGATION

A Historic Property Survey Report and Archaeological Survey Report were completed by AECOM for the proposed project (AECOM 2013b). These reports document the methods and results of the cultural resources investigations conducted for the project. The purpose of the investigations was to identify any historic properties or historical resources located within the proposed project’s Area of Potential Effects (APE). The investigation included a records and literature search conducted at the Northeast Information Center (NEIC), a records and literature search conducted at the Mt. Hough Ranger District Office, a search of the Native American Heritage Commission’s (NAHC) sacred lands file, consultation with the Plumas County Museum, a pedestrian survey of the APE, and an Extended Phase I Investigation, which included mechanical excavation of a trench with the intention of identifying the remains of the historic-era town of New Boston (described below).

The records and literature search conducted at the NEIC identified two cultural resources, the town site of New Boston (P-32-2355, Forest Service No. 05-11-56-576) and the Gopher Hill Mine Complex (CA-PLU-2103H, P-32-2103, Forest Service No. 05-11-56-292), located in the immediate vicinity of the project APE. The records search conducted at the Mt. Hough Ranger District, and consultation with the Plumas County Museum, identified the town of New Boston within the APE and the Beckwourth Trail (Forest Service No. 05-11-50-01) as being in the immediate vicinity. The NAHC search of their sacred lands file did not identify any known Native American cultural resources located in the immediate vicinity of the APE. The pedestrian survey conducted for the proposed project did not identify any historical or archaeological resources, including evidence of the previously recorded resources described above. Snake Lake Road Bridge is a Category 5 bridge according to the California Department of Transportation (Caltrans) Historic Bridge Survey; it has been determined not eligible for listing on the National Register of Historic Places (NRHP).

CULTURAL RESOURCES ENVIRONMENT

Prior to the advent of Euro-American settlement during the Gold Rush, the Northeastern or Mountain Maidu were the people who occupied the general region of the project area. Mountain Maidu territory roughly corresponded to the boundaries of current day Plumas County.

The historic period for Plumas County began in 1820 when a Spanish expedition led by Captain Louis L. Argüillo found and named the Feather River (in Spanish Rio de las Plumas, or ‘River of Feathers’) because of the large number of bird feathers they found floating in the river.

James H. Bradley, who owned American Ranch, established the town of Quincy in the mid-1850s naming it after his hometown in Illinois. The town was laid out around Bradley’s ranch after he had the hotel he owned established as center for the county court. The County of Plumas was formed from portions of Butte County, with Quincy as the county seat, in 1854. A post office was established in Quincy in 1855.

The Beckwourth Trail once passed through, or very near, the APE. Prior to the trails construction in 1851, only a mule trail connected Bidwell’s Bar (near Oroville) to the upper reaches of the Feather River. Jim Beckwourth, a gold prospector in Quincy, proposed connecting the main California Trail to Bidwell’s Bar through American Valley by a pass he had discovered. His proposal was promised financial backing by the mayor of Marysville and so Beckwourth hired men to construct the road. Unfortunately, the financial assistance never materialized for Beckwourth. The trail proved to be extremely difficult to traverse, however, and even though improvements were made in 1855, the trail was rarely used and by 1860 it was more of a stage and freight road than an emigrant trail.

The discovery of gold in 1850 at Rich Bar and the establishment of Spanish Ranch were key factors in the early development of Plumas County’s mining industry. The mining settlement of New Boston sat approximately at the confluence of Spanish and Wapaunsie creeks. Where the original confluence was located in relation to today’s placement is difficult to determine because the entire area has been covered with hydraulic mining debris since the early 1870s. New Boston came into being circa 1852 to accommodate gold mining at Gopher Hill and other nearby areas. It was also a stop on the Beckwourth Trail for some years, and contained a toll gate for the Quincy-Spanish Ranch Road (today’s Bucks Lake Road) from approximately 1865 until 1875. It also contained J.J. McEwen’s Store or trading post, an apple orchard, hay fields, vegetable gardens, the toll gate, Nicholas Clark’s Snake Lake House (a hotel), a blacksmith shop, a Justice of the Peace, and several homes. John D. Goodwin, later a Plumas County superior court judge, lived there as well. The inhabitants of the town were bought out by Plumas Mining & Water Company in the early 1870. The town site was used to deposit hydraulic mining debris. Most of the buildings were reportedly dismantled and rebuilt or reused elsewhere. The only known surviving building from this early town is a small log cabin located on the Robert Ridley property in Meadow Valley.

3.5.2 DISCUSSION

a) **Cause a substantial adverse change in the significance of a historical resource or archaeological resource as defined in Section 15064.5?**

Less than Significant with Mitigation Incorporated.

While no historical or archaeological resources were identified on or adjacent to the project site during the pedestrian survey, it is possible that previously unknown buried historical or archaeological deposits could be

discovered during grading and excavation work associated with construction. Prehistoric materials can include flaked-stone tools (e.g. projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse. Implementation of the following mitigation measure would reduce impacts to previously undiscovered resources to a less-than-significant level.

Mitigation Measure CUL-1: If deposits of prehistoric or historical archaeological materials are discovered during non-monitored project activities, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted, if one is not present, to assess the situation. The construction contractor shall consult with agencies as appropriate to make recommendations for the treatment of the discovery. Plumas County Department of Public Works shall also be notified. Project personnel shall not collect or move any archaeological materials.

It is recommended that adverse effects to the finds be avoided by project activities. If avoidance is not feasible, the archaeological deposits shall be evaluated by a qualified archaeologist to determine if the resource qualifies as a historical resource or unique archaeological resource, or as historic property. If the deposits do not so qualify, avoidance is not necessary. If the deposits qualify, adverse effects on the deposits shall be avoided, or effects shall be mitigated. Mitigation may consist of, but is not limited to, recovery and analysis of the archaeological deposit; recording of the resource; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the Plumas County Department of Public Works for filing.

b) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. No paleontological resources (i.e., fossil remains of animals or plants) are known to exist within the APE. However, should paleontological resources be discovered during project construction, implementation of the following mitigation measure would reduce potential impacts to paleontological resources to a less-than-significant level.

Mitigation Measure CUL-2: If paleontological resources are encountered during project construction, all ground-disturbing activities shall be redirected within 50 feet of the find until a qualified paleontologist can be contacted to evaluate the find and make recommendations. If the professional paleontologist determines that the paleontological resource is significant and project activities cannot avoid the resource, a paleontological evaluation and monitoring plan shall be implemented. The plan shall include measures to mitigate adverse effects to paleontological resources, which may include monitoring, data recovery and analysis, reporting, and the curation of all fossil material in a paleontological repository. Upon completion of project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository and a copy provided to Plumas County Department of Public Works.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation Incorporated. Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected

to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined whether or not the remains are subject to the coroner's authority. There is no indication that human remains are present within the proposed project site. Implementation of the following mitigation measure would ensure that potential impacts to human remains, should they be encountered, would be reduced to a less-than-significant level.

Mitigation Measure CUL-3: In the event that human remains are encountered during project construction, work within 50 feet of the discovery shall be redirected and the County Coroner shall be notified immediately. At the same time, a qualified archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission shall identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the Plumas County Department of Public Works.

3.6 GEOLOGY AND SOILS

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| VI. Geology and Soils. Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.6.1 ENVIRONMENTAL SETTING

The project site is located within the Sierra Nevada geomorphic province of California, which starts at Lassen Peak in the Cascade Range and extends southward toward the Tehachapi Mountains. The Natural Resources Conservation Service (NRCS) Soil Survey for Plumas County, California, describes surface soils across the project site as predominantly Riverwash-Fluents complex, 0 to 2 percent slopes which are characterized as stratified very stony loamy sand to very gravelly loam and excessively drained (NRCS 2013).

3.6.2 DISCUSSION

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

Less-than-Significant Impact. Plumas County is not located within a designated Alquist-Priolo Earthquake Fault Zone (DOC 2010b). No active or potentially active faults have been mapped on the project site. Therefore, potential for fault rupture at the project site is low and this impact would be less than significant.

- ii) **Strong seismic ground shaking?**

Less than Significant Impact. Plumas County and the entire Northern California region are located in a seismically active region subject to strong seismic ground shaking. While Plumas County is not within an Alquist-Priolo Earthquake Fault Zone, there are potentially active faults within Plumas County. However, the County has low seismic hazard potential (Plumas County 2012:4.7-17). Therefore, impacts related to strong seismic ground shaking would be less than significant.

- iii) **Seismic-related ground failure, including liquefaction?**

Less-than-Significant Impact. As discussed above, soils at the site are primarily Riverwash-Fluents complex, 0 to 2 percent slopes which do not exhibit characteristics of soils most susceptible to liquefaction. Rock is present at shallow depths throughout the project area; therefore the area is not at substantial risk of liquefaction. Moreover, Plumas County has a low seismic hazard potential (Plumas County 2012:4.7-17). Therefore, impacts associated with seismic-related ground failure, including liquefaction would be less than significant.

- iv) **Landslides?**

Less than Significant Impact. The County's General Plan does not identify the project area as an area susceptible to slumps and slide, debris slides, talus, or an area with unconsolidated debris (Plumas County 1989). The proposed project involves replacement of an existing bridge and would not alter slopes in the project area such that would create increased risk of landslides. Because the project site is not located in an area of known landslides or on steep terrain that would be prone to landslide activity and the proposed project would not increase landslide risk, this impact would be less than significant.

- b) **Result in substantial soil erosion or the loss of topsoil?**

Less than Significant Impact. The project site is not in an area identified as having moderate or high erosion potential (Plumas County 1989). However, areas surrounding the project site are classified as moderate to high erosion potential. The proposed project would be designed to avoid potential for substantial erosion as a result of stream flows or dewatering activities. Furthermore, the project would be required to comply with all applicable water quality and erosion control regulations, as well as applicable building codes. Because the proposed project would be designed to avoid erosion and constructed in compliance with all applicable codes and regulations, the

risks of substantial soil erosion or loss of top soil would be minimal. Therefore, this impact would be less than significant.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Less than Significant Impact. As described above, the potential for hazard from landslide and liquefaction in the project area is low. Therefore, the potential for liquefaction induced lateral spreading is also low. Causes of soil instability include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, liquefaction, and hydro-compaction. The proposed project does not include the on-site withdrawal of groundwater. The project site is not located in an area that has been subjected to activities that might cause soil instability. Because the project site has not been subject to activities that may cause soil instability, the risk of subsidence or collapse is expected to be low. Therefore, this impact would be less than significant.

- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?**

Less than Significant Impact. Project site soils have not been identified as expansive. Additionally, adherence to the Uniform Building Code would minimize any potential impacts from unexpected expansive soils. Therefore, this impact would be less than significant.

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. The proposed project would not generate wastewater requiring disposal. No septic tanks or alternative waste water disposal systems are included in the proposed project. Therefore, the proposed project would not result in impacts to soils associated with the use of septic tanks or alternative waste water disposal systems

3.7 GREENHOUSE GAS EMISSIONS

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| VII. Greenhouse Gas Emissions. Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.7.1 ENVIRONMENTAL SETTING

Most of the energy that affects the earth’s climate comes from the sun. Some solar radiation is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected by the atmosphere back toward space. As the earth absorbs high-frequency solar radiation, its surface gains heat and then re-radiates lower frequency infrared radiation back into the atmosphere. Most solar radiation passes through gases in the atmosphere that are classified as greenhouse gases (GHGs); however, infrared radiation is selectively absorbed by GHGs. GHGs in the atmosphere play a critical role in maintaining the balance between earth’s absorbed and radiated energy, earth’s radiation budget, by trapping some of the infrared radiation emitted from the earth’s surface that otherwise would have escaped to space. Specifically, GHGs affect the radiative forcing of the atmosphere, which in turn affects the earth’s average surface temperature. This phenomenon, the greenhouse effect, keeps the earth’s atmosphere near the surface warmer than it would be otherwise and allows successful habitation by humans and other forms of life.

The combustion of fossil fuels and deforestation releases carbon that historically has been stored underground in sediments or in surface vegetation into the atmosphere, thus exchanging carbon from the geosphere and biosphere to the atmosphere within the carbon cycle. With the accelerated increase of fossil fuel combustion and deforestation since the Industrial Revolution of the nineteenth century, concentrations of GHGs have increased exponentially in the atmosphere. Such emissions of GHGs in excess of natural ambient concentrations contribute to the enhancement of the natural greenhouse effect. This enhanced greenhouse effect has contributed to global warming, an increased rate of warming of the earth’s average surface temperature. Specifically, increases in GHGs lead to increased absorption of infrared radiation by the earth’s atmosphere and warm the lower atmosphere further, thereby increasing temperatures and evaporation rates near the surface. Variations in natural phenomena, such as volcanoes and solar activity, produced most of the global temperature increase during preindustrial times; however, increasing atmospheric GHG concentrations resulting from human activity have been responsible for most of the observed global temperature increase in recent times.

GLOBAL CLIMATE CHANGE ISSUE

Climate change is a global problem because GHGs are global pollutants, unlike criteria air pollutants and hazardous air pollutants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes

(several years to several thousand years). GHGs persist in the atmosphere for a long enough time to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule depends on multiple variables and cannot be pinpointed, more carbon dioxide (CO₂) is currently emitted into the atmosphere than is sequestered. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through photosynthesis and dissolution, respectively. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; the quantity is enormous, and no single project would be expected to measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or microclimate.

Emissions of GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Therefore, a cumulative discussion and analysis of all relevant projects' impacts on global climate change is presented in this analysis because, although it is unlikely that a single project will contribute significantly to climate change, cumulative emissions from many projects affect global GHG concentrations and the climate system.

3.7.2 DISCUSSION

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant with Mitigation Incorporated. The proposed project would generate exhaust-related GHG emissions during construction resulting from operation of construction equipment, material haul and delivery trucks, and trips by construction worker vehicles. Construction-related GHG emissions would occur for approximately five months and would cease following completion of the project. Operational emissions associated with vehicle traveling across the bridge would occur during construction and continue following completion of the proposed project. However, construction of the proposed project is not anticipated to result in a net increase in vehicle miles traveled (VMT). The proposed project is not a land-use development project that would generate vehicle trips and is not a roadway capacity increasing project that could carry additional VMT. Therefore, the proposed project would not result in a net increase in operational GHG emissions and thus operational-related GHG emissions would be less than significant.

Construction

As discussed above, construction-related GHG emissions would occur for a five-month period after which all construction related emissions would cease. The proposed project would not involve any extensive construction activities such as large amounts of earth excavation, soil import, or construction equipment use. Therefore, considering that construction activities would not involve any activities that would be intensive beyond typical construction and that construction emission would cease following completion of the project, it is not anticipated the proposed project would generate a substantial amount of GHG emissions from construction that would have a significance impact on the environment. Nevertheless, as discussed in Section 3.7.1, "Environmental Setting," above, because GHG emissions are different from criteria air pollutant emissions, which are evaluated on a local or regional level, the mass generation of GHG emissions is evaluated on a global level. Therefore, in order to ensure that the proposed project would not generate construction emissions that have a significant impact on the environment, the proposed project would implement Mitigation Measure GHG-1 during construction activities.

Mitigation Measure GHG-1: To the extent feasible and to the satisfaction of Plumas County Department of Public Works, the following measures shall be incorporated into the design and construction of the project:

- ▶ On-site idling of construction equipment shall be minimized (no more than 5 minutes maximum);
- ▶ Biodiesel shall be used as an alternative fuel to diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within 5 miles of the project site;
- ▶ At least 10 percent of building materials shall be local to the extent feasible; and
- ▶ At least 50 percent of construction waste or demolition materials shall be recycled.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. As discussed above, the proposed project would not generate a net increase in long-term operational VMT or GHG emissions following construction of the proposed project. During construction, Mitigation Measure GHG-1 would be implemented to reduce construction-related GHG emissions. Thus, it is not anticipated that the proposed project would interfere or obstruct implementation of an applicable GHG emissions reduction plan. The proposed project would be consistent with all applicable local plans, policies, and regulations for reducing GHG emissions and this impact would be less than significant.

3.8 HAZARDS AND HAZARDOUS MATERIALS

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| VIII. Hazards and Hazardous Materials. Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.8.1 ENVIRONMENTAL SETTING

An Initial Site Assessment (ISA) was prepared for the proposed bridge replacement by Pinnacle Environmental, Inc. (PEI) in February 2012. Based on the recommendations contained within the ISA, a Limited Phase II Environmental Site Assessment (Phase II) was prepared by PEI in August 2012. The following information is derived from these two documents.

INITIAL SITE ASSESSMENT (ISA)

The ISA included evaluations of historical records, agency records, and site visit observations. PEI's site visit observations and historical research identified the presence of historic mining activities along Spanish Creek and in areas to the north toward and including the former Gopher Hill Mine. Large quantities of mine tailings were noted along the creek bed and banks for at least several hundred feet upstream and downstream of the existing Snake Lake Road bridge. PEI recommended soil sampling to analyze whether heavy metals might be present in project site soils.

PEI's research indicated the potential for naturally occurring asbestos (NOA) to be located close to the project site. Although the potential for NOA is low, PEI recommended soil sample testing.

Based upon the age of the existing bridge structure, PEI concluded that it is possible that lead-based paints (LBP) were used to paint the bridge. PEI recommended that all painted surfaces be treated as if they contain LBP. Yellow traffic markings and thermoplastic paint could also contain lead and chromium (lead chromate). As a precaution, PEI recommended that traffic markings be managed and disposed of as hazardous waste and striping be removed in accordance with Caltrans recommendations.

LIMITED PHASE II

Based on the findings in the ISA, PEI was retained to provide the Phase II report. Analysis in the Phase II covered four soil matrix samples obtained from the Snake Lake Bridge archaeological excavation and a "background" sample from an area north of the existing bridge. The laboratory analysis tested for heavy metals and NOA. Results showed no hazardous waste metals concentrations. Based upon the sampling and data, PEI concluded that no further assessment is necessary for heavy metals or NOA.

3.8.2 DISCUSSION

a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less than Significant with Mitigation Incorporation. The proposed project includes the replacement of the existing Snake Lake Road bridge. The bridge provides access to the County's Gopher Hill Landfill, which is presently closed, public lands managed by the U.S. Forest Service (USFS), and private lands east of the unincorporated community of Meadow Valley. At the conclusion of project construction, there would be no routine transport, use, or disposal of hazardous materials associated with the proposed project.

Project construction would include the use of heavy equipment for grading, hauling, and materials handling. Use of heavy equipment inherently includes the use of hazardous substances such as, but not limited to, fuels, solvents, and lubricants. If used properly, these materials would not pose a significant risk to the public or the environment. Potential impacts related to the transport, use, or disposal of hazardous materials would be reduced to less-than-significant with implementation of the following mitigation measure:

Mitigation Measure HAZ-1: In accordance with the Plumas County Hazardous Materials Response Plan, the project contractor shall prepare and implement a Spill Prevention and Countermeasure Plan (SPCP) prior to the commencement of construction activities. The SPCP shall include information on the nature of all hazardous materials that will be used on-site. The SPCP shall also include information regarding proper

handling of hazardous materials, and clean-up procedures in the event of an accidental release. The phone number of the Plumas County Environmental Health Department overseeing hazardous materials and toxic clean-up shall be provided in the SPCP.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than Significant with Mitigation Incorporation. The proposed project includes the replacement of the existing Snake Lake Road bridge. Operation of the proposed project, once completed, would be essentially identical to existing operations. Therefore, operation of the proposed new bridge would not create a significant hazard to the public or environment.

The ISA report prepared for the proposed project discussed the potential for heavy metals in mine tailings, NOA), and LBP. As discussed above, the Phase II included laboratory analysis of soil samples which revealed that the samples showed no hazardous waste metals concentrations. Based upon the sampling performed and laboratory data, no further assessment was recommended.

Because of the age of the existing bridge, it is possible that LBP was used and all painted surfaces should be considered covered with suspected LBP. Additionally, yellow traffic markings and thermoplastic paint used for traffic striping prior to 1997 may contain levels of lead and chromium (lead chromate) that exceed hazardous waste criteria. Traffic markings and striping should be managed and disposed of as hazardous waste. Potential impacts related to the accidental release of hazardous materials would be reduced to less than significant with implementation of the following mitigation measures:

Mitigation Measure HAZ-2: In accordance with the Plumas County Hazardous Materials Response Plan, the project shall comply with the OSHA Standard 1926.6 related to lead abatement, and all other applicable State and federal requirements for the safe handling and disposal of lead-based paint.

Prior to any modifications to the existing bridge structure on the project site, lead-based paint surveys (including sampling) shall be performed by a qualified environmental professional. The LBP inspection should be conducted by a California Department of Public Health Certified Lead Inspector/Assessor as defined in Title 17 California Code of Regulations, Division 1, Chapter 8. If any LBP is identified, it shall be abated and removed from the site in accordance with all applicable regulations, including OSHA requirements. The County shall verify that the surveys and abatement or removal, as necessary, have been completed prior to any construction activities on the project site.

Mitigation Measure HAZ-3: Yellow thermoplastic and/or paint striping shall be removed in accordance with Caltrans Standard Special Provision 15-300, Remove Traffic Stripe and Pavement Marking, which includes testing prior to disturbance. Such work shall be performed under a written compliance plan by certified personnel that have received Lead In Construction training. Depending on the results of the paint testing, appropriate abatement actions and worker and environmental safety measures should be implemented.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no schools located within one-quarter mile of the project site. The nearest school to the project site is Meadow Valley School, located approximately 1.75 miles southwest of the project site. Because

there are no schools within one-quarter mile of the project site, the proposed project would not have an impact on existing or proposed schools.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

No Impact. As discussed in the ISA, the project site not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (PEI 2012a:25) Therefore, no impact would occur.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The proposed project is not located within two miles of a public airport. The closest airport to the project site is the Gansner Airport in the Town of Quincy, approximately 4.5 miles east of the project site. The project site is not located within the airport's influence area (Plumas County ALUC 2008). Therefore, the proposed project would have no impact related to exposing people residing or working in the project area to airport safety hazards.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The proposed project is not located within two miles of a public airport or within the vicinity of a private airstrip. The closest airport to the project site is the Gansner Airport in the Town of Quincy, approximately 4.5 miles east of the project site. The project site is not located within the airport's influence area (Plumas County ALUC 2008). Therefore, the proposed project would have no impact related to exposing people residing or working in the project area to airport safety hazards.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Less-than-Significant Impact. The proposed project would not interfere with any adopted emergency response plans or evacuation plans. During construction, a temporary single-lane bridge constructed immediately west of the existing bridge would accommodate traffic on Snake Lake Road. The temporary bridge would be installed prior to the closure of the existing bridge. Therefore, because a temporary bridge would be available for the duration of construction activities, the proposed project would have a less than significant related to interference with emergency response or evacuations.

- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

Less-than-Significant Impact. The California Department of Forestry and Fire Protection (CAL FIRE) identifies the majority of Plumas County as having a moderate to high risk of wildland fire (CAL FIRE 2007). The proposed bridge replacement is in a rural area and would not include the development of habitable structures.

Construction activities would no present a significant risk to igniting wildland fires. Therefore, implementation of the proposed project would result in a less than significant impact related to wildland fires.

3.9 HYDROLOGY AND WATER QUALITY

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| IX. Hydrology and Water Quality. Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Result in inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.9.1 ENVIRONMENTAL SETTING

A Location Hydraulic Study was completed for the proposed project and approved by Caltrans (see Appendix B). The study described the project site as within the Special Flood Hazard Area (SFHA) Zone 4. The analysis showed that the base flood elevation (BFE) does not encroach upon the existing or proposed bridge. Implementation of the proposed project would lower the BFE, because the channel terraces would be graded to

accommodate higher stream flows without the risk of bridge abutment erosion. The study concluded that the proposed project posed a low risk.

3.9.2 DISCUSSION

a) Violate any water quality standards or waste discharge requirements?

Less-than-Significant Impact with Mitigation Incorporation. Project operation would not involve any activities that could contribute to violation of water quality or waste discharge standards. Project construction could cause temporary water quality impacts due to grading, excavation, dewatering, vegetation removal, and bridge installation.

Potential short-term water quality effects from project construction would be minimized and reduce through implementation of best management practices (BMPs) and compliance with applicable regulatory requirements. Implementation of the following mitigation measures would ensure compliance with regulatory requirements and reduce potential impacts to less than significant.

Mitigation Measure HYDRO-1: The Plumas County Department of Public Works shall require the project contractor to prepare and implement construction site temporary BMPs in compliance with the provisions of the Caltrans Statewide NPDES Permit and any subsequent permit pertaining to construction of the proposed project. The Plumas County Department of Public Works shall submit a Notice of Construction (NOC) to the Central Valley RWQCB at least 30 days prior to the start of construction and shall submit a Notice of Termination (NOT) to the Central Valley RWQCB upon completion of construction and stabilization of the project site. The County shall require the construction contractor to install the temporary prior to any construction operations and to maintain them and keep them on good condition for the duration of the contract. The removal of these BMPs will be the final operation, along with the project site cleanup.

Mitigation Measure HYDRO -2: The Plumas County Department of Public Works shall incorporate Design Pollution Prevention (DPP) and Treatment Control BMPs into the final project design in accordance with the procedures outlined in the Stormwater Quality Handbooks, Project Planning and Design Guide. The Plumas County Department of Public Works shall coordinate with the Central Valley RWQCB with respect to feasibility, maintenance, and monitoring of Treatment Control BMPs as set forth in Caltrans' Statewide Stormwater Management Plan (SWMP). The DPPs and BMPs shall be part of the construction bid package and implementation of the measures as intended shall be a condition of the construction contract.

Mitigation Measure HYDRO -3: During dewatering activities, if necessary the provision of the General Waste Discharge requirements for discharges to surface waters that pose an insignificant (de minimus) threat to water quality, Order No. R8-2003-0061 NPDES No. CAG998001, as they relate to construction activities for the project shall be followed by the construction contractor. A Notice of Intent (NOI) shall be submitted to the Central Valley RWQCB at least three months prior to the start of dewatering. The Plumas County Department of Public Works shall ensure that the construction contractor complies with all applicable provisions in the de minimus permit, including water sampling, analysis, and reporting of dewatering-related discharges. Compliance with these conditions shall be part of the construction bid package.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would

drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Less-than-Significant Impact. The proposed project includes replacement of an existing bridge across Spanish Creek. The project area currently contains a substantial amount of impervious surfaces, and the proposed project would not add a substantial amount of new impervious surface. Because the proposed project would not include a large amount of new impervious surfaces, the proposed project would not be expected to substantially interfere with groundwater recharge on the project site.

Operation of the proposed project would not require any water supply. Construction activities would require a minimal amount of water for dust suppression and site housekeeping. Water for construction would be supplied by a water truck from a nearby municipal source. No groundwater would be pumped on the project site.

Because the proposed project would not require the use on groundwater on the project site and would only add a negligible amount of impervious surfaces, impacts on groundwater supply and recharge would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?

Less-than-Significant Impact. During project construction, the existing drainage pattern of the project site would be modified by installation of the temporary detour bridge, excavation of the abutments, excavation to create a new floodplain terrace, and installation of the new bridge. However, the drainage pattern modification would be minor and would return to approximately pre-construction patterns following project completion. Because the existing drainage pattern would not be substantially altered during construction or operation, this impact would be less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

Less-than-Significant Impact. See response c) above.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. See response c) above.

f) Otherwise substantially degrade water quality?

Less-than-Significant Impact with Mitigation Incorporation. See response a) above.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed project does not include any housing. Therefore, the proposed project would have no impact on housing within a flood hazard area.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Less-than-Significant Impact. As discussed above, the project site encroaches on the Special Flood Hazard Area (SFHA). The Location Hydraulic Study Form and approved by Caltrans (see Appendix B) concluded that the proposed project would be low risk. Furthermore, neither the existing bridge nor the replacement bridge impede or redirect the flow of Spanish Creek. Therefore, the proposed project would have a less-than-significant impact related to impeding or redirecting flood flows.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. As discussed in response h) above, the proposed project would not impede or redirect flood flows. Moreover, the proposed project would not involve any activities near a levee or dam. Therefore, the proposed project would have a less-than-significant impact related to failure of a levee or dam.

j) Result in inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. The project site is not adjacent to the ocean or any other large body of water that could result in inundation by seiche or tsunami. While the project site is located in a mountainous area, the surrounding terrain is not steep enough to make the area prone to mudflows. Therefore, the proposed project would result in a less than significant impact related to inundation by seiche, tsunami, or mudflow.

3.10 LAND USE AND PLANNING

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| X. Land Use and Planning. Would the project: | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.10.1 ENVIRONMENTAL SETTING

The project site is located in an unincorporated area approximately 5 miles west of the town of Quincy, within the Plumas National Forest within Plumas County. The project site is zoned General Forest (GF) under the Plumas County Code of Ordinances. Under the existing General Plan (1984), the project site is designated as Timber Resource Land.

3.10.2 DISCUSSION

a) Physically divide an established community?

No Impact. The proposed project would replace an existing bridge in an area designated as General Forest (GF). The existing bridge provides a north-south connection over Spanish Creek. Spanish Creek is an existing natural feature that currently separates the general forest land to the north from Bucks Lake Road. During construction, a temporary bridge would be constructed so there would be minimal disruption to traffic on Snake Lake Road. The proposed project would replace the existing bridge and maintain the existing connection between areas north and south of Spanish Creek. No division of an existing established community would occur. Therefore, the proposed project would have no impact on an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project does not involve a change in land use and the project is planned consistent with the County General Plan. The project will not conflict with applicable land use plans, policies, or regulations. Therefore, the proposed project would have no impact related to any applicable land use plan, policy, or regulation.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed project site is not located in or covered by a habitat conservation plan or natural community conservation plan. Therefore, there would be no impact related to a habitat conservation plan or natural community conservation plan.

3.11 MINERAL RESOURCES

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| XI. Mineral Resources. Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.11.1 ENVIRONMENTAL SETTING

There are no known mineral resources located on or near the project site (USGS 2013a). A former gold mine, The Quincy Mining & Water Company Mine at Gopher Hill, was located north of the project site (USGS 2013b)

3.11.2 DISCUSSION

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. No known mineral resources are located on or near the project site. Therefore, the proposed project would have no impact related to the loss of availability of a mineral resource.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact. See response a) above.

3.12 NOISE

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| XII. Noise. Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.12.1 ACOUSTICS FUNDAMENTALS AND TERMINOLOGY

Sound is generally defined as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, recreation, rest, or sleep. Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

The number of sound pressure peaks travelling past a given point in a single second is referred to as the frequency, expressed in cycles per second or Hertz (Hz). A given sound may consist of energy at a single frequency (pure tone) or in many frequencies over a broad frequency range (or band). Human hearing is generally affected by sound frequencies between 20 Hz and 20,000 Hz. (20 kHz).

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. Sound pressure amplitude is measured in micro-Pascals (μPa). One μPa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 μPa to 100,000,000 μPa . Because of this huge range of values, sound is rarely expressed in terms of pressure. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of human hearing (near total silence) is approximately 0 dB which corresponds to 20 μPa .

The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental sound levels, perception of loudness is relatively predictable, and can be approximated by frequency filtering using the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard descriptor for environmental noise assessment. All noise levels reported in this section are in terms of A-weighting.

Under controlled conditions in a laboratory setting, the trained, healthy human ear is able to discern 1 dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency range (1,000 Hz–8,000 Hz). In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Furthermore, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy that would result in a 3 dB increase in sound pressure level would generally be perceived as barely detectable.

Noise in our daily environments fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in environmental noise analysis:

- ▶ **Equivalent Sound Level (Leq):** The Leq represents an average of the sound energy occurring over a specified time period. In effect, the Leq is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour, A-weighted equivalent sound level (Leq[h]) is the energy average of A-weighted sound levels occurring during a 1-hour period, and is the basis for noise abatement criteria (NAC) used by Caltrans and the FHWA.
- ▶ **Percentile-Exceeded Sound Level (Ln):** The Ln represents the sound level exceeded “n” percentage of a specified period (e.g., L10 is the sound level exceeded 10 percent of the time, and L90 is the sound level exceeded 90 percent of the time).
- ▶ **Maximum Sound Level (Lmax):** The Lmax is the highest instantaneous sound level measured during a specified period.
- ▶ **Day-Night Average Level (Ldn):** The Ldn is the energy-average of A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during nighttime hours (10 p.m.-7 a.m.). The Ldn is often noted as the DNL.

- ▶ **Community Noise Equivalent Level (CNEL):** Similar to Ldn, CNEL is the energy-average of the A-weighted sound levels occurring over a 24-hour period, with a 10 dB penalty applied to A-weighted sound levels occurring during the nighttime hours (10 p.m.-7 a.m.), and a 5 dB penalty applied to the A-weighted sound levels occurring during evening hours (7 p.m.-10 p.m.). The CNEL is usually within 1 dB of the Ldn, and for all intents and purposes, the two are interchangeable.

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern; therefore, this type of propagation is called *spherical spreading*. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source as its energy is continuously spread out over a spherical surface (i.e., a doubling of distance from the source of sound represents a spherical surface area increase of 4 times. $10\log(4)$ is approximately 6 dB).

3.12.2 ENVIRONMENTAL SETTING

The primary existing noise source in the project area is vehicle traffic on Bucks Lake Road and Snake Lake Road. The level of vehicular noise generally varies with the volume of the traffic, the percentage of truck traffic, the speed of the traffic, and the distance from the roadway.

The proposed project would replace an existing structurally deficient bridge structure in an area that is currently undeveloped (Plumas National Forest). The closest identified noise-sensitive receptors (residences) to the project site are approximately 4,000 feet to the west.

3.12.3 DISCUSSION

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

Less-than-Significant Impact. The short-term construction and long-term operational noise impacts of the proposed project are described below.

Short-Term (Construction) Impacts. Construction of the proposed project would add short-term, intermittent noise from use of equipment and vehicles. Within 50 feet of the noisiest construction source, maximum noise levels could be in the range of 81-93 dBA (L_{max}) (jack hammers, pneumatic tools, pile drivers), with variations in construction noise levels on a day-to-day basis depending on the specific activities occurring at the site. However, construction period noise would be short-term and intermittent. Construction activities would be required to comply with the Plumas County General Plan and section 9-2.413 of the County's Municipal Code regulating noise. The County's existing General Plan (1984) does not prohibit, exempt, or apply any standards to construction noise sources. However, the County is currently undertaking a comprehensive General Plan Update. The information currently available at the County indicates that the County intends to limit the potential noise impacts of construction activities on surrounding land uses. Construction operations would be allowed during the hours of 7 a.m. and 7 p.m., Monday through Friday, and between the hours of 8 a.m. and 5 p.m. on weekends or on federally recognized holidays. For the closest sensitive receptors, the maximum allowable noise level would be 75 dBA L_{max} during the specified construction hours.

Construction of the proposed project is expected to require the use of pile drivers, bulldozers, and pickup trucks. This equipment would be used on the project site. Based on Table 3.12-1, the maximum noise level generated by a pile driver on the proposed project site is expected to be 93 dBA L_{max} at a distance of 50 feet. A given bulldozer and truck would generate 85 dBA L_{max} and 86 dB L_{max} at 50 feet, respectively.

| Table 3.12-1 Summary of Construction Equipment Noise Levels | | |
|---|--|---|
| Type of Equipment | Range of Maximum Sound Levels Measured (dBA at 50 feet) | Suggested Maximum Sound Levels for Analysis (dBA at 50 feet) |
| Pile drivers, 12,000 to 18,000 ft-lb/blow | 81–96 | 93 |
| Rock drills | 83–99 | 96 |
| Jackhammers | 75–85 | 82 |
| Pneumatic tools | 78–88 | 85 |
| Pumps | 74–84 | 80 |
| Dozers | 77–90 | 85 |
| Scrapers | 83–91 | 87 |
| Haul trucks | 83–94 | 88 |
| Cranes | 79–86 | 82 |
| Portable generators | 71–87 | 80 |
| Rollers | 75–82 | 80 |
| Tractors | 77–82 | 80 |
| Front-end loaders | 77–90 | 86 |
| Hydraulic backhoes | 81–90 | 86 |
| Hydraulic excavators | 81–90 | 86 |
| Graders | 79–89 | 86 |
| Air compressors | 76–89 | 86 |
| Trucks | 81–87 | 86 |
| Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman 1987 | | |

As presented above, every doubling of distance from the construction noise source(s) (point sources) would be expected to produce a noise level attenuation of 6 dBA. This is a worst-case assessment of noise level attenuation due to distance as it does not account for shielding from intervening objects (e.g., trees, topography, man-made structures), excess ground attenuation, or atmospheric absorption. As established using aerial photography, the closest noise-sensitive uses (residential) to the project construction site are approximately 3,000 feet to the west. At this distance, the sound level from pile driving operations on the project site would be attenuated by no less than 35 dBA, resulting in a worst-case construction noise level of approximately 58 dBA L_{max} . This is well below the assumed noise level limit of 75 dBA L_{max} . Although project construction activities may be audible at existing noise-sensitive uses in the project vicinity, the noise levels produced would not be considered significant with

respect to the established jurisdictional noise level criterion. Therefore, this impact would be considered less than significant and no mitigation would be required.

It is expected that Bucks Lake Road between the project site and the Town of Quincy would be utilized as the primary project access route for workers and the delivery and removal of project equipment and materials. It is expected that this short-term traffic addition would be minimal relative to existing traffic operations, and would not result in an overall traffic noise level in excess of the County's 60 dB L_{dn} /CNEL noise compatibility standard for existing residences along the affected roadway segment. Therefore, this impact would be considered less than significant.

Long-Term (Operational) Impacts. The proposed project would entail the replacement of an existing bridge over Spanish Creek. Operation of the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, as no additional vehicular traffic or other operational noise would be generated. No significant long-term noise impacts would occur. Therefore, this impact would be considered less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Development of the proposed project would not result in excessive ground borne vibration or noise levels. Ground vibration and noise levels would be produced from the use of pile drivers, trucks, and other construction equipment during construction activities. However, this ground borne vibration and noise would be relatively minor, intermittent, short-term, and restricted to daytime hours. Furthermore, because sensitive receptors are located approximately 3,000 feet away from the project construction site, it is not expected that ground borne vibration or noise from construction of the proposed project would be discernible at these receptor locations. Therefore, this impact would be considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. As previously stated, the project would not be expected to generate any permanent increases in traffic on local area roadways. Therefore, the project would not be expected to produce any permanent traffic noise level increases relative to the ambient condition. This impact would be considered less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. Temporary, intermittent noise from construction activities associated with the development of the project would be expected. This noise would result from the temporary use of earth-moving and building equipment during the project construction period. As presented above, noise exposure associated with worst-case project construction operations would be no higher than 58 dBA L_{max} at the closest noise-sensitive uses to the west. This noise exposure would be a result of pile driving operations, which would be expected to produce the highest project construction noise levels. Worst-case project construction noise levels (58 dBA L_{max}) would be consistent with existing ambient noise levels measured in the rural residential setting, and would not be considered a significant increase in noise levels relative to the ambient condition. Likewise,

temporary construction traffic on Bucks Lake Road would not be expected to add more than 1 dB to the day-night average traffic noise levels (L_{dn}) currently experienced at the closest noise-sensitive uses. This noise level increase would be considered less than significant.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. As previously identified, the proposed project is not located within 2 miles of a public airport or within the vicinity of a private airstrip. The closest airport to the project site is the Gansner Field Airport in the Town of Quincy, approximately 4.5 miles east. The project site is not located within the airport's area of influence. Therefore, the proposed project would not expose people working on the project to excessive aircraft noise levels and no impact would occur.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The proposed project is not located within the vicinity of a private airstrip. See response e) above.

3.13 POPULATION AND HOUSING

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| XIII. Population and Housing. Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.13.1 ENVIRONMENTAL SETTING

The project site is located in an unincorporated area approximately 5 miles west of the town of Quincy, within the Plumas National Forest within Plumas County. The project site is zoned General Forest (GF) under the Plumas County Code of Ordinances. Under the existing General Plan (1984), the project site is designated as Timber Resource Land. The nearest residential uses are approximately one-half mile west of the project site.

3.13.2 DISCUSSION

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The proposed project would replace the existing Snake Lake Road bridge. The proposed project would not induce population growth in the area. Population growth can be associated with the construction of new housing in an area or by the installation of infrastructure that could support the development of additional housing in an area. The area surrounding the project site is designated as General Forest (GF). The replacement of the existing bridge does not include a residential component. No new houses would be built; therefore, the proposed project would not increase the population in the area nor would it contribute to population growth in the area. The project would have no impact on population growth.

- b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?**

No Impact. There are no homes located on or within the immediate vicinity of the project site. Because there are no homes in the project area, no homes would be displaced as a result of the proposed project and there would be no impact.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As discussed under response b) above, the proposed project would not displace any homes. Because no homes would be displaced, a substantial number of people would not be displaced and there would be no impact.

3.14 PUBLIC SERVICES

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-------------------------------------|
| XIV. Public Services. Would the project: | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.14.1 ENVIRONMENTAL SETTING

Fire protection in Plumas County is provided by 19 local fire protection districts, the U.S. Forest Service, and the California Department of Forestry and Fire Protection (Cal Fire). The majority of the local fire protection districts are staffed by volunteers. The project site is within the Meadow Valley Fire Protection District.

The Plumas County Sheriff’s Office provides law enforcement services for all of Plumas County. The main office is located in Quincy. The nearest station to the project site is located at 50 Abernathy Lane, Quincy. Traffic enforcement services for state highways are provided by the California Highway Patrol (CHP).

The project site is within the Plumas Unified School District (PUSD).

3.14.2 DISCUSSION

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services including fire protection, police protection, schools, or parks.**

No Impact. The proposed project involves the replacement of an existing bridge. The proposed project would not add residents or otherwise increase demand for public services and facilities. There are no public services facilities on the project site or within the immediate vicinity. Therefore, the proposed project would have no impact on public services.

3.15 RECREATION

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| XV. Recreation. Would the project: | | | | |
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.15.1 ENVIRONMENTAL SETTING

Plumas County and the project area are primarily rural. Recreational opportunities include the Plumas National Forest facilities throughout Plumas County, as well as facilities operated by the Bureau of Land Management (BLM), the State of California, and Plumas County.

3.15.2 DISCUSSION

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. The proposed project involves the replacement of an existing bridge. The proposed project does not include any residential development that could increase the use of existing parks or recreational facilities. Therefore, the proposed project would have no impact related to increased use substantially deteriorating existing facilities.

- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No Impact. The proposed project involves the replacement of an existing bridge. The proposed project does not include any residential development that would require new or expanded recreational facilities. Therefore, the proposed project would have no impact related to adverse physical effects due to construction or expansion of recreational facilities.

3.16 TRANSPORTATION/TRAFFIC

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| XVI. Transportation/Traffic. Would the project: | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.16.1 ENVIRONMENTAL SETTING

As discussed in Chapter 2, “Project Description,” the proposed project involves the replacement of the existing Snake Lake Road bridge. During construction activities, a temporary bridge would be available for traffic traveling on Snake Lake Road. Upon completion of the new bridge, the temporary bridge would be removed.

3.16.2 DISCUSSION

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less-than-Significant Impact. The proposed project consists of replacement of an existing two-lane bridge and approach roadways, and installation and removal of a temporary bridge to be available for the duration of construction activities of the permanent structure. The temporary bridge will ensure that Snake Lake Road remains open to traffic for the duration of construction activities.

A small volume of traffic would be generated by project construction vehicles and equipment. However, this additional traffic volume would be relatively small and would consist of employee vehicles travelling to and from the project site, material hauling vehicles, and construction equipment. Given the existing low volume of traffic in the project area, the additional traffic during project construction would not be likely to adversely impact traffic flow in the project area. Furthermore, construction traffic would be temporary and would be eliminated at the end of construction activities.

The replacement bridge would be approximately the same size as the existing bridge. Because of the similarity in size, the new bridge would not be expected to accommodate or generate more traffic than currently or historically experienced by the existing bridge.

Because circulation on the project site (i.e., Snake Lake Road) would be maintained throughout construction activities and the new bridge would not increase traffic demand or capacity, the proposed project would have a less-than-significant impact related to the circulation system.

- b) **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Less-than-Significant Impact. As discussed under item a) above, the proposed project would maintain roadway access throughout construction, would generate only a temporary increase in traffic volumes, and would not generate additional traffic during operation of the new bridge. While the impacts to area congestion could occur during construction, these impacts would be minor because roadway access would be maintained and the small volume of construction traffic. Therefore, the proposed project would have a less than significant impact on area congestion.

- c) **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

No Impact. The proposed project involves a bridge replacement and would not increase air traffic levels. Furthermore, the nearest airport to the project site is approximately 4.5 miles east of the project site. Because the proposed project would not include air traffic activity and is outside the airport influence area, there would be no impact to air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would replace the existing Snake Lake Road bridge with a structure substantially similar in size to the existing bridge. The new bridge would be in the same location as the existing bridge. The proposed project also includes modifications to the bridge approach roadways. The approach roadway improvements would improve safety in the area of the bridge by providing additional room for acceleration and deceleration tapers on Bucks lake Road. Therefore, the proposed project would have no impact related to substantially increasing roadway hazards.

e) Result in inadequate emergency access?

Less-than-Significant Impact. As described above, the proposed project would include closure of the existing bridge and use of a temporary detour bridge. The temporary bridge will ensure that Snake Lake Road remains open to traffic, including emergency vehicles. Therefore, the proposed project would have less than significant impacts on emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The proposed project involved replacement of an existing bridge. The project site is in a rural area of Plumas County and alternative modes of transportation are not readily available in this area. The proposed project would not interfere with any adopted policies, plans, or programs for alternative transportation methods.

3.17 UTILITIES AND SERVICE SYSTEMS

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| XVII. Utilities and Service Systems. Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

3.17.1 ENVIRONMENTAL SETTING

Most utility services in Plumas County are provided by a variety of Community Service Areas (CSAs), Community Services Districts (CSDs), and Public Utility Districts (PUDs). Many of these organizations provide multiple services (e.g., water supply, wastewater collection, wastewater treatment).

Municipal solid waste in Plumas County is transported to the Lockwood Regional Landfill in Sparks, Nevada. The Lockwood Landfill currently receives approximately 5,000 tons of waste per day with an overall capacity of 302.5 million cubic yards (NDEP 2013). Based on an April 2010 aerial survey, Lockwood Landfill contained approximately 32.8 million cubic yards of waste (NDEP 2013).

As discussed in the Chapter 2, "Project Description," excess material excavated from the project site would be disposed of at the USFS Twain disposal site.

3.17.2 DISCUSSION

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less-than-Significant Impact. The proposed project includes replacement of the existing Snake Lake Road bridge and associated roadway improvements. Operation of the proposed project would not generate any wastewater. Construction activities could generate a very minor amount of wastewater, primarily associated with worker hygiene. Because of the small amount of wastewater that would temporarily be generated, it is unlikely that the proposed project would exceed wastewater treatment requirements. Therefore, the proposed project would have a less than significant impact on wastewater treatment requirements.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant Impact. Operation of the proposed project would not generate any demand for water or wastewater treatment. Construction activities would require potable or reclaimed water for dust suppression and housekeeping. However, the amount of water needed would be minimal and would be supplied by water trucks and obtained at a nearby municipal source. Because construction and operation of the proposed project would not require new or expanded water or wastewater facilities, the proposed project would have a less than significant impact related to such facilities.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant Impact. The proposed project involves replacement of the existing bridge and associated roadway improvements. Implementation could result in a small amount of additional impervious surfaces, though this amount would be negligible compared to existing conditions on the project site. Because the proposed project would not require new or expanded storm water drainage facilities, this impact would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less-than-Significant Impact. See response b) above.

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less-than-Significant Impact. See response b) above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less-than-Significant Impact. Project construction would generate solid waste, including excess earth from excavation activities, roadway materials, bridge materials, and general waste. Excess earth materials would be

transported to the USFS Twain disposal site. All other waste would most likely be transported to the Lockwood Regional Landfill in Sparks, Nevada. As discussed above, the Lockwood Landfill was at approximately 10 percent capacity in April 2010 (NDEP 2013). Therefore, it is highly likely that the Landfill would have sufficient capacity to accommodate solid waste generated from construction of the proposed project. Therefore, the proposed project would result in less than significant impacts related to landfills.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less-than-Significant Impact. As discussed above, the proposed project would generate solid waste during construction, but would not generate any solid waste during operation. Construction solid waste would be disposed of in compliance with federal, state, and local statutes and regulation. Therefore, this impact would be less than significant.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

| ENVIRONMENTAL ISSUES | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| XVIII. Mandatory Findings of Significance. | | | | |
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3.18.1 DISCUSSION

- a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**
- b) **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**
- c) **Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less than Significant with Mitigation Incorporated. As discussed in this Initial Study, the proposed project has the potential for impacts related to air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, and hydrology and water quality. However, these impacts would be reduced to a less-than-significant level with the incorporation of mitigation measures discussed in each section. None of the

impacts would be cumulatively considerable, and implementation of the mitigation measures would ensure that substantial adverse effects on humans, either directly or indirectly, would be less than significant.

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APPENDIX A

Documentation for Twain Disposal Site

APPENDIX B

Location Hydraulic Study Form