

Lake Britton Bridge Replacement Project

Shasta County, California
District 2-SHA-89-PM 26.3/30.7
325600

Initial Study with Mitigated Negative Declaration/ Environmental Assessment with Finding of No Significant Impact



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

December 2006



General Information About This Document

What's in this document?

This document contains a Mitigated Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on State Route 89 in Shasta County, California.

The Initial Study/Environmental Assessment and proposed Mitigated Negative Declaration was circulated to the public from June 30, 2006 to August 31, 2006. Responses to the circulated document are shown in the Comments and Responses section of this document. Throughout this document, a line in the margin indicates changes from the draft document.

What happens after this?

The proposed project has completed environmental compliance after the circulation of the document. When funding is approved, the California Department of Transportation and the Federal Highway Administration can 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: Tom Balkow, Office of Environmental Management - MS 30, P.O. Box 496073, Redding, CA 96049-6073; (530) 225-3405 Voice, or use the California Relay Service TTY number, (530) 225-2019.

Finding of No Significant Impact
For
Lake Britton Bridge Replacement Project

This project would replace an existing two-lane bridge with a wide two-lane bridge, and realigning an approximate 2.7-mile section of the State Route (SR) 89 to improve safety. The project is located on SR 89 from Post Mile (PM) 26.3 to PM 30.7 in Shasta County, California. The new bridge and roadway would include 3.6-meter (12-ft) lanes with 2.4-meter (8-ft) shoulders.

The Federal Highway Administration has determined that, after study and examination, the build Alternative 1 will have no significant impact on the human environment and has selected it as the preferred alternative. This Finding of No Significant Impact is based on the attached Environmental Assessment and associated technical studies. These documents have been independently evaluated by the Federal Highway Administration and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and mitigation measures. The documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.

The Federal Highway Administration has cooperated with the California Department of Transportation and takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

5/8/2007
Date



For Gene K. Fong
Division Administrator
Federal Highway Administration

Replace bridge #6-52 and rehabilitate roadway, in Shasta County near Burney, on State Route 89 from post mile 26.3 north of Clark Creek Road to post mile 30.7 at Soldier Mountain Lookout Road

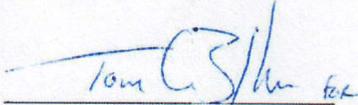
**INITIAL STUDY/
ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)

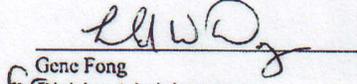
THE STATE OF CALIFORNIA
Department of Transportation

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

6/15/06
Date of Approval


Lena A. Ashley
Chief, NR Environmental Services-North
California Department of Transportation

6/28/2006
Date of Approval


Gene Fong
Division Administrator
Federal Highway Administration

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the Lake Britton Bridge and upgrade this segment of State Route 89 to meet current highway design standards.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons:

- The project would have no effect on Growth.
- The project would have no effect on Paleontology.
- The project would have no effect on Cumulative Impacts.

In addition, the project would have no significant effect on Land Use, Timberland, Community Impacts, Utilities/Emergency Services, Traffic and Transportation/Pedestrian and Bicycle Facilities, Cultural Resources, Hydrology and Floodplain, Geology/ Soils/ Seismic/ Topography, Hazardous Waste/Materials, Air Quality, Noise and Vibration, Wetlands and Other Waters, Plant Species, Animal Species, and Threatened and Endangered Species.

The project would have no significantly adverse effect on Visual and Aesthetic Resources, Water Quality and Storm Water Runoff, Invasive Species, and Construction Impacts because the following mitigation measures would reduce potential effects to insignificance:

- Revegetation of disturbed cuts, fills and abandoned roadbeds
- Use of Best Management Practices (BMPs)
- Bridge demolition after new bridge is opened
- Use of a bubble curtain at the bridge site to attenuate sound and protect aquatic resources



Brian F. Crane
District Director
District 02
California Department of Transportation

12/28/2006
Date

Summary

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) propose to replace the Lake Britton Bridge and construct 2.7 miles of new highway to conform State Route 89 (SR89) to the new bridge alignment and grade. Once the new bridge and highway are constructed, portions of the old highway alignment will be relinquished. The existing bridge will be removed. This project is located on SR89 in Shasta County, about 10 miles north of Burney, between post miles 26.3 and 30.7.

The study includes one build alternative—Alternative 1—and the no-build alternative. The build alternative includes the replacement of the Lake Britton Bridge and the realignment of SR89 from just north of Clark Creek Road south of Lake Britton to Soldier Mountain Lookout Road north of the lake. With this alternative, the replacement bridge will be 203 feet higher than the existing Lake Britton Bridge. The new alignment will have 8-foot shoulders and bypass McArthur-Burney Falls Memorial State Park, passing through National Forest System lands, Pacific Gas and Electric property, and some private property. Road connections to the State Park, Dusty Point Campground, Pines Picnic/Jamo Point Boat Ramp and private residences will be upgraded to improve safety and match the new highway improvements. Overhead and underground utility lines will be relocated.

The no-build alternative perpetuates existing nonstandard conditions. The existing bridge is at the end of its service life and is seismically nonstandard. Maintenance of this segment of highway with bridge and underpass structures that have nonstandard weight, height, and width allowances will continue. Vehicle use restrictions will continue because of the nonstandard allowances. Maintenance services to the existing highway facility will continue at increasing annual costs. State Route 89 will continue to pass the State Park entrance on the curved “loop” alignment. Traffic safety on SR89 will continue to deteriorate as traffic volumes increase.

The proposed build alternative would have potential environmental impacts, both beneficial and adverse. Potential beneficial impacts include 1) moving the state highway away from the Falls, an action that is fully supported in the McArthur-Burney Falls Memorial State Park General Plan; 2) opening the viewshed by minimizing through-cuts and steep grades; 3) tying in 8-foot shoulders with highway improvements to the north and south; 4) building a bridge with no piers in the water,

Summary

and 5) improving the handling of drainage and storm water runoff. Potential adverse impacts include 1) affecting visual and aesthetic resources, 2) affecting biological resources, and 3) permanently impacting 44 acres of National Forest System lands.

The potential environmental impacts of the build alternative are compared to the existing conditions of the no-build alternative in the following table.

Potential Impact	Alternative 1	No-Build Alternative
Consistency with <ul style="list-style-type: none"> • Regional Transportation Plan (RTP) • Transportation Concept Report (TCR) 	Consistent with RTP and TCR, replaces structurally deficient bridge.	Inconsistent with RTP and TCR, does not address need for a bridge upgrade.
	..Constructs new bridge that meets all current highway design standards.	
	Ties in 8-ft shoulders with improvements to the north and south.	Alignment lacks shoulders in the project area.
	Reduces number of miles in State's highway inventory.	No effect
Cost	Substantial cost to replace bridge.	Continued maintenance costs to prevent bridge and roadway failure.
Parks and Recreation	Alignment moves away from Burney Falls, improving the Park visitor's experience.	Alignment remains near Burney Falls, in conflict with State Park planning documents.
	Temporary closures or use restrictions during construction affect access to five recreational resources: Jamo Point, Dusty Campground, Pacific Crest Trail, Pines Picnic Area, and boating on Lake Britton. ..Permanently changes access to Jamo Point, Pines Picnic Area, Dusty Campground, private residences, and railroad tracks.	No effect
Timberlands	Acquires 35 acres of privately owned timberland in Timberland Production Zones for the realigned highway.	No effect
Utility Service Relocation	Relocates some electric, telephone, and fiber-optic lines.	No effect
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Higher roadway profile north of the bridge requires a road connection at the top of the hill, across from Soldier Mt Lookout Rd, for access to the abandoned highway section (and Jamo Point, Pines Picnic Area, Dusty Campground, private residences, and railroad tracks).	The nonstandard segment of SR89 north of the bridge remains; access to Pines Picnic Area/Jamo Point Boat Ramp and Dusty Campground does not change.
	Alignment has smooth large radius curves.	Alignment has nonstandard curves.

Potential Impact	Alternative 1	No-Build Alternative
Traffic and Transportation/ Pedestrian and Bicycle Facilities (continued)	Minimizes steep grades; reduces the grade north of the bridge from 5% to 3.8%; substantially improves the steep grade just south of the bridge.	Steep grades remain nonstandard; no change to the 5% grade north of the bridge; no change to the steep grade south of the bridge.
	Traveler safety increases because of improved vertical and horizontal alignment in mountainous terrain.	No safety improvements as existing nonstandard vertical and horizontal alignment remains; current accident rate expected to continue.
	8-ft shoulders on new structure improves safety, provides for bicycle and pedestrian traffic, allows disabled vehicles to move off the traveled way, and provides for maintenance and incident response. ..Increases clear recovery.	Shoulder width in the project area remains nonstandard.
	Shortens travel distance; 4 minutes in time savings for each through trip.	No time savings for each through trip.
	Constructs bridge that meets permit load capacity. ..Lifts permit load traffic restrictions.	Existing bridge does not meet permit load capacity. ..Permit load traffic is prohibited.
	Eliminates traffic queues on SR89 at State Park entrance.	Seasonal traffic queues form on SR89 at State Park entrance.
	Visual and Aesthetic Resources	Profile provides an open view onto the bridge in both travel directions.
Substantially higher bridge profile and new bridge design.		No change to bridge profile or aesthetics.
Vegetation removal		No effect
New cut and fill slopes		Visual character remains the same.
Abandoned roadway created by new alignment.		No effect
Places new guardrail.		No effect
Temporary material stockpiles within highway corridor.		No effect
Includes access road construction.		No effect
Cultural Resources	Burney Falls is a resource removed from SR89.	Burney Falls is a resource near SR89.
Hydrology and Floodplain	Constructs bridge piers outside the water.	Existing bridge piers are in the water.
Water Quality and Storm water Runoff	Improves handling of drainage and storm water runoff.	No change to drainage and storm water runoff.
Geology/Soils/Seismic/ Topography	Constructs bridge that meets current seismic standards.	Existing bridge does not meet current seismic standards and remains fracture critical.

Potential Impact	Alternative 1	No-Build Alternative
Geology/Soils/Seismic/ Topography (continued)	Constructs higher bridge that stays above the steep banks.	SR89 bridge is built into steep banks that drop directly into the lake along much of the shoreline.
Hazardous Waste/Materials	Eliminates lead paint. ..Uses preventive measures to avoid release of lead in old paint when the existing bridge is demolished.	Old paint on the bridge contains lead. ..Requires periodic maintenance to dispose of lead in old paint on the existing bridge and in soil below the bridge.
Air Quality	Generates particulate matter during construction. Must implement dust control practices due to State PM ₁₀ non-attainment.	Project is located in a State PM ₁₀ non-attainment area.
Noise and Vibration	Traffic noise the same with or without the project. Minimization measures recommended for construction noise: restricting work times, placing and staging of equipment away from receptors, and keeping residents informed. ..Traffic noise from SR89 will be eliminated at the State Park.	Noise levels slightly higher than existing roadway due to traffic increases (20 year build). ..Existing levels well below Noise Abatement Criteria.
Natural Communities	Net loss of regionally common upland natural communities. ..No loss of any unique or special-status communities.	No effect
Wetlands and other Waters	Minor net loss of ephemeral (non-riparian) channels. ..Net gain of perennial riparian vegetation.	No effect
Plant Species	Minimal impact	Minimal impact
Animal Species	Minor net loss of habitat for non special-status species.	No effect
Threatened and Endangered Species	Potential net gain in habitat quality for Bald eagle and Northern spotted owl.	No effect
	Potential impacts to Rough sculpin will be avoided.	No effect
Invasive Species	Removes locally common weeds during excavation for highway improvements.	Continuing presence of 'C-rated' noxious weeds.
Construction	Temporary effects to Biological resources, Noise, Air Quality, and Visual aesthetics.	No effect