

# Spanish Creek Bridge Project

PLUMAS COUNTY, CALIFORNIA  
02-PLU-70-PM 35.1/35.5  
373100

## Draft Environmental Impact Report / Environmental Assessment and Section 4(f) Evaluation



Prepared by the  
State of California Department of Transportation  
and the  
U.S. Department of Transportation  
Federal Highway Administration



**November 2006**

## **General Information About This Document**

### ***What's in this document?***

This document is an Environmental Impact Report / Environmental Assessment, which examines potential environmental effects that may result from implementation of the proposed Spanish Creek Bridge project in Plumas County, California. The document describes why the project is being proposed, the existing environment, project alternatives, and potential effects upon the environment. This document was prepared to comply with the California Environmental Quality Act and the National Environmental Policy Act respectively.

### ***What should you do?***

- Please read this Environmental Impact Report / Environmental Assessment.
- We welcome your comments. If you have any questions or concerns regarding the proposed project, please attend the public information meeting and/or send your written questions or comments to Caltrans by the deadline via regular mail to:

Cindy Anderson, Environmental Branch Chief  
California Department of Transportation  
Office of Environmental Management-MS30  
P.O. Box 496073  
Redding, CA 96049-6073

- Submit comments via email to [chris.quiney@dot.ca.gov](mailto:chris.quiney@dot.ca.gov).
- Submit comments by the deadline: February 23, 2007.

### ***What happens after this?***

After comments are received from the public and reviewing agencies, Caltrans may (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project were given environmental approval and funding were appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Equal Employment Opportunity Officer, 1657 Riverside Drive, CA 96001; (530) 225-3055 Voice, or use the California Relay Service TTY number, (530) 225-2019.

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**Replacement of the Spanish Creek Bridge on State Route 70 in Plumas  
County near Keddle**

**DRAFT ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL  
ASSESSMENT AND SECTION 4(F) EVALUATION**

Submitted Pursuant to: (State) Division 13, Public Resources Code  
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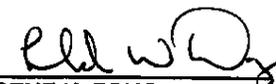
THE STATE OF CALIFORNIA  
Department of Transportation, and

U.S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration

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11/7/2006  
Date of Approval

  
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Division Administrator  
Federal Highway Administration  
California Division

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## Summary

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the Spanish Creek Bridge (Bridge No. 09-0015) on State Route (SR) 70 in Plumas County, post mile 35.3, near the community of Keddie.

SR 70 is a two-lane conventional highway that connects SR 99 near Sacramento in Sutter County and U.S. Route 395 in southeastern Lassen County. The Spanish Creek Bridge is a continuous girder, simple-span steel deck truss structure, in which the deck is carried on the top chord of the truss. The bridge is approximately 600 feet in length and the traveled way is 23 feet wide between curbs.

The purpose of the project is to provide a road crossing that meets modern highway design standards and accommodates interregional transportation needs. The existing Spanish Creek Bridge was constructed in 1932 and is approaching the end of its service life. The bridge exhibits signs of significant structural fatigue, does not meet modern seismic standards, lacks standard shoulder width, and cannot accommodate some large permit loads due to lane width and structural limitations for weight loading.

Due to traffic load restrictions on the existing bridge and the condition of the structural steel, permit loads on this section of SR 70 are often denied. The bridge has an 80,000 lb. maximum load restriction. Fires, landslides, and train derailments have occurred in the Feather River Canyon requiring the deployment of heavy equipment. PG&E, Union Pacific Railroad, and the California Department of Forestry and Fire Protection have been denied access through the area in the past due to the weight restriction. In addition, SR 70 is occasionally used as a secondary route for truck traffic crossing the Sierra Nevada mountain range when Interstate 80 is closed due to weather or other circumstances. Bridges on SR 70 located west of the Spanish Creek Bridge had the same seismic deficiencies and load restrictions. A project to correct these deficiencies was completed in 2006, at which time, the Spanish Creek Bridge became the only remaining structure on SR 70 that limits permit loads. The Spanish Creek Bridge also does not have shoulders, which makes it difficult for maintenance crews to perform work safely.

Two build alternatives and a no-build alternative were developed to address the purpose and need for the project. A fourth alternative (Alternative C) was considered, yet this alternative would only delay the need for eventual replacement of the bridge and it therefore was eliminated from further consideration. However, since this eliminated alternative offered avoidance of impacts to historic resources, it is included in the Section 4(f) Evaluation in Appendix E.

The project alternatives considered are as follows:

- Alternative A entails construction of a new bridge and seismically retrofitting the existing bridge.
- Alternative B involves construction of a new bridge and removal of the existing bridge.
- Alternative D is the “no-build” alternative, which assumes the existing bridge would be maintained and substantial improvements would not be made.

The proposed project also considered two different alignments, Alignments 2 and 4. Alignment 2 has been carried forward, however, Alignment 4 was eliminated from further consideration due to potentially greater impacts upon the environment.

All of the build alternatives would require a construction staging area at each corner of the bridge at highway elevation and beneath the bridge at stream elevation. The main construction staging area would be situated beneath the bridge. An extensive falsework system would be required to support the existing and proposed bridges during construction and demolition. In addition, significant amounts of materials, equipment, and workers would need to be transferred to and from the main construction staging area beneath the bridge. Methods of accessing the main staging area are limited due to the steep terrain. Standard cranes do not have the reach and lifting capabilities, nor are they efficient in terms of speed and the number of tasks they can accomplish in a given timeframe. Construction of temporary construction access roads from the highway elevation to the area beneath the bridge is not a desirable option due to additional construction timeframes and costs, and greater environmental impacts. Construction timeframes and costs would increase due to the need for extensive vegetation removal and earthwork, substantial erosion control requirements, and construction of earth retaining structures to support access roads on steep embankments. The creation of such access roads would result in increased environmental impacts due to factors such as increased vegetation removal, erosion potential, habitat destruction, aesthetic impacts, and a prolonged construction timeframe. To avoid these adverse effects related to the construction of temporary access roads, it is proposed to utilize the existing Spanish Creek Campground access road. The paved access road has sufficient width and leads to an open area at stream grade where a temporary trestle could be constructed to access the opposite side of the creek. From that point, the road could be extended to the main staging area, avoiding some of the larger trees. For safety purposes, the campground would be closed for the duration of major bridge construction operations. An assessment of impacts upon the campground and proposed mitigation measures are discussed in the Section 4(f) Evaluation in Appendix E.

Depending on the project alternative chosen, additional highway right-of-way may be required. In addition, the build alternatives would require relocation of existing overhead electric utility lines.

An optional disposal site will be designated in the project contract for waste materials such as excess dirt, obliterated pavement, Portland cement concrete and reinforcing steel and steel bridge members. If the contractor chooses to utilize a different disposal site, the contractor must provide evidence to Caltrans that an evaluation was conducted in accordance with the California Environmental Quality Act (CEQA).

The proposed project is a joint undertaking by Caltrans and the FHWA and is subject to state and federal environmental laws. Project documentation, therefore, has been prepared in compliance with both the CEQA and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under CEQA and the FHWA is lead agency under NEPA.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a "lower level" document is prepared for NEPA. One of the most commonly seen joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

Following receipt of public comments on the Draft EIR/EA and circulation of the Final EIR/EA, the lead agencies will be required to take actions regarding the environmental document. Caltrans will determine whether to certify the EIR and issue Findings and a Statement of Overriding Considerations and FHWA will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS).

*Summary*

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Following are some of the consequences and estimated construction costs for the respective Alternatives:

	<b>Alternative A</b> (new bridge/seismic retrofit existing bridge)	<b>Alternative B</b> (new bridge/demolish existing bridge)	<b>Alternative D</b> ("no build")
Significant effect upon Historic Bridge	Yes	Yes	Eventually
Require use of Campground	Yes	Yes	No
Affect Historic Highway District	Yes	Yes	No
Satisfy Purpose & Need	Yes	Yes	No
Estimated Construction Cost (\$millions) from 2003 PSSR	\$29.2	\$21.3	N/a

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

1. there is no prudent and feasible alternative to using that land; and
2. the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

The following Section 4(f) resources have been identified: The Spanish Creek Bridge, Feather River Highway Historic District, Spanish Creek Campground, Maxwell Ditch segment, and the Utah Construction Road segment.

The following regulatory permits and coordination will be necessary:

- California Department of Fish Game, Region 2 - Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game code.
- United States Army Corps of Engineers, Sacramento District – Department of the Army permit pursuant to Section 404 of the Clean Water Act.
- Regional Water Quality Control Board, Central Valley Region - Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- State Office of Historic Preservation - Consultation on Area of Potential Effects, Eligibility and Effects Determination, and Memorandum of Agreement, including a Historic Property Treatment Plan pursuant to Section 106 of the National Historic Preservation Act.
- U.S. Department of Agriculture, Plumas National Forest - Consultation regarding NEPA compliance and temporary and permanent easements on Forest land.

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# Chapter 1 Proposed Project

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## 1.1 Introduction

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the Spanish Creek Bridge (Bridge No. 09-0015) on State Route (SR) 70 in Plumas County, post mile 35.3, near the community of Keddie (Exhibits 1 & 2).

SR 70 is a two-lane conventional highway that connects SR 99 near Sacramento in Sutter County and U.S. Route 395 in southeastern Lassen County. The annual average daily traffic volume on SR 70 in the project vicinity is 1,500 vehicles westbound and 3,050 vehicles eastbound.<sup>1</sup> The route is a designated National Scenic Byway from 10 miles north of Oroville to its terminus at U.S. Route 395 in Lassen County. The California Division of Highways constructed what was then known as the Feather River Highway between 1927 and 1932. The Feather River Highway Historic District, a 48-mile section of SR 70 from Jarbo Gap to Keddie, was determined eligible for listing in the National Register in April 1987. The Spanish Creek Bridge was designed by the California Division of Highways and was constructed in 1932. The bridge is a contributing element of the highway historic district and is eligible for inclusion in the National Register of Historic Places on its own merit.

In 1993, the Spanish Creek Bridge was combined with three other bridges in the Feather River Canyon, Rock Creek, Storrie, and Tobin, for a seismic retrofit and structural rehabilitation project. However, the project was postponed so that the funding could be used for emergency projects on Interstate 5 and SR 97 in Siskiyou County. Subsequently, two separate projects were developed to address the need for seismic upgrades and bridge rehabilitation in the Feather River Canyon. One project included Rock Creek, Storrie, Tobin, Pulga, and Howell's Bridges. The other project was for the Spanish Creek Bridge. The multiple bridges project was completed in 2006.

## 1.2 Purpose and Need

The purpose of the project is to provide a road crossing that meets modern highway design standards and accommodates interregional transportation needs. The existing Spanish Creek Bridge was constructed in 1932 and is near the end of its

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<sup>1</sup> Annual average daily traffic is the total volume for the year divided by 365 days. Counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present.

service life. The bridge exhibits signs of significant structural fatigue, does not comply with modern seismic standards, lacks standard shoulder width, and cannot accommodate some large permit loads due to lane width and structural limitations for weight loading.

Due to traffic load restrictions on the existing bridge and the condition of the structural steel, permit loads on this section of SR 70 are often denied. The bridge has an 80,000 lbs. maximum load restriction. Fires, landslides, and train derailments have occurred in the Feather River Canyon requiring the deployment of heavy equipment. PG&E, Union Pacific Railroad, and the California Department of Forestry and Fire Protection have been denied access through the area in the past due to the weight restriction. In addition, SR 70 is occasionally used as a secondary route for truck traffic crossing the Sierra mountain range when Interstate 80 is closed due to weather or other circumstances. Bridges located downstream of the Spanish Creek Bridge had the same seismic deficiencies and load restrictions. Projects to correct these deficiencies were completed in 2006, which leaves the Spanish Creek Bridge as the one remaining structure on SR 70 that limits permit loads. The Spanish Creek Bridge also does not have shoulders, which makes it difficult for maintenance crews to perform work safely.

### **1.3 Project Description**

This section describes the proposed project and the design alternatives that were developed by a multi-disciplinary team to address the project purpose and need while minimizing impacts to the environment. The alternatives include:

- Alternative A - construction of a new bridge and seismically retrofitting the existing bridge.
- Alternative B - construction of a new bridge and removal of the existing bridge.
- Alternative D - “no build” alternative, which assumes the existing bridge will be maintained and substantial improvements will not be made.

Two different highway alignments and four bridge types were considered for Alternatives A and B, which include replacement structures. The alignments, 2 and 4 (Exhibit 3), are west of and parallel to the existing highway. Alignment 2 would place the new bridge approximately 40 feet west of the existing bridge, centerline to centerline, while Alignment 4 would place the new bridge roughly 285 feet west of the existing bridge. A decision was made to eliminate Alignment 4 and proceed with Alignment 2 based on the following:

- Preliminary engineering studies indicate that Alignment 4 would require a substantial earth retaining structure on the south side of the proposed bridge to avoid the massive amount of excavation that would otherwise be required to obtain a 1:2 (vertical/horizontal) cut slope. Even with an earth retaining structure, this alignment would produce a substantial amount of excess dirt and rock. Although Alignment 4 reduces the curvature of the highway immediately north and south of the bridge, there is no documented accident history indicating a need to reduce the curvature of the roadway at this location.
- Alignment 4 would cross over the Union Pacific Railroad tunnel. A preliminary geological report indicates that the material is comprised of hard volcanic rock that would require blasting. The cost to excavate and dispose of this material is estimated to be three times that of the earthwork costs associated with Alignment 2. Alignment 2 eliminates the need to traverse the Union Pacific Railroad tunnel on the south side of the creek because it is close to the existing highway and conforms with the adjoining highway prior to reaching the railroad tunnel. This would alleviate some concerns related to the structural integrity of the tunnel. Blasting will likely be necessary in the construction of the southern bridge approach and adjoining highway section of Alignment 2.
- Alignment 2 would require less excavation because it is closer to the existing roadbed and conforms to the existing highway sooner than the other alignment. Although earthwork quantities have not been calculated, based on engineering judgment, Alignment 2 would require significantly less excavation. This would minimize construction costs, unsightly cuts and fills, vegetation removal, and disturbed areas subject to erosion.
- Alignment 2 would require less right-of-way because it is the shorter alignment and it is closer to the existing highway.
- Alignment 2 would significantly reduce encroachment within the Spanish Creek Campground.

The four bridge types considered for Alternatives A and B include: 1) steel plate girder, 2) concrete box girder, 3) open-spandrel arch box girder, and 4) open-spandrel arch slab. Photo simulations of each of these bridges at the project location are shown in Exhibit 4. The criteria used for bridge type selection include foundation requirements, cost, and aesthetics. The open-spandrel arch box girder bridge is the preferred bridge type because of its relatively low cost, low maintenance, and its aesthetic compatibility with the surrounding area. This type of bridge is characteristic of early bridges that were found in the lower reaches of the Feather River Canyon prior to the creation of Lake Oroville. The bridge would have two traffic lanes 12 feet

in width and eight foot wide shoulders. A galvanized steel horizontal rail system would be installed on the bridge.

The method of construction will be left to the discretion of the contractor. Project plans and specifications will identify the desired outcome for each aspect of the project. For example, pilings shall be installed to a specified depth. The specifications do not always direct the contractor how to perform the work necessary to achieve the desired outcome. The contractor therefore could use various methods or types of equipment to achieve the required pile depth.

All of the build alternatives would require construction staging areas at each corner of the bridge at highway elevation and beneath the bridge at stream elevation. The main construction staging area would be situated beneath the bridge. Given the depth and required span of the highway crossing, construction from above utilizing cranes is not an option. Cranes typically used in bridge construction would not have the reach and lifting capability needed to construct the bridge from above. A crane large enough to perform this work is not standard for the industry and would limit the number of qualified contractors. The cost and timeframe for construction would increase due to the expense of mobilizing and setting up such a large piece of equipment. In addition, since the crane is only capable of performing one task at a time, it would be inefficient as a primary method of transferring equipment and materials to the area beneath the bridge.

Significant amounts of materials would be delivered to the construction staging area, including concrete, lumber, and reinforcing steel. In addition, equipment such as cranes, excavators, and concrete trucks would need to gain access to and operate from the main staging area beneath the bridge. Methods of accessing the area beneath the bridge are limited. The north slope of the Spanish Creek canyon is almost vertical in the vicinity of the bridge. Construction of a temporary road system would only be possible on the south side and would result in considerable vegetation removal, ground disturbance, and increases in the cost and duration of the construction process. Earth retaining structures and switchbacks would be necessary due to the steepness of the slopes. This disturbance would create slopes adjacent to Spanish Creek that are prone to erosion. Construction of a new access road from SR 70 to the area beneath the bridge would require an additional year of construction.

To avoid the adverse effects associated with these options, it is proposed to utilize the existing Spanish Creek Campground access road. The primary access and staging areas proposed for construction are shown in Exhibit 5. The campground road is wide and paved and leads to an open area at stream elevation where a temporary trestle could be constructed to access the opposite (south) side of the creek. For safety reasons, the campground would be closed for the estimated three-

year period required for major bridge construction activities. From the trestle location on the south side of the creek, a temporary road could be constructed to provide access to a staging area beneath the bridge. It would be possible to align the road such that it avoids some of the larger trees that exist in this area. The area for the proposed access road is above the base floodplain and is flat enough that erosion would not be a significant concern. Placement of gravel and/or asphalt on the temporary roadway could be necessary due to the anticipated weight and volume of truck traffic. It is likely that the deck of the temporary trestle would be removed each year during the rainy season so the structure would not interfere with high flows.

A level work pad would be required beneath the bridge to facilitate construction and demolition operations. Since the creek is relatively shallow at this location, it is likely that a culvert(s) would be placed in the creek channel for the length of the existing and proposed bridges. Clean cobbles, construction fabric, and a layer of gravel could then be placed over the culvert(s) to create a level work pad. The culverts and rock could be removed each winter prior to the onset of winter rains.

If Alternative A or B were implemented, traffic would continue to utilize the existing bridge during construction. Once the new bridge and adjoining sections of highway were completed, traffic would be shifted to the new alignment. The temporary staging areas, access road, and trestle would be removed upon completion of the project.

Other items of work proposed for the project include:

- Reconstruction of the highway storm water system and campground entrance.
- Repair and/or restoration of Plumas National Forest (PNF) land, including but not limited to, grading, vegetation, campsites, and campground road.
- Re-striping and signing on the highway.
- Construction of a paved pullout on SR 70 opposite the campground entrance for Caltrans' Bridge Maintenance crew.

Depending on the alternative chosen, additional highway right-of-way and utility relocations could be required.

An optional disposal site will be designated in the project contract for waste materials such as excess dirt, obliterated pavement, Portland cement concrete, and reinforcing steel and steel bridge members. If the contractor chooses to utilize a different disposal site, the contractor must provide evidence to Caltrans that an evaluation was conducted in accordance with CEQA.

## 1.4 Alternatives

Project alternatives were developed based upon preliminary environmental and engineering studies, public input, and a value analysis study. Value analysis is defined by Caltrans as “the process used to improve the quality and reduce the cost of transportation projects and other Caltrans programs.” Four project alternatives were generated by a Value Analysis team. Three of the alternatives were carried forward and one alternative, Alternative C, was eliminated from further consideration because it did not fully address the project purpose and need.

Final selection of a project alternative will not be made until after the full evaluation of environmental impacts, consideration of public input, and approval of the Final EIR/EA. Following is a summary of the project alternatives:

### 1.4.1 Alternative A (Build New Bridge and Seismic Retrofit Existing Bridge)

Alternative A entails construction of a new bridge and seismic retrofit of the existing bridge. The new bridge would be situated west of and parallel to the existing bridge. Seismically retrofitting the existing bridge would not address the fatigue critical condition of the structural steel, therefore, only bicyclists and pedestrians would be allowed on the existing bridge. This alternative satisfies the purpose and need criteria because it includes construction of a new bridge. Alternative A would be the environmentally superior build alternative because the existing bridge and highway alignment could be preserved to some extent. Everything else being equal, alternative B proposes removal of the old bridge and obliteration of the adjoining sections of highway.

### 1.4.2 Alternative B (Build New Bridge and Remove Existing Bridge)

Alternative B proposes construction of a new bridge and removal of the existing bridge. The proposed bridge would be an open-spandrel arch concrete box girder bridge situated immediately west of and parallel with the existing bridge. Alternative B satisfies the purpose and need criteria and provides a new bridge that is compatible with the historic and scenic attributes of the Feather River highway corridor.

Construction of a replacement bridge on a new alignment would simplify construction because traffic would be able to remain on the existing bridge until construction of the new bridge was completed. Removal of the existing bridge would eliminate costs associated with rehabilitation and maintenance, reduce the safety hazards associated with routine maintenance, eliminate potential hazardous waste issues involved with maintenance of the paint system that protects the metal structure, and

most importantly, it would address the planned disposition of the existing bridge, which is becoming progressively less stable.

### **1.4.3 Alternative D (No Build)**

The “no build” alternative assumes that the existing bridge would be maintained and substantial improvements would not be made. The structural integrity of the bridge would continue to deteriorate and permit loads would continue to be limited due to the width and weight capacity of the bridge. Structure maintenance costs would increase and the safety of maintenance workers and traveling public would be compromised due to the narrow width of the bridge deck and the inherent dangers associated with maintaining this type of structure. Because the structural integrity of the bridge would continue to decline, rehabilitation or replacement would have to be addressed in the future.

## **1.5 Alternatives Considered but Eliminated from Further Discussion**

### **1.5.1 Alternative C (Rehabilitate Existing Bridge)**

Alternative C entailed rehabilitation of the existing structure to increase the load bearing capacity and meet current seismic standards. It was estimated that this work would extend the service life of the structure up to 25 years, after which time another major rehabilitation project would be necessary.

The rehabilitation project would not entirely address fatigue cracks and distortion in the steel members, which are present throughout the structure due to its age. Calculations show that the bridge is at or near the end of its fatigue service life. The bridge is currently classified as fracture critical, meaning that the potential exists for catastrophic collapse. The only way to reliably eliminate the fatigue problem is to replace every critical member in the bridge. Feasibility notwithstanding, the historical integrity may be lost in the process and would only postpone replacement of the bridge.

In addition, the rehabilitation does not address the substandard width of the existing structure, which poses a hazard for routine bridge maintenance.

This alternative was eliminated from further discussion because it does not address the fact that the entire structure is at or near the end of its fatigue service life. In addition, this alternative would postpone, at great expense, the eventual loss of the historic integrity of the structure due to successive rehabilitation efforts.

Rehabilitation of the bridge would be difficult due to the nonstandard shoulder widths. Traffic and construction delays would occur due to the limited width, which in turn would result in higher construction and user delay costs. Worker and motorist safety would also be compromised. Rehabilitation of the structure also requires maintenance of the paint system, which contains lead paint.

An option to rehabilitate the bridge and widen the deck to obtain standard eight-foot wide shoulders and accommodate wide permit loads was also evaluated by Caltrans' Office of Structure Design. However, this option was not considered feasible due to various factors. Widening would require replacement of the floor beams and other parts of the deck system, which would require complete closure of the bridge during construction. Replacing the floor beams would also raise the profile of the bridge. The existing trusses have deficiencies with the current loads and therefore would not be adequate for the additional loading of a wider deck. It is likely that additional trusses and support towers would be required to carry the additional load. This work would affect the visual appearance of the bridge to the extent that the historical integrity would be adversely affected. Given the problems associated with widening, it was determined that widening is not a feasible alternative.

## 1.6 Permits and Approvals

- California Department of Fish Game, Region 2 - Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game code.
- United States Army Corps of Engineers, Sacramento District – Department of the Army permit pursuant to Section 404 of the Clean Water Act.
- Regional Water Quality Control Board, Central Valley Region - Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- State Office of Historic Preservation - Consultation regarding National Register eligibility, Finding of Effects, and mitigation of adverse effects.
- U.S. Department of Agriculture, Plumas National Forest - Consultation regarding NEPA compliance and temporary and permanent easements on forest land.

## **Chapter 2** Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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### **2.1 Cultural Resources**

“Cultural Resources” as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places (National Register). Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement (PA) among the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA takes the place of the Advisory Council’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans.

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the “use” of land from historic properties. See Appendix E of this document for specific information regarding Section 4(f).

Historical resources are considered under the CEQA, as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

The Feather River Highway Historic District, a section of SR 70, was determined eligible for the National Register through the consensus process on April 16, 1987 under Criteria A and C. The district comprises the width of the highway right-of-way over a distance of some 48 miles between Jarbo Gap in Butte County and Keddie in Plumas County. Contributing elements include the overall length and width of the highway, cuts and fills, bridges and tunnels, stone masonry walls and parapets, stone masonry drinking fountains, and culverts.

The Spanish Creek Bridge was determined individually eligible for the National Register on January 9, 1986, as one component of the Historic Truss Bridges of California Thematic Determination of Eligibility under Criterion A. The Spanish Creek Bridge (Brg. No. 09-0015) is a riveted steel deck truss carried on tall K-truss tower piers; its main spans are 142 feet long. Designed by the Bridge Department of the Californian Division of Highways and built in 1932, the bridge carries SR 70 highway above Spanish Creek. This bridge is significant primarily as a historical transportation link, serving one of the major crossings on SR 70. It also is a contributive element of the Feather River Highway Historic District.

Portions of a historic water ditch and wagon road are also located within the project limits. The Maxwell Ditch is a water conveyance system associated with a hydraulic gold mine. The Utah Construction Road is a wagon road constructed by the Western Pacific Railroad to support construction of the railroad. The Maxwell Ditch stretches miles beyond the project limits, as does the Utah Construction Road, portions of which may also exist in Nevada and Utah. Due to the length of these resources in relation to the segments present within the limits of the bridge project, formal evaluation for eligibility to the National Register is beyond the scope of the bridge project. Therefore, for purposes of the bridge project, Caltrans presumed that both resources are eligible for the National Register and that they will be adversely affected by the project.

The State Office of Historic Preservation issued a letter of concurrence on May 3, 2006, which concluded consultation on eligibility determinations relative to the project.

### **2.1.1 Impacts**

Alternatives A and B propose construction of a new bridge immediately west of and parallel to the existing structure. A portion of SR 70 adjoining each end of the bridge would be realigned to conform to the new bridge alignment. Alternative A proposes seismically retrofitting the existing bridge and preserving it for pedestrian and bicycle use. Alternative B proposes demolition of the existing bridge. Both alternatives

would result in a finding of adverse effect to the Spanish Creek Bridge, Feather River Highway Historic District, Maxwell Ditch, and the Utah Construction Road.

### **2.1.2 Avoidance, Minimization, and/or Mitigation Measures**

Avoidance of adverse effects upon historical resources relative to the proposed project is attainable only with Alternative D, the No-Build Alternative. Even then, over time, deterioration would have detrimental effects upon the bridge and the highway historic district. Impacts to the bridge and highway historic district are minimized utilizing Alternative A since the bridge would not be removed.

Mitigation proposed for adverse effects upon the Spanish Creek Bridge, Feather River Highway Historic District, Maxwell Ditch segment, and the Utah Construction Road segment associated with implementation of Alternatives A or B include construction of an interpretive trail and overlook within the upper limits of the Spanish Creek Campground near the bridge site. The trail and overlook would utilize a short length of an isolated segment of the abandoned Quincy-Westwood Highway that passes beneath the northern approach span of the Spanish Creek Bridge. The trail and overlook would be accessible from within the campground, with handicap parking and access available near the campground entrance. The overlook would provide a vantage point for views of the new bridge, the former bridge location, Spanish Creek, and sections of the Union Pacific Railroad. Interpretive information at the overlook would include photographs and information about the historic bridge, the Feather River Highway Historic district, the Maxwell Ditch, the Utah Construction Road, and the railroad.

In addition, Caltrans would propose recordation of the Spanish Creek Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.

## **2.2 Land Use and Planning**

### **2.2.1 Existing and Future Land Use**

SR 70 in the project vicinity is a two-lane highway located by easement within the PNF, Mount Hough Ranger District. Surrounding land use is designated as multi-use recreational, which allows public access for various recreational activities and permitted activities such as hiking, fishing, boating, camping, gold mining and timber harvesting. The Spanish Creek Campground is located at the northwest quadrant of the Spanish Creek Bridge.

A Pacific Gas & Electric substation is located near the northeast quadrant of the bridge. Union Pacific Railroad facilities are located adjacent to the eastern and southern limits of the project site.

### **2.2.1.1 Impacts**

Implementation of Alternatives A and B would place a new bridge approximately 40 feet west, measured centerline to centerline, of the existing bridge, which would require shifting the adjoining sections of the highway westerly. The campground entrance would be shifted westerly also. A total of approximately 3.04 acres of new highway right-of-way would be required, comprised of 2.98 acres from PNF and 0.06 acre from the Union Pacific Railroad. Union Pacific Railroad infrastructure and operations would not be affected by the potential right of way acquisition.

### **2.2.1.2 Avoidance, Minimization, and/or Mitigation Measures**

Alternative D, the No-Build alternative, would avoid impacting the Spanish Creek Campground entrance and the need to acquire new highway right of way from PNF and the Union Pacific Railroad. If Alternative A or B were implemented, the Spanish Creek Campground entrance would be completely reconstructed on the new highway alignment. Caltrans would ensure that the campground entrance is constructed in accordance with modern highway design standards and that it meets the needs of PNF.

## **2.2.2 Parks and Recreation**

SR 70 within the project limits traverses PNF Land. The Spanish Creek Campground, which is administered by PNF, is located at the northwest quadrant of the Spanish Creek Bridge. The campground accepts reservations and is in operation from Memorial Day weekend to Labor Day weekend. The campground has 20 campsites, vault toilets, potable water and a campground host.

The campground borders Spanish Creek, which is popular for swimming, boating and trout fishing. Several contiguous placer gold mining claims are located within the project limits on Spanish Creek.

### **2.2.2.1 Impacts**

The build alternatives would require use of the Spanish Creek Campground access road to gain access to the area beneath the existing and proposed bridges. For safety reasons, the campground would be closed for the estimated three-year period required for major bridge construction activities. A Section 4(f) Evaluation is included in Appendix E. This document evaluates potential impacts to the Spanish Creek Campground, measures to avoid and minimize impacts, and proposed mitigation for unavoidable impacts.

Access to certain areas within gold mining claims would be restricted during construction. In addition, removal or displacement of materials and placement of permanent structures could occur within the boundaries of the claims.

A section of Spanish Creek, from the bridge to the proposed temporary trestle location, would be closed to boaters during construction of build alternatives.

### **2.2.2.2 Avoidance, Minimization, and/or Mitigation Measures**

If excavations or placement of a permanent structure were required within a mining claim, Caltrans would provide fair market value compensation to the claim holder(s).

Boaters would be notified of any stream closures through press releases and signage on the creek, upstream of the work area.

## **2.3 Utilities**

A Pacific Gas & Electric overhead transmission line (60KV and 12KV) runs parallel to the west side of SR 70 within the project limits. The utility line crosses SR 70 at the extreme southerly project limits and near the entrance to the Spanish Creek Campground. An electrical substation is located on the west side of SR 70 opposite the Spanish Creek Campground entrance. Telephone service may also be located on the same utility poles.

A domestic water well for the Spanish Creek Campground is located adjacent to SR 70 and the campground entrance and is not likely to be affected by the project.

### **2.3.1 Impacts**

Alternatives A and B would result in a slight westerly shift in the highway alignment to conform with the new bridge alignment. Approximately four utility poles at the substation crossing would need to be adjusted slightly to accommodate the shift in highway alignment. The utility lines would not be moved any closer to the campground.

### **2.3.2 Avoidance, Minimization, and/or Mitigation Measures**

Any required utility relocation would be performed prior to the beginning of bridge construction. The Spanish Creek Campground water supply well head would be delineated on the plans and protected during construction.

## 2.4 Visual/Aesthetics

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state “with...enjoyment of aesthetic, natural, scenic, and historic environmental qualities.” [California Public Resources Code Section 21001(b)]

SR 70 is a designated National Scenic Byway from 10 miles north of Oroville to its terminus at U.S. Route 395 in Lassen County. The project is located in mountainous terrain, heavily forested with conifers and oaks. Views are confined to the immediate hills and steep terrain surrounding Spanish Creek. The highway is approximately 140 feet above the creek. Two separate sections of Union Pacific Railroad tracks are visible at the southeast and southwest limits of the project. A Plumas National Forest campground abuts the northwest end of the Spanish Creek Bridge. Due to the steep forested terrain and the straight alignment of the bridge, motorists do not have a view of the bridge’s steel superstructure, which is painted green. As previously discussed, the bridge is determined eligible for the National Register of Historic Places. Vantage points for viewing the superstructure are accessible from the adjacent campground.

### 2.4.1 Impacts

Implementation of one of the build alternatives would result in the disturbance of approximately 10.1 acres, which includes temporary staging areas, access roads, and realignment of the highway. Large conifers would be removed from the area southwest of the bridge to make a temporary construction access road parallel to Spanish Creek. Additional conifers and oaks would be removed from PNF land adjacent to the west side of SR 70 due to the necessary shift in the highway alignment. If Alternative B is selected, the project would result in the removal of the historic bridge.

### **2.4.2 Avoidance, Minimization, and/or Mitigation Measures**

Selected trees within proposed temporary staging areas and upon access roads would be marked for preservation by avoidance. The selection of trees would be based upon factors such as aesthetics, ability to avoid (constructability), and age of tree. Woody vegetation would be replaced on PNF lands either by Caltrans or by PNF with funding provided by Caltrans. A new road connection and signage would be installed at the entrance to the Spanish Creek Campground.

Abandoned sections of highway would be obliterated, graded, and restored with native vegetation. Planting of woody vegetation would not occur within the clear recovery zone of the highway, which is 20 feet from the edge of the traveled way.

The proposed bridge type for the build alternatives is an open-spandrel arch concrete box girder bridge. This type of bridge, reminiscent of early bridges in the region, is an aesthetically pleasing structure that fits the scenic and historic character of the Feather River highway corridor.

## **2.5 Water Quality and Storm Water Runoff**

The project is located on Spanish Creek, within the Feather River watershed, in the Sacramento River Drainage Basin. The project is approximately 3.3 miles upstream of the confluence of Indian Creek and the East Branch of the North Fork Feather River.

The primary federal law regulating water quality is the Clean Water Act. Section 401 of the Act requires a water quality certification from the State Water Resources Control Board (SWRCB) or the Regional Water Quality Control Board (RWQCB) when a project: 1) requires a federal license or permit (a Section 404 permit from the U.S. Army Corps of Engineers is the most common federal permit for Caltrans projects), and 2) will result in a discharge to waters of the United States.

Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Clean Water Act Section 402 the SWRCB has issued a NPDES Statewide Storm Water Permit to regulate storm water discharges from Caltrans facilities both during and after construction, as well as from existing facilities and operations. The Statewide Storm Water Permit requires Caltrans to comply with the requirements of the General Construction Permit issued by the SWRCB to regulate discharges from construction activities which includes clearing, grading, disturbance to the ground, such as stockpiling or excavation, that results in soil disturbances of at least one acre

of total land area. Construction activity that results in soil disturbances of less than one acre is subject to the General Construction Permit if the construction activity is part of a larger common plan of development that encompasses one or more acres of soil disturbance, or if there is significant water quality impairment resulting from the activity. The Statewide Storm Water Permit requires development of a Storm Water Pollution Prevention Plan (SWPPP) to address water pollution control. The SWPPP is prepared by the contractor and is subject to Caltrans' approval. The SWPPP identifies construction activities that may cause pollutants in storm water and the temporary best management practices (BMPs) that will be utilized to control these pollutants.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act and Pollution Prevention Act. State water quality laws are codified in the California Water Code, Health and Safety Code, and Fish and Game Code Sections 5650-5656.

### **2.5.1 Impacts**

The primary constituent of concern for the build alternatives would be sediment, both during and after construction. During construction there could be temporary adverse impacts due to increased erosion that could eventually be transported into storm drains and receiving waters. After construction, newly planted cut and fill slopes would have the potential for sediment transport from slope rills and slumps if not properly maintained.

The proposed work would disturb a total of approximately 10.1 acres. Earth disturbing activities would include realignment of a section of SR 70 to conform with the new bridge, reconstruction of a portion of the campground entrance road, excavations for bridge foundations, creation of temporary construction staging/storage areas in upland areas, and construction of temporary access roads for construction, including construction of multiple temporary stream crossings. These activities would have the potential to create areas of unstable soils, which are subject to erosion. Soil erosion can result in the transport of sediment into surface waters and turbidity.

Construction of a new bridge and demolition of the existing bridge (Alternative B) would result in temporary and permanent impacts within Spanish Creek. Temporary impacts would result from the removal of riparian vegetation, stream bank modifications for access into the stream channel, stream diversions and/or dewatering of the work area, construction of temporary stream crossing structures, and the placement of fill within the stream channel to create a temporary work pad. These impacts could result in increases in turbidity and suspension of solids.

Additionally, the existing bridge is known to contain lead paint. Demolition of the existing bridge could introduce lead containing paint chips into Spanish Creek.

Downstream on Spanish Creek within the lower reach of the Spanish Creek Campground, a temporary trestle would be installed to provide access to the opposite side of the creek. It is likely that the trestle would be supported by steel piles. Upstream beneath the bridge, stream diversions and a work pad consisting of clean cobbles would be necessary for bridge construction and demolition. It is likely that culverts would be placed beneath the cobble pad to maintain the stream flow. In addition to providing a level work platform, the cobble work pads would provide a foundation for falsework erection and an area upon which to collapse the old bridge. Falsework is a temporary structure comprised of wood and/or steel which supports the bridge while it is under construction. The vertical support members of the falsework system would be driven into the streambed. Construction of the temporary work pad would result in the placement of fill temporarily upon approximately 0.3 acre of stream channel. All construction materials would be removed from the streambed following construction except for the bottom layer of the cobble pad that would likely be spread evenly throughout the channel.

The new bridge drainage system would be similar to those on the existing bridge. The bridge would have scuppers or down drains to remove storm water from the traveled way to prevent accumulations and/or freezing of water. The storm water would be discharged beneath the bridge directly to upland areas or the creek channel. The volume of storm water would be increased slightly due to an increase in bridge width. Highway storm water may contain traction sand, de-icing agents and other contaminants typically found on the highway.

Realignment of the adjoining sections of highway to conform with a new bridge alignment would require reconstruction of the highway drainage system. The slight increase in impervious pavement and new cut and fill slopes would result in concentrated water flows.

The “no build” alternative would result in increased potential for the introduction of lead containing paint into the environment due to the aging paint system and the increasing need for maintenance on the structure.

### **2.5.2 Avoidance, Minimization, and/or Mitigation Measures**

The contractor would be required to prepare a SWPPP, which would identify potential sources of pollution related to construction and temporary BMPs that would be implemented to protect water quality. The SWPPP must be approved by the Resident Engineer and would include appropriate temporary construction BMPs to

address soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management.

It is proposed to include the following BMPs in the project plans if one of the build alternatives is approved:

- Cut and fill slopes shall receive a hydro-seed application of mulch, stabilizing emulsion, fertilizer, and seed and tree planting to provide a vegetated surface to a minimum of 70 percent background native vegetation or equivalent.
- Asphalt dikes and overside drains with rock energy dissipaters will be installed in areas of concentrated flows near fill slopes.
- Drainage conveyance systems will be designed with consideration of downstream effects.
- Drainage culverts will be designed with flared end sections and outlet protection/velocity dissipation devices.
- Traction sand devices will be installed where feasible to collect traction sand.
- Where feasible, storm water runoff will be designed to sheet flow over vegetated fill slopes for bio-filtration.

The contractor would be required to adhere to Caltrans' standard specifications and special provisions pertaining to water quality. The standard specifications pertaining to water quality include dust control, clearing and grubbing, earthwork, erosion control, and water pollution. In addition, the contractor would be required to comply with the terms and conditions of regulatory permits issued by the Department of Fish & Game, the Regional Water Quality Control Board, and the Army Corps of Engineers. Appropriate regulatory guidelines would be followed for any dewatering, and if required, siphoning operations within live streams.

Implementation of the above mitigation measures and adherence to Caltrans' contract plans, specifications and special provisions, including regulatory permit conditions, would ensure that water quality impacts were reduced to a level below significance with respect to CEQA.

## 2.6 Hazardous Waste

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper management of hazardous material is vital if it is disturbed during project construction

### **2.6.1 Impacts**

An Initial Site Assessment (ISA) was performed to determine if potential sources of hazardous waste exist within the project limits. The ISA entailed a review of hazardous waste databases, as-built plan sheets, and a site visit. It was determined that the project site is not listed on the April 1998 State List of Hazardous Waste Sites, also referred to as the “Cortese List.” The following potential hazardous waste issues were identified during the ISA:

- Lead Containing Paint (LCP)
- Asbestos Containing Materials (ACM)

#### **Lead Containing Paint**

Lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some industrial paints. Caltrans Structures Maintenance personnel reported that the original paint system on the Spanish Creek Bridge was lead based primer and paint. Paint samples taken from the bridge truss and girder system during a site investigation confirmed the presence of lead containing paint. Soils beneath the bridge were also sampled for lead, to a maximum depth of two feet, due to historical bridge maintenance activities including sandblasting and repainting operations. Test results indicate lead levels above regulatory hazardous waste thresholds in the area beneath and adjacent to the existing bridge, including proposed highway Alignment 2.

Traffic striping paint and thermoplastic striping present on the road surface may contain heavy metals, including lead. When the striping is removed exclusive of the asphalt concrete by grinding or abrasive blasting, the residue may contain high concentrations of heavy metals.

### **Asbestos Containing Material**

ACM has been commonly used in bearing pads and joint filler material for bridge abutment and expansion joints. A site investigation detected no ACM on the bridge. However, not all areas of the bridge may be accessible for sampling and therefore the investigation cannot conclusively report an absence of ACM.

#### **2.6.2 Avoidance, Minimization, and/or Mitigation Measures**

All paints on the bridge should be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during any bridge maintenance, renovation or demolition activity.

The contractor shall prepare a project specific lead compliance plan in accordance with the Cal/OSHA lead standard (CCR Title 8, Section 1532.1) to prevent or minimize worker exposure to lead. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of lead containing materials. In addition, the contractor is responsible for characterizing and segregating wastes prior to disposal.

Excavated soils in the vicinity of the existing bridge should either be 1) managed and disposed of as a California hazardous waste or, 2) stockpiled separately and re-sampled to confirm total and soluble lead concentrations for disposal and/or reuse evaluation.

Traffic striping paint and/or thermoplastic striping removed from the road surface, exclusive of the asphalt concrete, by grinding or abrasive blasting shall be managed and disposed of as a California hazardous waste.

Written notification to U.S. Environmental Protection Agency, Region 9, and the California Air Resources Board is required ten working days prior to commencement of any bridge renovation or demolition activity regardless of whether or not ACM is present. If previously undetected ACM is discovered during construction, compliance with Cal/OSHA regulations pertaining to ACM must be followed.

## **2.7 Air Quality**

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its state counterpart is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards

have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM), lead (Pb), and sulfur dioxide (SO<sub>2</sub>).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels – first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide (CO), nitrogen Dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), and particulate matter (PM). California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the appropriate regional planning organization and federal agencies make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the project in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “non-attainment” or “maintenance” for carbon monoxide (CO) and/or particulate matter. A region is a “non-attainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA and CEQA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the CO standard to be violated, and in “non-attainment” areas the project must not cause any increase in the number and severity of violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

### **2.7.1 Impacts**

The proposed project is exempt from all air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, Subsection “Safety, widening narrow pavements or reconstructing bridges (no additional lanes).”

The project may result in the generation of short-term construction related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as PM10, would be the primary short-term construction impact. Fugitive dust may be generated during excavation and grading, hauling, and demolition activities. Both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature.

### **2.7.2 Avoidance, Minimization, and/or Mitigation Measures**

The contractor is required to comply with Caltrans’ Standard Specifications, which include Section 7-1.01F “Air Pollution Control” and Section 10 “Dust Control.” In addition, the U.S. Environmental Protection Agency’s National Emissions Standards for Hazardous Air Pollutants (NESHAP) and the California Air Resources Control Board (CARB) rules require the contractor to notify the CARB in writing prior to the demolition or renovation of a bridge.

## **2.8 Fish and Wildlife**

Wildlife surveys within Spanish Creek indicate the presence of various fish species including rainbow and brown trout, Sacramento sucker, and Sacramento pike minnow. Crayfish, bullfrogs and freshwater mussels were also noted. The creek corridor also provides nesting and foraging habitat for a variety of birds and terrestrial animals. No listed sensitive, threatened, or endangered species were identified within the project limits.

### **2.8.1 Impacts**

With the implementation of any of the build alternatives, temporary stream encroachments would include pile driving, water diversions, and placement of temporary structures to facilitate bridge construction. Temporary diversions and placement of fill would be necessary in the vicinity of the bridge to create a temporary work pad. Riparian vegetation would be removed from the stream bank at this location. Construction of the temporary trestle downstream would require pile driving to install the vertical supports for the trestle deck.

### **2.8.2 Avoidance, Minimization, and/or Mitigation Measures**

Any stream diversion, dewatering, or siphoning operation would be performed in accordance with all regulatory permit conditions and applicable resource agency guidelines. During work within the creek channel, aquatic passage and stream continuity would be maintained at all times.

The removal of trees and riparian vegetation would be restricted to the period of September 15 through March 30 to avoid impacts to nesting migratory birds. If vegetation removal were required outside of this period, a qualified biologist would conduct a nesting survey prior to the removal.

## **2.9 Vegetation**

The natural plant community in the project area is Sierran mixed conifer forest and montane riparian. Species observed within the project limits include Douglas fir, black oak, incense cedar, alder, deerbrush, manzanita, dogwood, western poison oak, sword fern, mountain mule ears, lupine, and California wild grape.

### **2.9.1 Impacts**

Vegetation removal would be necessary to facilitate construction of any of the build alternatives. Vegetation would be removed within the footprint of the new bridge alignment, new sections of adjoining roadway, construction access roads, and the construction staging and storage areas. The total estimated area of vegetation removal required for construction would be approximately 10.1 acres, which includes 0.7 acre of riparian vegetation.

### **2.9.2 Avoidance, Minimization, and/or Mitigation Measures**

The removal of vegetation would be limited to the minimum necessary to accomplish the work. Temporary ESA fencing would be installed at strategic locations to protect upland and riparian vegetation immediately adjacent to the work area from inadvertent impacts. This includes upland trees within staging areas and trees near access roads marked for preservation for aesthetic purposes. Where practicable, riparian vegetation that must be removed temporarily for construction purposes would be trimmed to ground level and covered with gravel to preserve the root system. The root system would provide soil stability and enable the plants to regenerate when they are uncovered following construction. Following construction, willow cuttings and alder seedlings would be replanted within the riparian zone.

Woody vegetation would be replaced on PNF lands either by Caltrans or by PNF with funding provided by Caltrans. Planting of woody vegetation would not occur

within the clear recovery zone of the highway, which is approximately 20 feet from the edge of the traveled way.

All disturbed areas would be hydro-seeded with an appropriate erosion control seed mixture upon completion of final grading. In addition, woody vegetation removed during clearing operations would be chipped, stockpiled, and applied to disturbed areas as appropriate.

## 2.10 Cumulative Effects

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effects assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

Following are recently constructed and reasonably foreseen future projects in the vicinity of the Spanish Creek Bridge and within the Feather River Highway Historic District that may affect like environmental factors.

Previous transportation projects include the rehabilitation and seismic retrofit of the Pulga, Rock Creek, Storrie, Tobin, and Howells bridges on SR 70 in Butte and Plumas Counties. These bridges are contributing elements of the Feather River Highway Historic District. The bridges are also eligible for inclusion in the National

Register of Historic Places on their own merit. None of the bridges will be adversely affected as a result of the project, which will be completed in 2006.

Proposed future transportation projects include 1) the rehabilitation and seismic retrofit or replacement of the Yellow Creek Bridge, and 2) a major project to reconstruct metal beam guardrail (MBGR) and associated earth retaining structures on SR 70 in Plumas County from post mile 0.0 to 33.0.

The Yellow Creek Bridge is seismically deficient, has scour problems at the pier foundation, and has a substandard wooden bridge rail with a lead paint finish. A project is being developed to correct these problems. Alternatives may include bridge rehabilitation and seismic retrofit, bridge replacement, or the “no build” alternative, in which case, only bridge maintenance will be performed. The Yellow Creek Bridge is a contributing element of the Feather River Highway Historic District and is eligible for inclusion in the National Register of Historic Places on its own merit. In the immediate vicinity of the Yellow Creek Bridge is the PG&E roadside rest area, the Belden Town Bridge, and the PG&E power generation facility on Yellow Creek. In addition to the bridge work, it is proposed to widen the highway in the vicinity of the bridge to improve highway operations and safety. The widening will accommodate paved shoulders and turn lanes that meet modern highway design standards.

The MBGR reconstruction project involves replacing worn and defective MBGR and maintenance or new installation of earth retaining structures on a 33 mile section of SR 70. In most cases, the MBGR will be replaced within the footprint of the existing MBGR posts. Additional work being considered to improve safety and operations on SR 70 includes paving between the existing edge of pavement and guardrail when the guardrail is within approximately four feet of the edge of pavement to improve motorist safety and reduce maintenance. In addition, it is proposed to place crumb-crete, a concrete product made with recycled tires, along the base of the MBGR to prevent vegetation growth. This is both a maintenance and fire prevention measure.

Routine highway maintenance work within the Feather River Highway Historic District is ongoing. Due to the rugged terrain and narrow canyon, periodic events such as wild fires, flooding, and landslides cause considerable damage to the highway corridor, as well as the adjacent railroad facilities and Pacific Gas and Electric Company hydro-electric generation facilities. Repairs often result in minor alterations of the environment. For example, flooding in 1997 resulted in the erosion of highway embankments along the banks of the North Fork Feather River. The highway embankments were reconstructed with grouted rock slope protection (RSP) to prevent subsequent erosion and scour problems. Grouted RSP was not present

at these locations prior to the storm event. The introduction of grout resulted in a noticeable visual alteration within the highway corridor.

The effects of the proposed project, with implementation of any of the project alternatives, are not cumulatively considerable when viewed in connection with other past, present, and future projects, and land use plans within the Feather River Highway Historic District based on the following:

- Bridge projects are assessed on a case-by-case basis. The previous major bridge rehabilitation and seismic retrofit project included measures to avoid the replacement of any of the structures.
- Proposed mitigation associated with the implementation of Alternative A or B includes construction of an interpretive trail and overlook at the Spanish Creek Bridge site, which describes the Spanish Creek Bridge, the Feather River Highway Historic District, the Maxwell Ditch segment, and the Utah Construction Road segment.
- Physical constraints within the Feather River Canyon preclude major alterations or expansion of the highway system.



## **Chapter 3** Consultation and Coordination

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Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and public meetings. This chapter addresses Caltrans' efforts to fully identify, address, and resolve project related issues through early and continuing coordination.

A Value Analysis was conducted in July 1999. Value Analysis is defined by Caltrans as " the process used to improve the quality and reduce the cost of transportation projects and other Caltrans programs ". Three of the four project alternatives developed during the Value Analysis process were carried forward for further evaluation.

The initial public scoping meeting was held on January 27, 2004, from 4:00 to 7:00 p.m. at the Quincy Public Library Meeting Hall at 445 Jackson Street in Quincy. A notice advertising the meeting was published in the Feather River Bulletin on January 7 and 21, 2004. Notification was mailed directly to those agencies and individuals that might have an interest in the project. Comment cards were distributed at the meeting to solicit input on project alternatives and potential environmental impacts. A total of four comment cards or letters were received in response to the meeting, which was attended by less than 10 people. The comments and responses from Caltrans are contained in Appendix D.

Coordination with PNF is ongoing with respect to temporary easements and highway right-of-way. Implementation of the build alternatives would require PNF to approve a series of federal actions on National Forest system lands. A Special Use Permit would be issued to the bridge contractor for use of National Forest system lands for activities such as staging equipment, building a temporary trestle over Spanish Creek, construction of temporary roads, hauling material and supplies on National Forest lands, etc. A Forest Order(s) would be issued for the temporary closure of the Spanish Campground and for the temporary closure of a section of Spanish Creek in the vicinity of the proposed bridge project. Merchantable trees removed from National Forest lands, as a result of the proposed bridge project, would be sold by PNF in a timber sale.

Caltrans has initiated consultation with the State Office of Historic Preservation regarding eligibility, effects, and mitigation relative to the Spanish Creek Bridge, the Feather River Highway Historic District, the Maxwell Ditch segment, and the Utah Construction Road segment.

Agencies and stakeholders contacted during the project planning phase include:

- U.S. Department of Agriculture, Plumas National Forest (PNF), Mount Hough Ranger District
- Union Pacific Railroad
- Plumas County Department of Public Works
- California Department of Fish and Game, Region 2
- U.S. Fish and Wildlife Service
- State Office of Historic Preservation
- Native American Heritage Commission
- Maidu Tribal Organizations and Individuals

## **Chapter 4** List of Preparers

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This EIR/EA was prepared by the California Department of Transportation, North Region Office of Environmental Management in Redding, within input from the following staff:

ELIZABETH BENNETT, Associate Environmental Planner (Archaeology).  
Contribution: Archaeological studies.

ROSE BISHOP, Landscape Associate. Contribution: Visual Impact Assessment.

TOM GRAVES, Associate Engineering Geologist. Contribution: District Hazardous Waste Coordinator.

ROXANNE HAATVEDT, Associate Environmental Planner (Generalist). Contribution: Supplemental Visual Impact Assessment.

RYAN HENRY, Contribution: Roadway Design

ANN MARIE MEDIN, Associate Environmental Planner (Archaeology). Contribution: Historic resource studies

CANDACE MILLER, Associate Environmental Planner (Natural Sciences).  
Contribution: biological studies.

GEORGE PETERSHAGEN, Associate Environmental Planner (Architectural Historian). Contribution: Historic architectural studies.

LANH PHAN, Federal Highway Administration, Project Development Engineer.  
Contribution: Oversight relative to compliance with NEPA and other federal regulations and FHWA guidelines.

CHRIS QUINEY, Associate Environmental Planner (Generalist). Contribution: Environmental coordination and document writer.

SHARON TANG, Transportation Engineering Technician. Contribution: Air Quality Analysis

ERIC WATSON, Transportation Engineer. Contribution: Bridge design

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## **Chapter 5**      References

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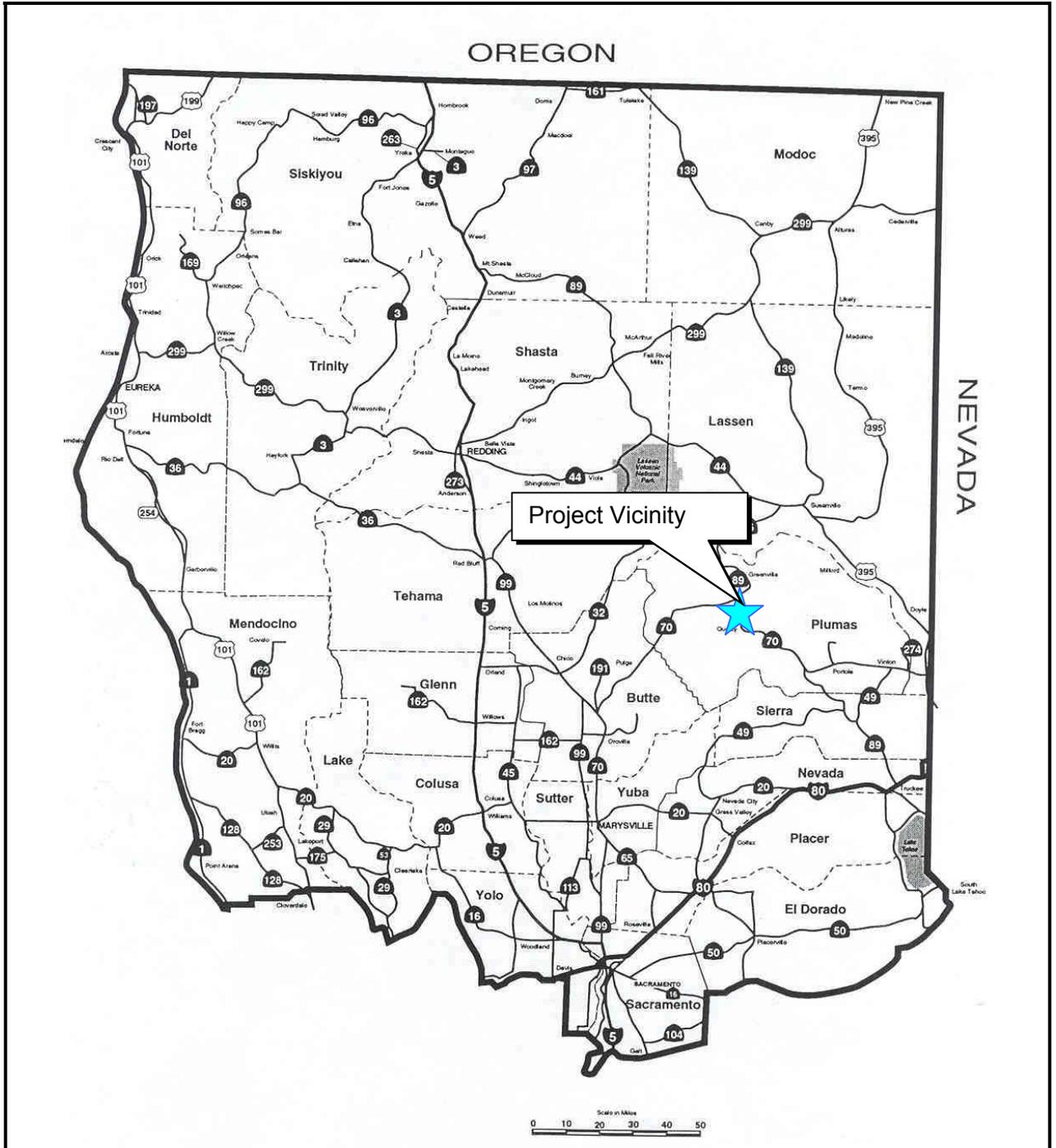
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([http://www.nccn.net/~nsaqmd/about\\_nsaqmd.htm](http://www.nccn.net/~nsaqmd/about_nsaqmd.htm)).

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Campground. February 23, 1987.

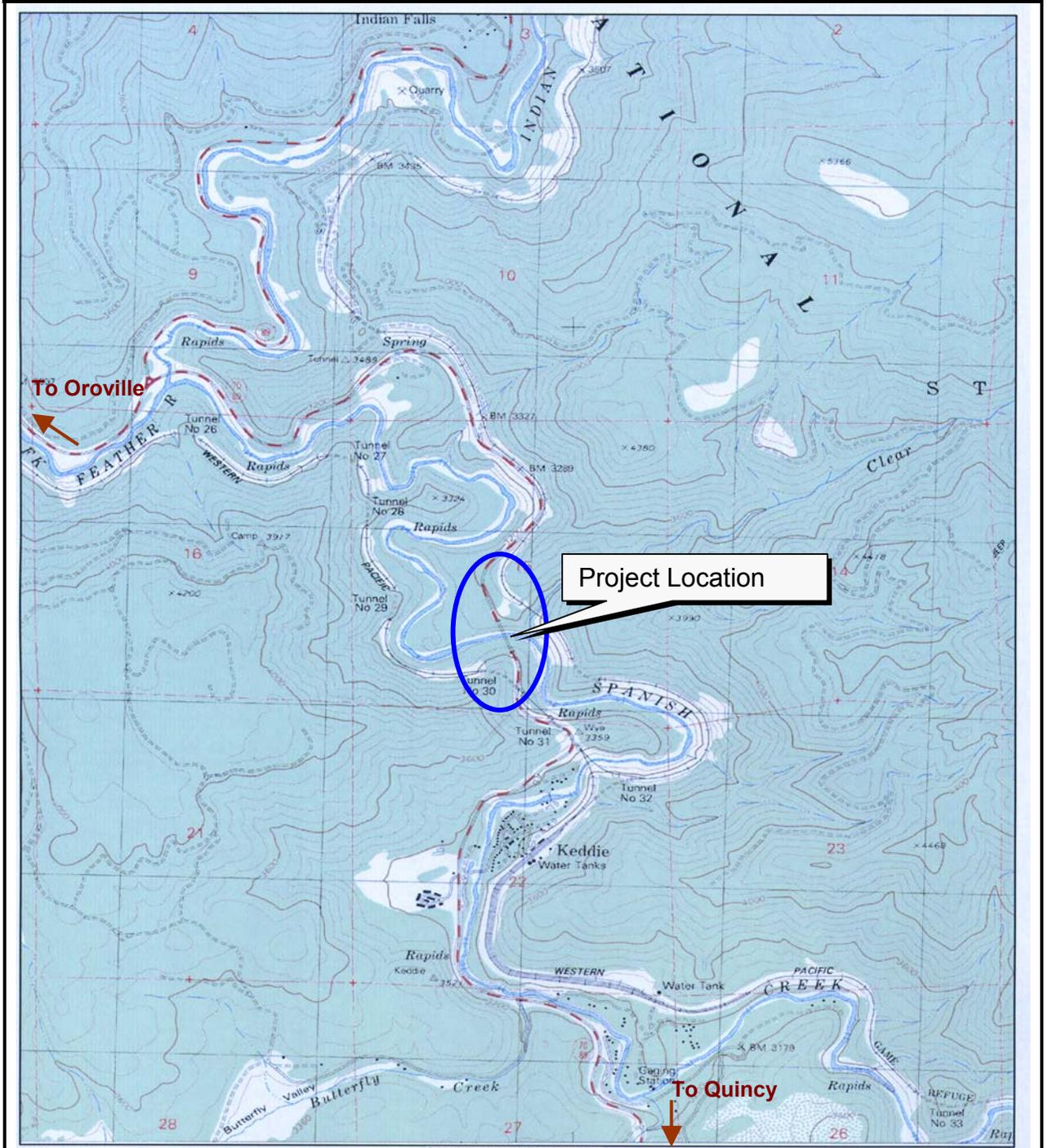




**Exhibit 1 Project Vicinity Map**

	State of California Department of Transportation		Spanish Creek Bridge Replacement Project in Plumas County on State Route 70 near Keddie
	PLU 70-PM35.1/35.5 02-373100		





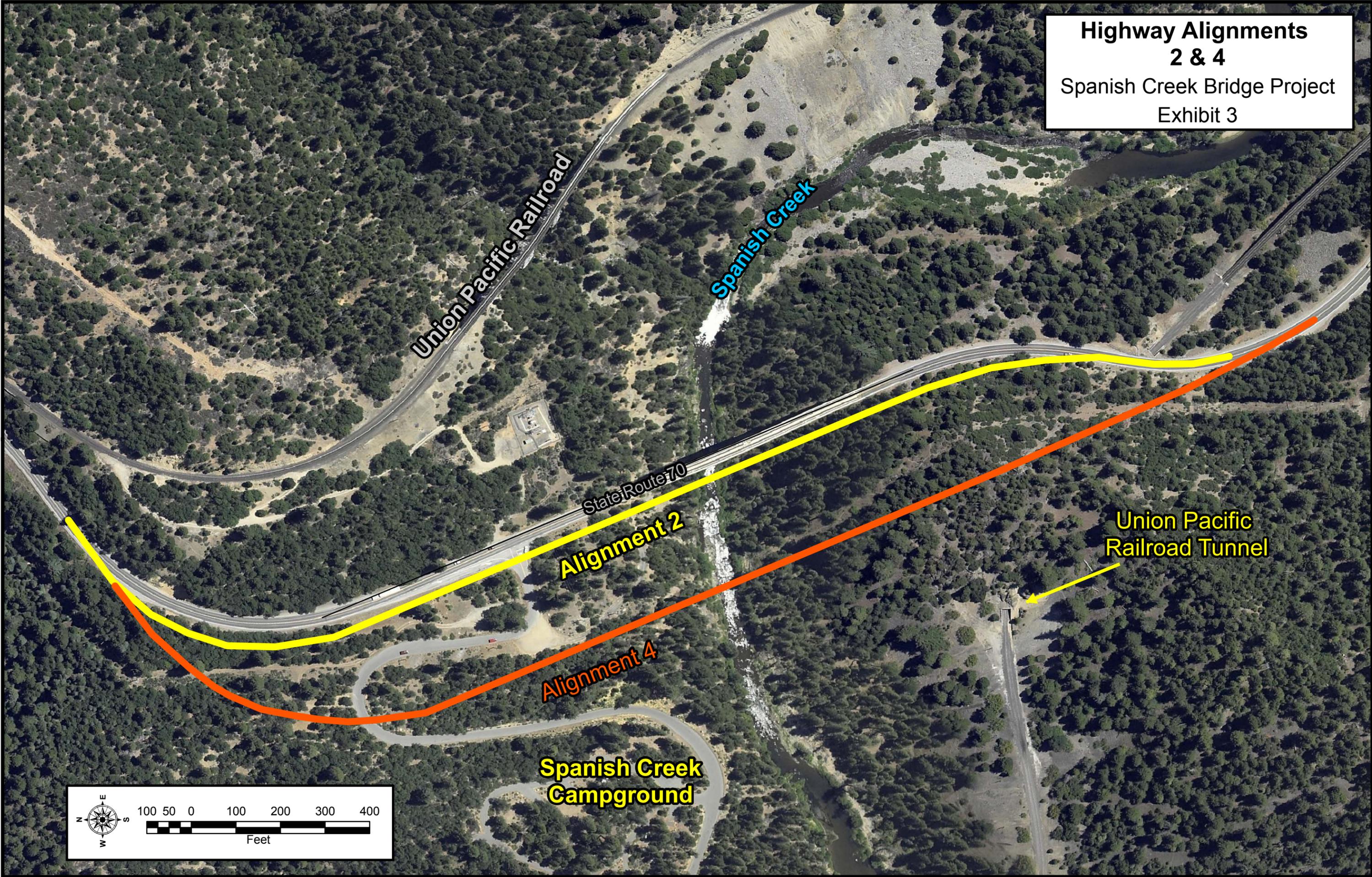
Copyright (C) 1997, Maptech, Inc.

**Exhibit 2 Project Location Map**

	State of California Department of Transportation	Base map: Crescent Mills Quad, Township 25N, Range 9E, Section 15
	PLU-70-PM35.1/35.5 02-373100	



**Highway Alignments  
2 & 4**  
Spanish Creek Bridge Project  
Exhibit 3



**Union Pacific Railroad**

**Spanish Creek**

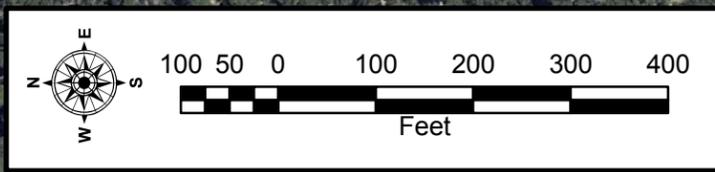
**State Route 70**

**Alignment 2**

**Alignment 4**

**Union Pacific  
Railroad Tunnel**

**Spanish Creek  
Campground**





## Exhibit 4 Bridge Types



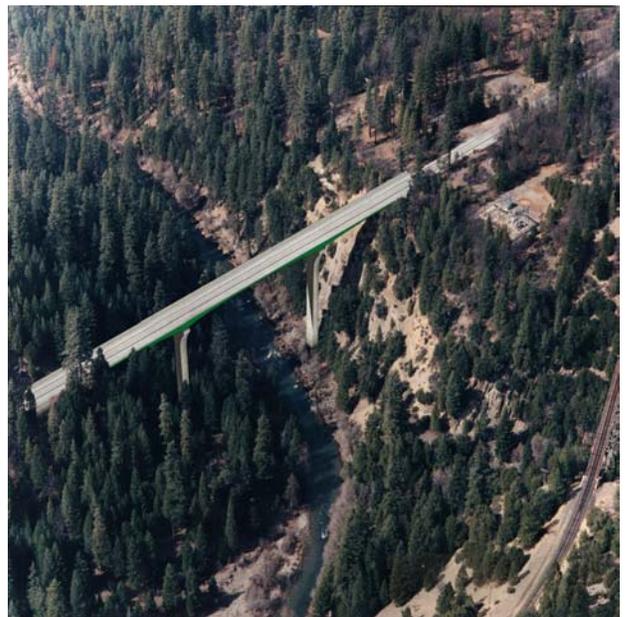
**Open Spandrel Concrete Arch Box Girder**



**Open Spandrel Concrete Arch slab**



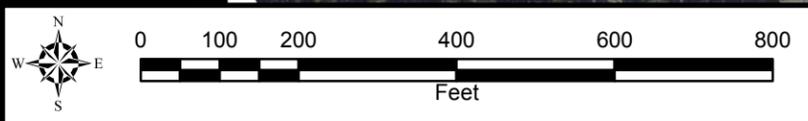
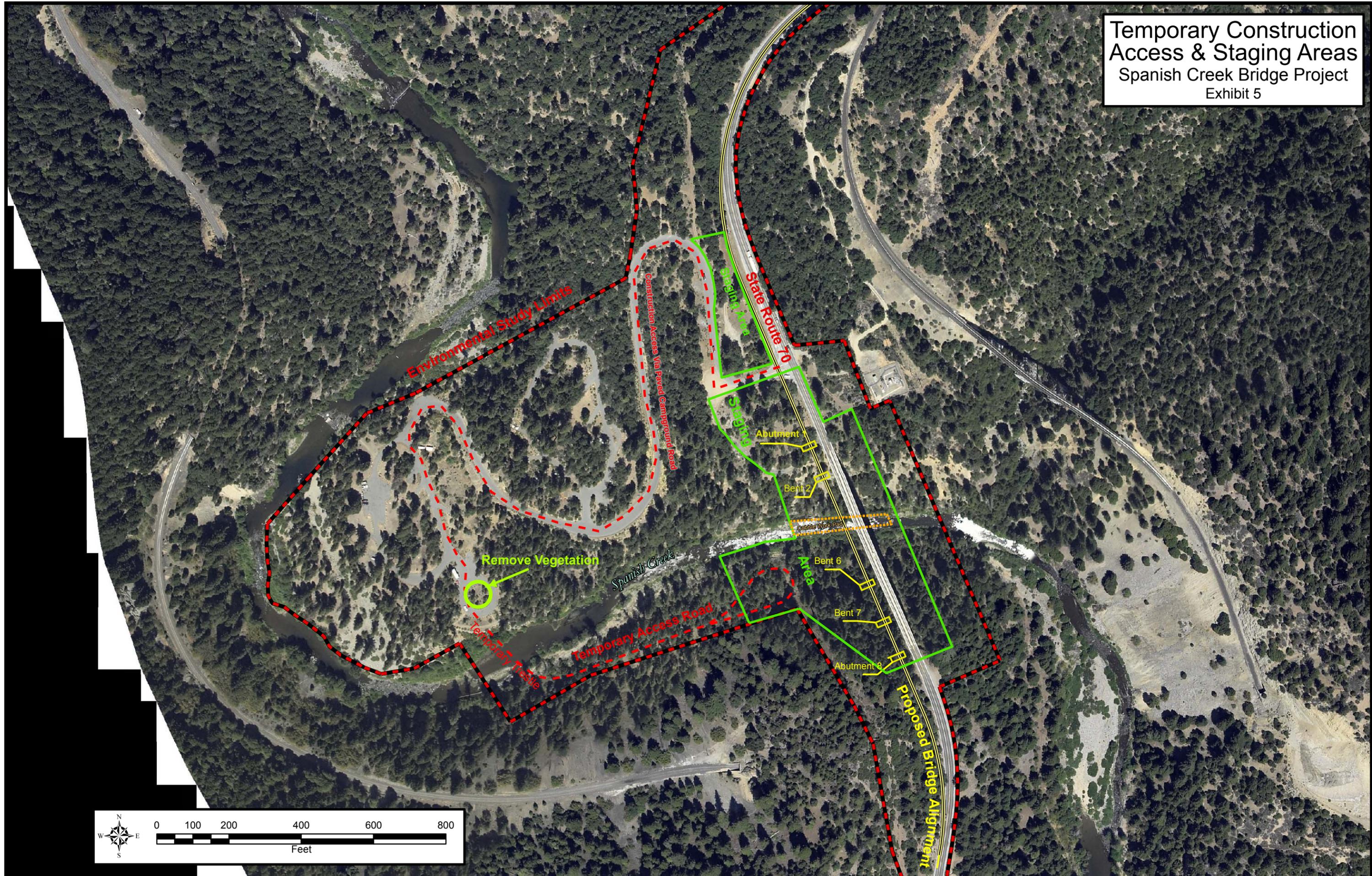
**Concrete Box Girder**



**Steel Plate Girder**



Temporary Construction  
Access & Staging Areas  
Spanish Creek Bridge Project  
Exhibit 5





# **Appendix A** California Environmental Quality Act Evaluation

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## **1.1 Determining significance under CEQA**

The proposed project is a joint project by Caltrans and the FHWA and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. Caltrans is the lead agency under CEQA and the FHWA is lead agency under NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or some lower level of documentation will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to “significantly affect the quality of the human environment.” The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## **1.2 Discussion of Significant Impacts**

### **1.2.1 Significant Environmental Effects of the Proposed Project**

Alternative B entails removal of the Spanish Creek Bridge, an historic property, which constitutes a mandatory finding of significance. CEQA Guidelines, Section 15065(a)(1) states that “A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project

where there is substantial evidence, in light of the whole record, that any of the following conditions may occur: The project has 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; substantially reduce the numbers or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory”.

### **1.2.1 Unavoidable Significant Environmental Effects**

Impacts to the bridge cannot be mitigated to a level of less than significant.

## **1.3 Mitigation Measures for Significant Impacts under CEQA**

Mitigation for the removal of the Spanish Creek Bridge (Alternative B) includes the following proposal:

Caltrans proposes construction of an interpretive trail and overlook within the upper limits of the Spanish Creek Campground near the bridge site. The trail and overlook would utilize a section of the old Quincy-Westwood Highway, a section of which is still discernable near the north abutment of Spanish Creek Bridge. The trail and overlook would be accessible from a parking area near the campground entrance. The overlook would provide a vantage point for views of the new bridge, the former bridge location, Spanish Creek, and sections of the Union Pacific Railroad. Interpretive information at the overlook would include photographs and information about the historic bridge, the Feather River Highway Historic District, the Maxwell Ditch, the Utah Construction Road, and Spanish Creek.

In addition, Caltrans is proposing recordation of the Spanish Creek Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.

## **1.4 CEQA Environmental Checklist**

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The CEQA impact levels include potentially significant impact, less than significant impact with mitigation, less than significant impact, and no impact. Please refer to the following for detailed CEQA discussions regarding impacts:

- Guidance: Title 14, Chapter 3, California Code of Regulations, Sections 15000 et seq. ([http://www.ceres.ca.gov/topic/env\\_law/ceqa/guidelines/](http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines/))
- Statutes: Division 13, California Public Resource Code, Sections 21000-21178.1 ([http://www.ceres.ca.gov/topic/env\\_law/ceqa/stat/](http://www.ceres.ca.gov/topic/env_law/ceqa/stat/))

CEQA requires that environmental documents determine significant or potentially significant impacts. In many cases, background studies performed in connection with the project indicate no impacts. A “no impact” reflects this determination. Any needed discussion is included in the section following the checklist.

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

**AESTHETICS** - Would the project:

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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"/> |

**AGRICULTURE RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. 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) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**AIR QUALITY** - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon 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 type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

- 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)?
- d) Expose sensitive receptors to substantial pollutant concentrations?
- e) Create objectionable odors affecting a substantial number of people?

**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 U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 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?

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

**COMMUNITY RESOURCES** - Would the project:

a) Cause disruption of orderly planned development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Be inconsistent with a Coastal Zone Management Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Affect life-styles, or neighborhood character or stability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Affect minority, low-income, elderly, disabled, transit-dependent, or other specific interest group?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Affect employment, industry, or commerce, or require the displacement of businesses or farms?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Affect property values or the local tax base?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Affect any community facilities (including medical, educational, scientific, or religious institutions, ceremonial sites or sacred shrines)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Result in alterations to waterborne, rail, or air traffic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Support large commercial or residential development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) Affect wild or scenic rivers or natural landmarks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
l) Result in substantial impacts associated with construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**CULTURAL RESOURCES** - Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

**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:   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 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 Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| iv) Landslides?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" 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 type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" 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"/> |

**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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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"/> |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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?

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?

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?

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

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?

**HYDROLOGY AND WATER QUALITY** - Would the project:

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

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 which would not support existing land uses or planned uses for which permits have been granted)?

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 erosion or siltation on- or off-site?

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 flooding on- or off-site?

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**LAND USE AND PLANNING** - Would the project:

a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, 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"/>
b) 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"/>

**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"/>

**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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	-------------------------------------

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

or noise ordinance, or applicable standards of other agencies?

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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 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 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"/> |

**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 housing, 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"/> |

**PUBLIC SERVICES** -

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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"/>

**RECREATION -**

a) Would the project 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) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**TRANSPORTATION/TRAFFIC -** Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

**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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**MANDATORY FINDINGS OF SIGNIFICANCE -**

- |  |                                     |                          |                                     |                          |
|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Does the project have the potential to 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input checked="" type="checkbox"/> | <input 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"/> |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?



## Appendix B Summary of Avoidance, Minimization, and/or Mitigation Measures

Environmental Factor	Potential Impact	Avoidance/Minimization Measure	Mitigation Measure
Cultural Resources	Adverse effect upon Spanish Creek Brg., Feather River Highway Historic District, presumed adverse effect upon Utah Construction Road and Maxwell Ditch	To the extent possible, minimize the shift in highway alignment	HAER recordation of bridge and construction of Interpretive overlook describing historic resources affected by project
Land Use	Temporary impacts to Spanish Creek Campground	To the extent practicable, confine equipment and vehicles to paved areas and minimize vegetation removal; Restore impacted areas of campground	n/a
Utilities	Potential relocation of utility poles	Any required utility relocation would be performed prior to bridge construction	n/a
Visual/Aesthetics	Tree removal within Spanish Creek Campground	Utilize campground access road and limit tree removal to extent necessary to complete project; Install ESA fencing to delineate areas of preserved vegetation; replace trees and woody vegetation	n/a

Water Quality & Storm water Runoff	Turbidity and solids due to construction impacts	See mitigation measures	Implement appropriate temporary and permanent storm water best management practices
Hazardous Waste	Lead paint on existing bridge	Include standard specifications in plans for waste management and disposal	n/a
Air Quality	Airborne particulates from construction and demolition activities	Notify County Air Resources Board prior to any bridge rehabilitation or demolition work	n/a
Fish & Wildlife	Stream diversions and pile driving in creek	Maintain stream continuity, use clean materials, and replace riparian vegetation	n/a
Vegetation	Approximately 10.1 acres of vegetation removal	Limit vegetation removal to minimum necessary for construction; Install temporary ESA fencing to protect vegetation adjacent to construction areas; trim and cover riparian where practicable to allow regeneration following construction; Apply erosion control seeding and replace upland and riparian woody vegetation where appropriate	n/a

# Appendix C Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

**DEPARTMENT OF TRANSPORTATION**  
OFFICE OF THE DIRECTOR  
1120 N STREET  
P. O. BOX 942873  
SACRAMENTO, CA 94273-0001  
PHONE (916) 654-5266  
FAX (916) 654-6608  
TTY (916) 653-4086



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Be energy efficient!*

January 14, 2005

## TITLE VI POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Will Kempton".

WILL KEMPTON  
Director

*"Caltrans improves mobility across California"*



## **Appendix D** Scoping Comments

---



P U B L I C

C O M M E N T

F O R M

PLEASE USE THE FOLLOWING SECTION FOR YOUR COMMENTS

SUGGESTIONS AND CONCERNS

COMMENTS, SUGGESTIONS AND CONCERNS

I do not like Alternative A because spending money to retrofit a bridge for foot travel is prohibitive.

I like Alt B or C depending on costs. The cost may be the same as for a new bridge (Alt B) would be best

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY) Names and addresses are not confidential in the event there is a public records request for the information.

Name, Address, Organization, City, State, ZIP





PUBLIC COMMENT FORM

PLEASE USE THE FOLLOWING SECTION FOR YOUR COMMENTS, SUGGESTIONS AND CONCERNS

COMMENTS, SUGGESTIONS AND CONCERNS

- ① Make new bridge alignment far enough from old bridge so people can see the old bridge (alignment) &
  - ② Provide better bicycle and pedestrian access to the old bridge
  - ③ Go with a concrete arch type bridge or some other design that aesthetically pleasing
  - ④ Use railing that do not obscure the view from bridge the new bridge
- Please send photo simulator's to mail

THANK YOU

OPTIONAL INFORMATION (PLEASE PRINT CLEARLY) Names and addresses are not confidential in the event there is a public records request for the information.

Name, Address, City, State, Zip, Organization fields with handwritten entries: City: Buena, State: CA, Zip: 92721



STATE OF CALIFORNIA — BUSINESS, TRANSPORTATION AND HOUSING — ARNOLD SCHWARZENEGGER, Governor

**DEPARTMENT OF TRANSPORTATION**

P.O. Box 496073  
Redding, CA 96049-6073  
TTY Telephone (530)225-2019  
FAX (530)225-3019  
TELEPHONE (530) 225-3174



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January 29, 2004

Quincy, CA 95971

Dear Mr.

Thank you for attending the public information meeting for the proposed Spanish Creek Bridge project and for taking the time to provide written comments. Per your request, enclosed are photo-simulations depicting different types of bridges that will be considered for project alternatives that include a new bridge. A photograph of the existing bridge is included for comparison.

If you have any questions or comments, please feel free to contact me at the address or telephone number referenced above.

Sincerely,

Handwritten signature of Chris Quiney in cursive.

CHRIS QUINEY  
Environmental Planner  
North Region Office of Environmental Management -  
Redding

Attachments

*"Caltrans improves mobility across California"*



FEB 17 2004



## Feather River Rail Society

P O Box 608 • Portola, CA 96122 • museum 530.832.4131 • office 530.832.1657 • fax 530.832.1854 • www.wplives.org

John Walker  
Western Pacific Railroad  
Historical Society  
Portola Railroad Museum  
Feather River Rail Society

February 12, 2004

Mr. Jonathon Oldham  
Chief, Environmental Management Office  
P.O. Box 496073  
Redding, CA 96049-6073

Dear Mr. Oldham,

Unfortunately, I was unable to attend the January 27, 2004 public information meeting concerning the Spanish Creek Bridge on Highway 70 in Plumas County. I have some knowledge of the proposed replacement of the existing bridge and would like to respectfully offer some concerns and ideas I have in regards to the project.

One of the great assets of Plumas County is the beautiful drive up Highway 70 through the fabulous Feather River Canyon. As you are aware, the canyon is largely unchanged since the highway was built in the 1930s. Both the railroad and the highway offer the viewer a fascinating view of unique structural engineering and scenic delights.

Unfortunately, the narrow confines of the canyon do not allow for many places to pull off the road and rest or gain access to the river. In addition, there is a large following of railroad enthusiasts who like to take pictures of trains along this route. Again, there are few opportunities for these photographers, or scenic photographers, fisherman, birdwatchers, etc. to pull off the road and park. Just like the Spanish Creek Bridge, there are narrow shoulders and confined spaces that pose a severe threat to pedestrians, sightseers, bicyclist and photographers.

I have been told that a replacement bridge over Spanish Creek would likely be constructed south of the existing structure, would be higher and climb over the narrow ridges near the railroad "wye" bridge (known as "The Keddie Wye") and come back down to grade near the old gas station across from the entrance to the Keddie Resort.

Having traveled this route several hundred times over the years, I think this would be a wonderful idea. We would have a better bridge, a straighter route that would eliminate all of those sharp curves to the east of the existing bridge and eliminate the possibility of pedestrian accidents in the vicinity of the Keddie Wye in the area the local people call "Vicki's Corner".

I would also like to propose for your consideration, that the existing bridge and road be left in place and a rest area be established near the curve in the road where people overlook the Keddie Wye east of the existing bridge. I would suggest that this area be accessed via the old road coming west from the Keddie Resort and terminate at the rest area. I would then suggest that the rest of the old road be converted to a walking trail across the existing bridge and linking up with the U.S. Forest Service campground west of the existing bridge.

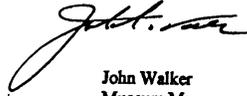
I do not have the expertise to analyze the soil composition of the area or the structural requirements of the new bridge and roadway. Thus, I have no idea of the engineering difficulties you may be facing. I just want to suggest that if it were possible to leave the old road and existing bridge in place for pedestrian access, this would become a popular rest and recreation spot. The scenic overlook near the Keddie Wye is a favorite location for rail photographers. Rail enthusiasts from all over the world visit this location annually. Our railroad museum draws some 10,000 visitors a year and many ask me for directions to the wye. Over the years there has been many close calls for photographers walking over to the north side of the road to overlook the wye. The area where these people used to park has been closed off with temporary concrete barriers now for several years in an attempt to stop pedestrians walking crossing the road on this blind curve.

By keeping the old road to this location, establishing a rest stop with restrooms, picnic tables, trash receptacles and informational signs, this location would become an interesting and safe, scenic overlook and recreation area for Plumas County travelers. Connecting this site via a walking trail across the existing bridge to the west would also enhance the existing campground.

I have been given permission by our FRRS President Mr. Rod McClure to offer the assistance of the Feather River Rail Society through the Portola Railroad Museum and the Western Pacific Railroad Historical Society in providing informational signs, possibly a historical marker (the Keddie Wye was the location of the driving of the final spike of the Western Pacific Railroad in 1909) and possibly other assistance in helping to create a safe area for rail photographers and an informational stop for other Plumas County travelers.

I thank you for your consideration of these suggestions. I think we have an opportunity to not only replace the existing bridge, but also enhance the Highway 70 route with a nice recreation area as well. I would like to be involved in any additional pre-planning, exploration of ideas and suggestions for this project. You can reach me at the address above or please feel free to contact me personally at 530-713-4935.

Sincerely,



John Walker  
Museum Manager  
Portola Railroad Museum

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

P.O. Box 496073  
Redding, CA 96049-6073  
TTY Telephone (530)225-2019  
FAX (530)225-3019  
TELEPHONE (530) 225-3308



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March 3, 2004

MR. JOHN WALKER  
Feather River Rail Society  
P.O. Box 608  
Portola, CA 96122

03-Environmental Management  
PLU-70-PM 35.0/35.6  
03 172 02 373100  
Spanish Creek Bridge Project

Dear Mr. Walker:

Thank you for your letter in response to our public notice regarding planning for the rehabilitation or replacement of the Spanish Creek Bridge (Brg. No. 9-15) on State Route 70 near Keddie. We welcome your participation during this early stage in the project development process. You have provided many important issues for consideration, including a concern for pedestrian safety and the benefits of providing a railroad viewing area at the Keddie Wye and a pedestrian connection to the Spanish Creek Campground.

Your letter indicates that you have been told that a replacement bridge over Spanish Creek would most likely be constructed south of the existing structure and that the highway would climb over the ridges near the Keddie Wye and meet the existing highway grade again near the entrance to the Keddie Resort. I have enclosed a display for your review depicting the project site and alternatives currently being evaluated. The purpose of the project is to provide a highway crossing at Spanish Creek that meets modern highway standards and accommodates regional transportation needs. Within the scope of the proposed project, there is currently not a need to extend the work much farther than the Spanish Creek Tunnel Overhead as indicated on the display. The need for the project is based upon the following deficiencies: The Spanish Creek Bridge exhibits signs of structural fatigue, does not meet modern seismic standards, does not have standard shoulder width, and cannot accommodate some large permit loads due to lane width and structural limitations for weight loading. Caltrans Office of Structure Design is currently analyzing the bridge to determine if it would be feasible to rehabilitate the bridge seismically and structurally, and modify the bridge to increase shoulder width and load capacity. This analysis is expected to be completed by September 2004. We anticipate distribution of a draft environmental document during the summer of 2005. The draft environmental document will present an alternatives analysis and the studies and coordination that were undertaken to arrive at the proposed solution. The input you have provided will be valuable to us during the alternatives analysis and when determining the scope of the project.

Mr. John Walker  
March 3, 2004  
Page 2

We appreciate the Feather River Rail Society's offer of assistance on this important project and we look forward to working with you. Please feel free to write or call me at (530) 225-3308, or the project Environmental Coordinator, Chris Quiney, at (530) 225-3174.

Sincerely,



JONATHAN OLDHAM, Chief  
Office of Environmental Management  
North Region - Redding

*"Caltrans improves mobility across California"*



**California Regional Water Quality Control Board**  
**Central Valley Region**



**Terry Tamminen**  
*Secretary for  
Environmental  
Protection*

**Redding Office**  
415 Knollcrest Drive, Suite 100, Redding, California 96002  
Phone (530) 224-4845 • FAX (530) 224-4857  
<http://www.swrcb.ca.gov/rwqcb5>

**Arnold Schwarzenegger**  
*Governor*

11 February 2004

California Department of Transportation  
C/o Jonathan Oldham, Chief  
P.O. Box 496073  
Redding, CA 96040-6073

**NOTICE OF PUBLIC INFORMATION MEETING, SPANISH CREEK BRIDGE  
REHAB/REPLACE, 02-PLU-70-PM-35.1/35.5, KEDDIE, PLUMAS COUNTY**

We have reviewed the Notice of Public Information Meeting for the Spanish Creek Bridge Rehabilitation/Replacement Project located near the town of Keddie. The proposed project may include: removal of an eligible historic resource, effects upon an adjacent U.S. Forest Service campground, temporary traffic detours, temporary increases in noise and dust, acquisition of new highway right-of-way, temporary encroachment within the Spanish Creek floodplain, removal of vegetation and creation of temporary access roads for construction. We have the following comments regarding this project.

Caltrans Storm Water Permit

In order to protect water quality from the potential development activities, appropriate storm water pollutant controls will be required during construction. Construction activities for this project will be covered under the Caltrans Storm Water Permit (Order No. 99-00-DWQ), adopted in July 1999. The Caltrans Storm Water Permit covers all Caltrans construction activities. Caltrans is required to notify the Regional Board that a project is to be covered under the permit at least 30-days prior to the onset of construction. In addition, the Regional Board may require Caltrans to submit a Storm Water Pollution Prevention Plan to address potential water quality impacts.

Army Corps of Engineers and State Water Quality Certification

The proposed project will also require a 404 permit from the US Army Corps of Engineers and a 401 water quality certification from the State Water Resources Control Board. The Federal 404 permit is required for activities involving a discharge (such as fill or dredged material) to waters of the United States. "Waters" include wetlands, riparian zones, streambeds, rivers, lakes, and oceans. Typical activities include any modifications to these waters, such as stream crossings, stream bank modifications, filling of wetlands, etc. These projects also require a water quality certification (per Section 401 of the Clean Water Act) verifying that the project does not violate State water quality standards. The 404 permit and water quality certification must be obtained prior to disturbance. The Army Corps of Engineers contact for Plumas County is Matt Kelley (530) 223-9534. The water quality certification application can be obtained from the Regional Water Quality Control Board office in Redding.

*California Environmental Protection Agency*



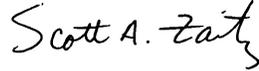
Recycled Paper

California Department of Transportation

- 2 -

11 February 2004

If you have any questions regarding these comments, please contact me at (530) 224-4784.



Scott A. Zaitz, R.E.H.S.  
Environmental Scientist  
South Regulatory Unit

SAZ:sae

cc: Mr. Matt Kelley, U.S. Army Corps of Engineers, Regulatory Unit, Redding  
Department of Fish and Game, Region 2, Rancho Cordova  
Plumas County Environmental Health, Quincy  
Plumas County Public Works, Quincy

## **Appendix E** Section 4(f) Evaluation

---

# Replacement of the Spanish Creek Bridge (Bridge No. 09-0015) on State Route 70 in Plumas County near Keddie

*Submitted Pursuant to 42 U.S.C. 42(2)(c) and 49 U.S.C. 303*

## **INTRODUCTION**

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 U.S.C 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) specifies that the Secretary of Transportation may approve a transportation program or project requiring use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

1. there is no prudent and feasible alternative to using that land; and
2. the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs which use lands protected by Section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

## **PROJECT DESCRIPTION**

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration (FHWA), proposes to replace the Spanish Creek Bridge (Bridge No. 09-0015) on State Route (SR) 70 in Plumas County, post mile 35.3, near the community of Keddie. SR 70 is a two-lane conventional highway that connects SR 99 near Sacramento in Sutter County and U.S. 395 in southeastern Lassen County. The new bridge would be constructed parallel to the existing bridge and the roadway would be realigned to conform to the new bridge. Two build alternatives and a no-build alternative were developed to address the purpose and need of the project. A third build alternative was considered for the project, however, it would only delay the need for eventual replacement of the bridge. Since this eliminated alternative offered avoidance of impact to some Section 4(f) resources, it is included in the discussion below. The alternatives considered are as follows:

- Alternative A entails construction of a new bridge and seismically retrofitting the existing bridge.
- Alternative B involves construction of a new bridge and removal of the existing bridge.

- Alternative C (eliminated alternative) would rehabilitate the existing bridge.
- Alternative D is the “no-build” alternative, which assumes the existing bridge would be maintained and substantial improvements would not be made.

The proposed project also includes consideration of two different alignments, Alignments 2 and 4. Alignment 2 is carried forward, however, Alignment 4 was eliminated from further consideration due to greater impacts it imposed.

A full description of the project and its alternatives, including those elements that were eliminated, are found in Chapter 1 of the environmental document.

## **PURPOSE AND NEED**

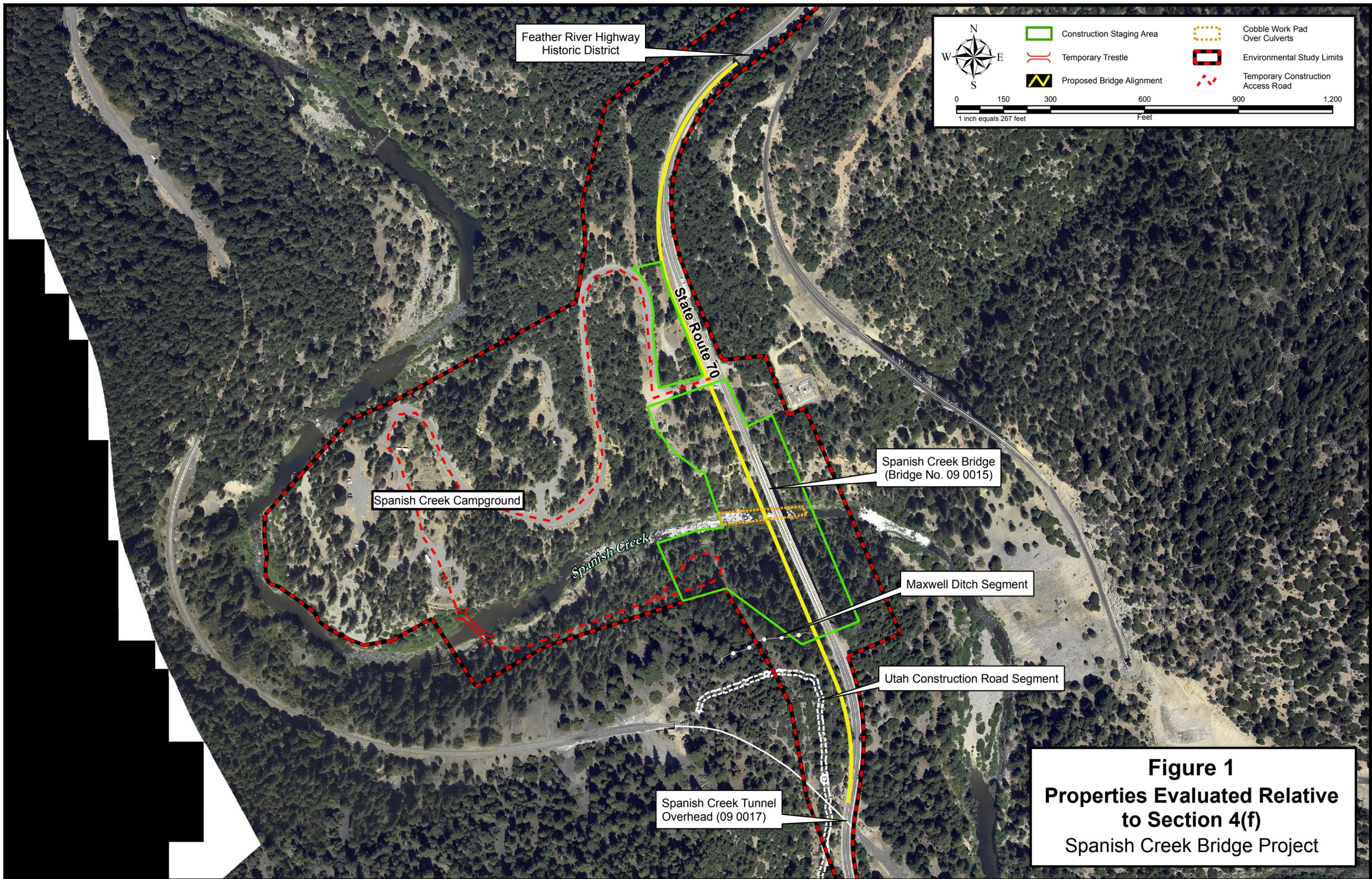
The purpose of the project is to provide a road crossing that meets modern highway design standards and accommodates interregional transportation needs. The existing Spanish Creek Bridge was constructed in 1932 and is at or near the end of its service life. The bridge exhibits signs of significant structural fatigue, does not comply with modern seismic standards, lacks standard shoulder width, and cannot accommodate some large permit loads due to lane width and structural limitations for weight loading.

## **LIST AND DESCRIPTION OF SECTION 4(f) PROPERTIES**

The locations of properties evaluated relative to Section 4(f) are shown in Figure 1.

**The Spanish Creek Bridge:** The Spanish Creek Bridge (Bridge No. 09-0015) [Figure 2] is a riveted steel Warren deck truss carried on tall K-truss tower piers. It is approximately 600 feet in length, 23 feet wide between curbs, and approximately 140 feet above Spanish Creek. The bridge was designed by the Bridge Department of the California Division of Highways and was constructed in 1932. It is eligible for inclusion in the National Register of Historic Places and is a contributing element of the Feather River Highway Historic District, which is also eligible. The bridge was determined individually eligible for the National Register on January 9, 1986, under the Historic Truss Bridges in California Thematic Determination of Eligibility under Criterion A. This Spanish Creek Bridge is significant primarily as a historical transportation link, serving one of the major crossings on SR 70.





Feather River Highway  
Historic District

	Construction Staging Area	Cobble Work Pad Over Culverts
	Temporary Trestle	Environmental Study Limits
Proposed Bridge Alignment	Temporary Construction Access Road	

0 150 300 600 900 1,200  
1 inch equals 267 feet Feet

Spanish Creek Campground

Spanish Creek

State Route 70

Spanish Creek Bridge  
(Bridge No. 09 0015)

Maxwell Ditch Segment

Utah Construction Road Segment

Spanish Creek Tunnel  
Overhead (09 0017)

**Figure 1**  
**Properties Evaluated Relative**  
**to Section 4(f)**  
Spanish Creek Bridge Project





**Figure 2 - Spanish Creek Bridge (Bridge No. 09-0015)**

**Feather River Highway Historic District:** The section of SR 70 from Jarbo Gap in Butte County to Keddie in Plumas County is a historic highway district (Figure 3). The highway was constructed between March 1928 and August 1937. It was determined eligible for the National Register of Historic Places in April 1987. It is also a National Scenic Byway. Scenic and historic features include, rock masonry walls, water fountains, steel truss bridges, tunnels, various railroad features, rock formations, waterfalls, remnants of resorts, mining and timber mills, hydro-electric facilities, and the North Fork Feather River and its tributaries.



Figure 3 – Feather River Highway Historic District

**The Spanish Creek Campground:** The Spanish Creek Campground (Figure 4) is located on the west side of SR 70, adjacent to the Spanish Creek Bridge, within Plumas National Forest (PNF). It was developed to replace two PNF campgrounds damaged during a major flood in 1986. The flood destroyed 39 campsites within the Belden and Indian Jim campgrounds, which were located adjacent to SR 70 within the base floodplain of the North Fork Feather River. Due to previous flooding problems, PNF decided to abandon these sites and find a better location to re-establish a campground. According to a Finding of No Significant Impact approved by PNF on February 23, 1987, the Spanish Creek site was selected for the following reasons: “It is located out of the floodplain; it is close to Quincy (7 miles); there are no fully developed campgrounds in the area; it provides easy access to Bucks Lake and Lakes Basin Recreation Areas and the Bucks Lake Wilderness; other PNF developed campgrounds are at or near capacity; fishing access; centrally located in the County; generates recreation dollars to the local communities; provides a site for use by local organizations such as Boy Scouts, Girl Scouts, etc., access to a wildlife refuge; will replace lost campsites from the flooded campgrounds; close to power and water sources; availability of an area for an Incident Command Base, if needed; and uncrowded camping units. ”



**Figure 4 – Spanish Creek Campground**

The original proposal was to provide bathrooms with showers and flush toilets at the new campground, but these improvements have not yet been made due to funding shortfalls. The existing facility is open May through September and has 20 campsites, vault toilets, and potable water. A campground host is present and reservations are accepted. A day use area is located in the lower reach of the campground near the creek.

PNF considers the Spanish Creek Campground an important resource relative to Section 4(f) because of its desirable attributes, high use potential, and the fact that there are no other improved public camping facilities in the area. The improved campground has been in use since 2004, and therefore, there is not sufficient data regarding frequency of use.

**Maxwell Ditch Segment:** The Maxwell Ditch (CA-PLU-2794H) [Figure 5] was constructed by the Maxwell Ditch and Mine Company for hydraulic gold mining and appears to have been in operation from 1872 to 1884. Only a short segment of earthen ditch is located within the project limits. The ditch segment begins near the southbound shoulder of SR 70 and extends westerly approximately 300 feet. It is approximately 7 feet wide by 1.5 feet deep. The outer berm of the downhill slope is 3 feet wide.



**Figure 5 - Maxwell Ditch Segment**

The segment of ditch within the project limits is a mundane linear trough that is physically separated from the balance of the ditch by the highway and railroad on its eastern end and a landslide on its western end. The physical characteristics of the ditch have been affected by years of landslides and natural erosion leaving its alignment as the only indicator of what the ditch may have been like during its years of operation. The ditch segment is presumed eligible for the National Register of Historic Places because a full evaluation of the ditch is beyond the scope of the proposed project. Therefore, FHWA and Caltrans will treat the ditch segment as if it were an historic property.

**Utah Construction Road Segment:** The Utah Construction Road (Figure 6) was a wagon road used for construction of the Western Pacific Railroad. The road extends through California, Nevada, and Utah. This section of the Utah Construction Road is physically separated from whatever remains of the original road by highway and railroad construction on the eastern end and a long landslide on its western end. Natural erosion has also taken a heavy toll. This road segment has also been subject to the effects of modern machinery associated with residential construction, logging, and perhaps firefighting. As with the Maxwell Ditch segment, this resource is also presumed eligible for the National Register of Historic Places and will be treated as such for purposes of the proposed project.



**Figure 6 – Utah Construction Road Segment**

### **IMPACTS TO THE SPANISH CREEK BRIDGE (BRIDGE NO. 09-0015)**

Alternative B entails construction of a new bridge and removal of the existing bridge. The new bridge would be located approximately 40 feet westerly, from centerline to centerline, of the existing bridge.

### **AVOIDANCE ALTERNATIVES FOR THE SPANISH CREEK BRIDGE**

Alternative D (“No-Build”) would avoid use of the Spanish Creek Bridge. However, deterioration over time would have a detrimental effect upon the bridge. Moreover, this alternative does not address the existing seismic and structural deficiencies. In light of these deficiencies, a corrective action should be planned and implemented before a major structural problem arises requiring immediate action.

Both Alternatives A and B would result in the use of the Spanish Creek Bridge for purposes of Section 4(f). See Section 1.4 of the draft EIR/EA for further information on these alternatives.

Alternative C (Rehabilitate Existing Bridge) could potentially avoid use of the Spanish Creek Bridge, but this alternative was eliminated from further consideration. There would be no use of the bridge with this alternative if the work would not result in an adverse effect to the bridge under Section 106 of the National Historic Preservation Act and the State Office of Historic Preservation and Advisory Council on Historic

Preservation have been consulted and do not object. This alternative was eliminated from further consideration because it would only provide a short-term solution due to the condition of the steel. It does not address fatigue cracks and distortion in steel members. Furthermore, construction would be very difficult due to the nonstandard shoulder widths. This would result in traffic and construction delays, which in turn would result in higher construction and user delay costs. Worker safety would also diminish due to the narrow width of the structure.

This alternative also considered an option to rehabilitate the bridge and widen the deck to obtain standard eight-foot wide shoulders. However, this option was not considered practicable due to the condition of the superstructure and the major modifications necessary to support the additional deck width and weight. This work would undoubtedly affect the visual appearance of the bridge, which in turn would impact the historic district. Extensive analysis would have to be done to evaluate the existing bridge support system to determine exactly how much work would have to be done to increase the live load capacity of the bridge.

Given the cost of the analysis and actual construction, increased traffic control and construction issues, this option was not evaluated further.

#### **MEASURES TO MINIMIZE HARM TO THE SPANISH CREEK BRIDGE**

Under Alternative A (Build New Bridge and Retrofit Existing Bridge), the Spanish Creek Bridge would remain in place. Even so, by reducing the functionality of the bridge by limiting its use to pedestrian and bicycle use only, the historical integrity of the bridge would be adversely affected.

Were Alternative B to be implemented, the following measures are proposed to mitigate the loss of the Spanish Creek Bridge:

- An interpretive display, including history and photographs, will be constructed within an overlook near the bridge site within the Spanish Creek Campground. The overlook will provide viewing opportunities of the former bridge site and provide information on the Spanish Creek Bridge, Feather River Highway Historic District, Maxwell Ditch, Utah Construction Road, and the Western Pacific Railroad (now Union Pacific Railroad).
- Recordation of the Spanish Creek Bridge in accordance with Historic American Engineering Record (HAER) procedures and guidelines.

#### **COORDINATION REALTIVE TO THE SPANISH CREEK BRIDGE**

A public notice was published in the Feather River Bulletin on January 7, 2004, and January 21, 2004, to inform the public that Caltrans was initiating studies relative to the Spanish Creek Bridge project and that a public information meeting was planned for January 27, 2004, at the Quincy Public Library. In addition to the newspaper ad,

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notices were mailed directly to appropriate public agencies, interest groups, and individuals. Project information presented at the meeting included the project purpose and need (problem) statement, alternative alignments for the bridge replacement, potential project related impacts, project schedule, and an outline of the project development process. The public was encouraged to attend the public information meeting and provide input regarding the proposed project and its potential effects on the environment. Less than 10 people attended the meeting and four written comments were received, none of which raised significant issues or opposition to the project.

A Notice of Preparation (NOP) was advertised in accordance with the California Environmental Quality Act. The NOP was sent to public agencies with discretionary approval authority and/or jurisdiction over resources held in trust for the public, and other appropriate public agencies, organizations, and individuals with an interest in the proposed project. The purpose of the NOP is to obtain early comments on the proposed project, project alternatives, and potential environmental effects of the project. The only comments received were from the California Regional Water Quality Control Board and the California Department of Forestry and Fire Protection regarding compliance with regulations pertaining to water quality and fire control respectively.

FHWA has determined that the undertaking will have an adverse effect on the Spanish Creek Bridge, determined eligible for listing in the National Register as a California historic truss bridge and as a contributive element of the National Register-eligible Feather River Highway Historic District, and, with the cooperation and assistance of Caltrans, is consulting with the SHPO regarding the resolution of adverse effects in accordance with 36 CFR 800 (Section 106).

### **IMPACTS TO THE FEATHER RIVER HIGHWAY HISTORIC DISTRICT**

Alternatives A and B propose construction of a new bridge immediately west of the existing bridge. This will allow the highway to remain open during construction, as no other practicable detour routes are available. The new bridge alignment would require a minor realignment of SR 70 at each end of the new bridge. Except for the new bridge, the roadway, and associated cuts and embankments, no additional structural features associated with the historic district, i.e., rock walls, fountains, etc., will be affected by the realignment.

### **AVOIDANCE ALTERNATIVES FOR THE FEATHER RIVER HIGHWAY HISTORIC DISTRICT**

Alternative D (No-Build) is the only alternative that would avoid use of the Feather River Highway Historic District. However, this alternative would not address the project purpose and need.

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**MEASURES TO MINIMIZE HARM TO THE FEATHER RIVER HIGHWAY HISTORIC DISTRICT**

Realignment of the roadway would be limited to the minimum extent necessary to conform to the proposed new bridge. Disturbance would be limited to cut and fill slopes and a minor amount of vegetation. Also, as discussed in the Spanish Creek Bridge Section of this evaluation, an interpretive overlook is proposed near the campground entrance to provide information on the Spanish Creek Bridge, Feather River Highway Historic District, Maxwell Ditch, Utah Construction Road, and the Western Pacific Railroad (now Union Pacific Railroad).

**COORDINATION REALTIVE TO THE FEATHER RIVER HIGHWAY HISTORIC DISTRICT**

FHWA has determined that the undertaking would have an adverse effect on the Feather River Highway Historic District due to the potential removal of the Spanish Creek Bridge, a contributive element of the historic district, and the realignment that would result from construction of a new bridge. FHWA, with the cooperation and assistance of Caltrans, is consulting with the SHPO regarding the resolution of adverse effects in accordance with 36 CFR 800 (Section 106).

**IMPACTS TO THE SPANISH CREEK CAMPGROUND**

The entrance to the Spanish Creek Campground is located on SR 70 immediately north of the Spanish Creek Bridge. The bridge spans the Spanish Creek canyon approximately 140 feet above the active creek channel. Access within the creek channel will be necessary for bridge construction and demolition. Due to the steep terrain in the vicinity of the existing and proposed bridges, construction of either build alternative via standard construction methods would not be practicable. The Spanish Creek Campground entrance, located near the northwest quadrant of the bridge, provides a paved access road into the campground. The road leads into the campground and a cul de-sac at the northern bank of Spanish Creek approximately 950 feet downstream of the bridge. The topography on the opposite (south) side of the creek beyond the floodplain is level and wide enough to provide access northerly to the bridge site. The most cost effective and least environmentally damaging method of access would be to utilize the campground road and construct a creek crossing at the end of the campground road. The access road would be utilized for the transport of equipment, materials, and workers to and from the construction site. For maximum construction efficiency and to provide public and worker safety, the campground should be closed to the public for the duration of major construction operations. Construction staging areas would be developed below the existing and proposed bridges on each side of the creek. Another at-grade stream crossing would likely be constructed at the bridge site. Typical equipment and materials include large cranes, which would be left in place near the bridge(s), cement trucks, drill rigs, flatbed trucks with rebar, graders, bulldozers, loaders, and dump trucks.

The access road would be used on a daily basis. For a complete project description, see Section 1.3 in the Draft EIR/EA.

Such a long-term impact to the campground (approximately three years) would be considered a “use” for purpose of Section 4(f).

### **AVOIDANCE ALTERNATIVES FOR THE SPANISH CREEK CAMPGROUND**

Alternative D (“No-Build”) would avoid use of the Spanish Creek Campground. However, this alternative does not address the project purpose and need.

For any of the “build” alternatives, construction access is possible from the existing highway, however this would require specialized equipment and construction methods which would limit the pool of contractors, result in increased costs, cause greater environmental damage, and increase the potential for safety hazards. Construction from the existing highway would require the use of some of the largest cranes available due to the span and depth of the canyon. If access roads were constructed from the highway, a long road with switchbacks and extensive earth retaining structures would be necessary. This would require substantial tree removal and earth disturbance, which would result in erosion potential, water quality impacts, visual impacts, and habitat destruction. The additional work to create access and the requirement of non-standard construction equipment and methods of work would increase the cost of construction and the potential for accidents.

### **MEASURES TO MINIMIZE HARM TO THE SPANISH CREEK CAMPGROUND**

- The campground would be closed during major bridge construction operations, which are expected to take three years to complete. These operations would require full-time use of the campground access road to transport heavy equipment and large volumes of materials to the base of the new and existing bridges. When major construction operations are complete and full-time use of the campground access road is no longer needed, the contractor would restore the campground road and campsites to a condition as good or better than existed prior to the beginning of construction.
- Construction equipment and all vehicles would be confined to the paved roadway with the exception of staging and storage areas delineated on the project plan sheets.
- Following construction, all disturbed areas would be stabilized with erosion control seeding and restored to PNF’s specifications.
- An informational sign would be installed at the campground entrance to inform the public about the project.

- An interpretive overlook with trail and parking is proposed for construction near the entrance to the Spanish Creek Campground. The overlook would offer a view of Spanish Creek, the Spanish Creek Bridge site, and the proposed bridge. Display panels would provide information on the Spanish Creek Bridge, the Feather River Highway Historic District, Maxwell Ditch, Utah Construction Road, and the Western Pacific Railroad (now Union Pacific Railroad).

### **COORDINATION REALTIVE TO THE SPANISH CREEK CAMPGROUND**

A meeting was held on March 22, 2005 at the PNF, Mount Hough Ranger District in Quincy to discuss potential impacts to the Spanish Creek Campground. In attendance were appropriate representatives of PNF, the FHWA, and Caltrans. Topics discussed include project alternatives, anticipated construction access and staging requirements, potential effects to the Spanish Creek Campground, and measures to minimize harm to the campground. PNF confirmed that the campground was a significant Section 4(f) resource due to the absence of similar public campgrounds in the vicinity. Based on the meeting, PNF determined that the campground should remain open during construction.

Subsequent meetings between Caltrans and PNF were held to discuss construction access and staging requirements relative to the Spanish Creek Campground and measures to avoid, minimize, and compensate for impacts to the campground. PNF later decided, based on concerns for public safety and the possibility of shortening the construction timeframe, that the campground should be closed for the duration of major bridge construction operations.

### **IMPACTS TO THE MAXWELL DITCH SEGMENT**

Only a short segment of the Maxwell Ditch is located at the south end of the existing bridge. A section of ditch approximately 150 feet in length will be directly impacted by the placement of the southern bridge abutment and bridge approach. Because the ditch segment is being treated as an historic property for purposes of the proposed bridge project, the elimination of a portion of the ditch segment will constitute an adverse effect upon an historic property and, therefore, a use for purposes of Section 4(f).

### **AVOIDANCE ALTERNATIVES FOR THE MAXWELL DITCH SEGMENT**

Alternatives C and D would avoid use of the Maxwell Ditch segment, however, as discussed earlier, these alternatives do not address the project purpose and need.

The proposed southern bridge approach crosses the ditch perpendicularly at approximately the same elevation as the ditch.

### **MEASURES TO MINIMIZE HARM TO THE MAXWELL DITCH SEGMENT**

A temporary environmentally sensitive area (ESA) fence will be installed at the outer limits of the work area to protect the remaining segment from inadvertent impacts during construction.

As discussed in the Spanish Creek Bridge Section of this evaluation, an interpretive overlook is proposed near the campground entrance to provide a view of the bridge site and surrounding area, and provide information about the historic bridge, the Feather River Highway Historic District, Maxwell Ditch, Utah Construction Road, and the Western Pacific Railroad (now Union Pacific Railroad).

### **COORDINATION RELATIVE TO THE MAXWELL DITCH SEGMENT**

FHWA has determined that the undertaking will have an adverse effect upon the Maxwell Ditch due to the potential highway realignment that would result from construction of a new bridge. FHWA, with the cooperation and assistance of Caltrans, is consulting with the SHPO regarding the resolution of adverse effects in accordance with 36 CFR 800 (Section 106).

### **IMPACTS TO THE UTAH CONSTRUCTION ROAD SEGMENT**

Construction of a new bridge on an alignment immediately west of the existing bridge will require excavations to connect the southern bridge approach with the adjoining section of highway. Excavations in this area may affect a portion of the Utah Construction Road located beyond the top of cut on the west side of the highway. Because the road segment is being treated as an historic property for purposes of the proposed bridge project, elimination of a portion of the road segment will constitute an adverse effect upon an historic property and a use under Section 4(f).

### **AVOIDANCE ALTERNATIVES FOR THE UTAH CONSTRUCTION ROAD SEGMENT**

Alternatives C and D would avoid use of the Maxwell Ditch segment, however, as discussed earlier, these alternatives do not address the project purpose and need.

### **MEASURES TO MINIMIZE HARM TO THE UTAH CONSTRUCTION ROAD SEGMENT**

A temporary ESA fence will be installed during construction to prevent inadvertent impacts to the segments of roadway beyond the immediate work area.

As discussed in the Spanish Creek Bridge Section of this evaluation, an interpretive overlook is proposed near the campground entrance to provide a view of the bridge site and surrounding area, and provide information about the historic bridge, the Feather River Highway Historic District, Maxwell Ditch, Utah Construction Road, and the Western Pacific Railroad (now Union Pacific Railroad).

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**COORDINATION RELATIVE TO THE UTAH CONSTRUCTION ROAD SEGMENT**

FHWA has determined that the undertaking will have an adverse effect upon the Utah Construction Road segment due to the potential highway realignment that would result from construction of a new bridge. FHWA, with the cooperation and assistance of Caltrans, is consulting with the SHPO regarding the resolution of adverse effects in accordance with 36 CFR 800 (Section 106).

**OTHER PARK, RECREATIONAL FACILITIES, WILDLIFE REFUGES, AND HISTORIC PROPERTIES EVALUATED RELATIVE TO THE REQUIREMENTS OF SECTION 4(F)**

This section of the document discusses parks, recreational facilities, wildlife refuges and historic properties found within or adjacent to the project area that do not trigger 4(f) protection either because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

**LIST AND DESCRIPTION OF OTHER PROPERTIES EVALUATED RELATIVE TO THE REQUIREMENTS OF SECTION 4(f)**

**Spanish Creek Tunnel Overhead (Bridge # 09-0017):** The Spanish Creek Tunnel Overhead was determined eligible for the National Register of Historic Places by consensus determination as a contributive element of the Feather River Highway Historic District on April 16, 1987.

**IMPACTS TO THE SPANISH CREEK TUNNEL OVERHEAD**

The Spanish Creek Tunnel Overhead (Figure 7) is included in the Area of Potential Effects (APE) for the proposed undertaking only because it is situated above the Union Pacific (Former Western Pacific) Railroad Tunnel #31. The APE included the railroad tunnel as a potential historic property that potentially could be affected by the undertaking. Although the tunnel and the overhead are not within the work footprint, vibrations from blasting and/or ripping rock near the structures was a concern relative to the structural integrity of the tunnel. Caltrans considers the undertaking to pose a potential to affect the railroad tunnel, but not the Spanish Creek Tunnel Overhead.



**Figure 7 - Spanish Creek Tunnel Overhead**

The SHPO concurred in the Caltrans determination that the railroad tunnel and associated facilities did not meet the eligibility criteria for listing in the National Register of Historic Places due to integrity considerations.