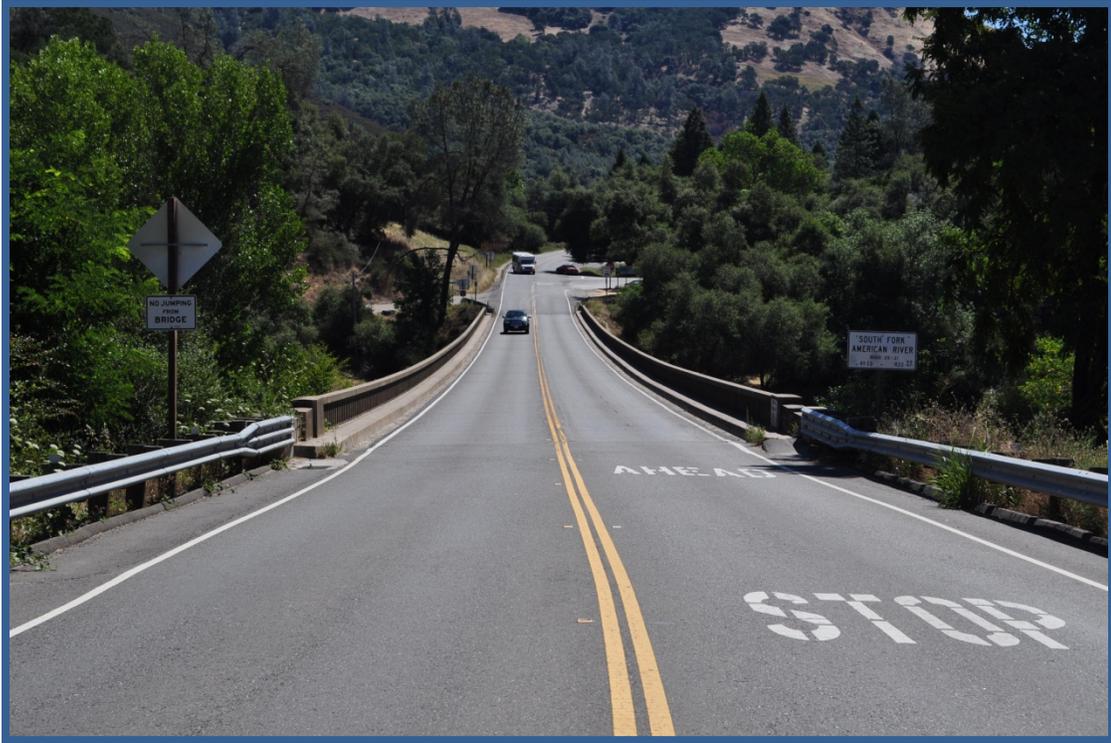


South Fork American River Bridge Project



Initial Study with a Proposed Mitigated Negative Declaration

El Dorado County on State Route 49,
South Fork American River near the Towns of Coloma and Lotus

03-ED-49-23.66/24.42

03-0F310

EFIS#: 0300000078

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

October 2014



General Information about This Document

What is in this document:

The California Department of Transportation (Caltrans) as lead agency for California Environmental Quality Act (CEQA) has prepared this Initial Study (IS), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in El Dorado County, California. The document explains why the project is being proposed, what alternatives are considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- We would like to hear what you think. There are three alternatives proposed for this project, please consider your preferred alternative given all of the benefits and effects. If you wish to leave any comments about the proposed project, please send your written comments to Caltrans by the deadline stated below.
- Additional copies of this document and related technical studies are available for review at the Caltrans District 03 Office, at 703 B Street, Marysville, CA 95901, and at the El Dorado County library at 345 Fair Lane, Placerville, CA 95667. This document may be downloaded at the following website:
<http://www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm>
- Send comments via postal mail to:
Caltrans, Office of Environmental Management
Attention: Maggie Ritter
703 B Street, Marysville, CA 95901
- Send comments via email to:
maggie.ritter@dot.ca.gov.
- Be sure to send comments by the deadline: **November 21, 2014**

What happens next:

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

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Maggie Ritter, Environmental Planning, 703 B Street, Marysville CA; (530)741-4535 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711

SCH#
03-ED-49
PM 23.66/24.42
03-0F310
EFIS# 03 0000 0078

South Fork American River Bridge Seismic Retrofit or Replacement on State Route 49, at post mile
23.66-24.42, within the Towns of Coloma and Lotus in El Dorado County

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

October 17, 2014



John D. Webb
Office of Environmental Service - South
California Department of Transportation

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to seismically retrofit or replace the South Fork American River Bridge (Br No. 25-0021) in El Dorado County on State Route (SR) 49 at post mile (PM) 23.66/24.42 near Coloma and Lotus.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a MND for this project. This does not mean that Caltrans' decision regarding the project is final. This MND is subject to change based on comments received by interested agencies and the public.

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

- The proposed project would have no effect on the following: farmland and timberland resources, air quality, noise, geology and soils, growth, coastal zone, environmental justice, wild and scenic rivers, hazards or hazardous materials, mineral resources, paleontology, population and housing, utilities and service systems.
- In addition, the proposed project would have less than significant effects to aesthetics, cultural resources, public services, land use and planning, recreation, hydraulics and water quality, and transportation/traffic.

With the following mitigation measures incorporated, the proposed project would have less than significant effects to biological resources, including riparian vegetation habitat.

For all alternatives, compensatory mitigation will likely be required for permanent impacts to riparian vegetation habitat.

John D. Webb
Chief, Office of Environmental Services
District 03
California Department of Transportation

Date

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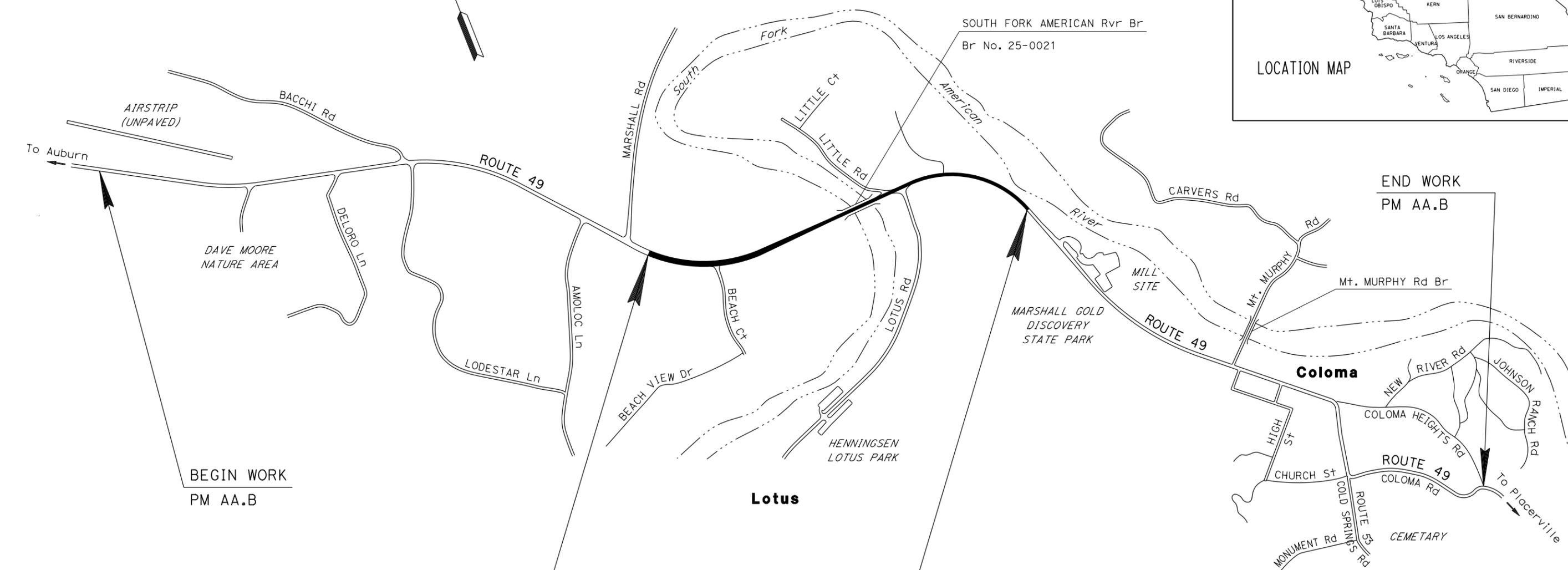
Project Vicinity Map

**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	49			

LOCATION MAP

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



BEGIN WORK
PM AA.B

END WORK
PM AA.B

BEGIN CONSTRUCTION
Sta "CCN1" XX+YY PM 24.42

END CONSTRUCTION
Sta "CCN1" XX+YY PM 23.66

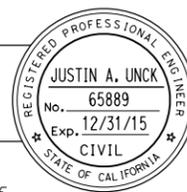
NO SCALE

PROJECT MANAGER

DESIGN ENGINEER

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT ENGINEER REGISTERED CIVIL ENGINEER DATE



PRELIMINARY DESIGN

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

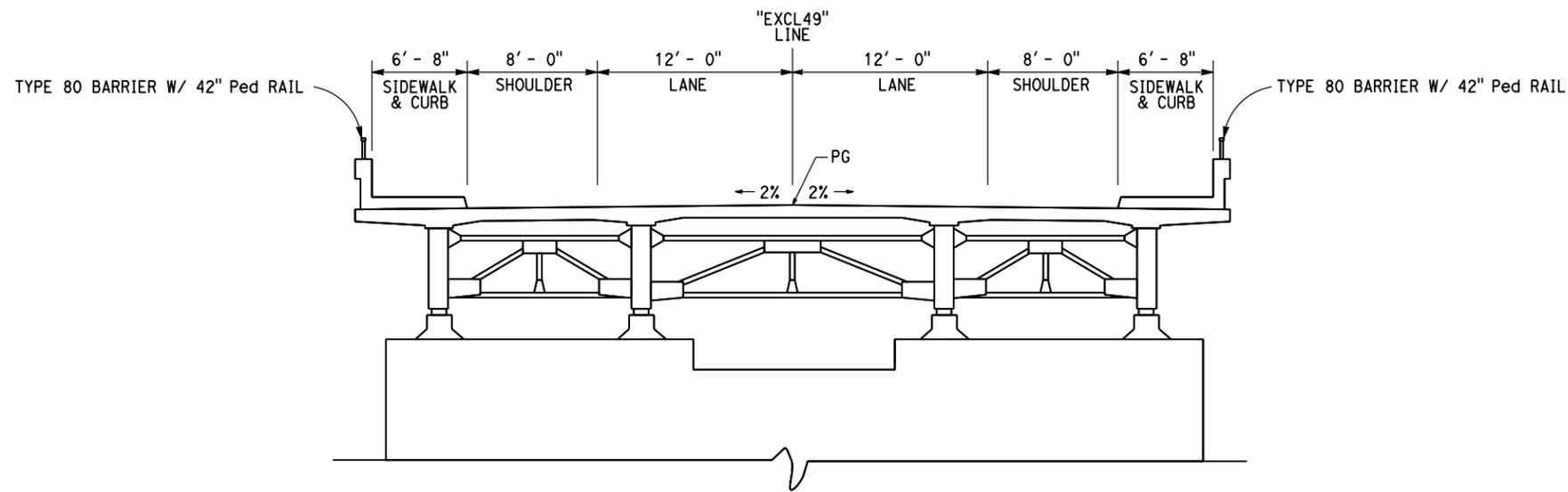
CONTRACT No.	00-000004
PROJECT ID	000000000

Alternative 2: Seismic Retrofit with Widening

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
PRELIMINARY ONLY					
REGISTERED CIVIL ENGINEER				DATE	
				7/22/14	
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



NOTES:
1. NO SCALE



Sta 39+76 TO 44+78

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED- DESIGNED BY	REVISOR BY
Caltrans		CHECKED BY	DATE REVISED

**Alt 2: Seismic Retrofit
with Widening
BRIDGE TYPICAL SECTION**

Alternative 3A: New Bridge on New Alignment

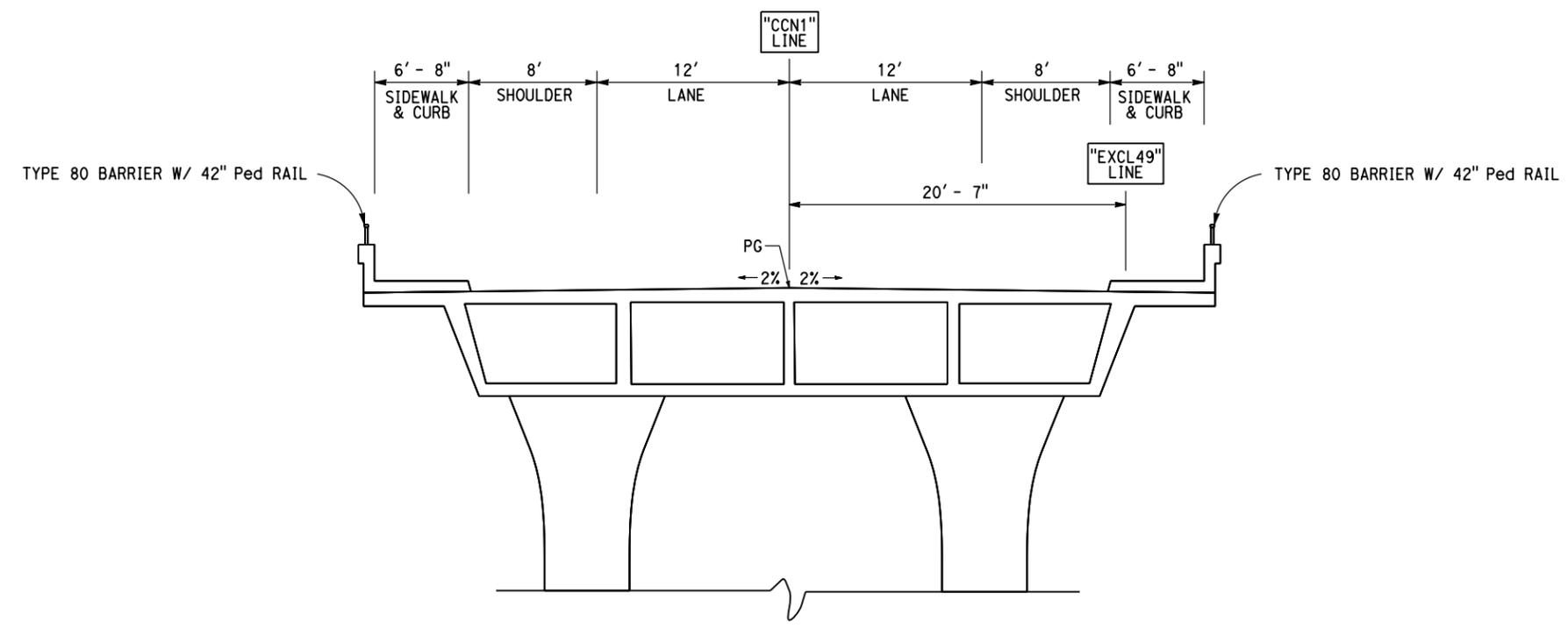
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTES:
 1. NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY ONLY
 REGISTERED CIVIL ENGINEER DATE 7/22/14
 PLANS APPROVAL DATE _____

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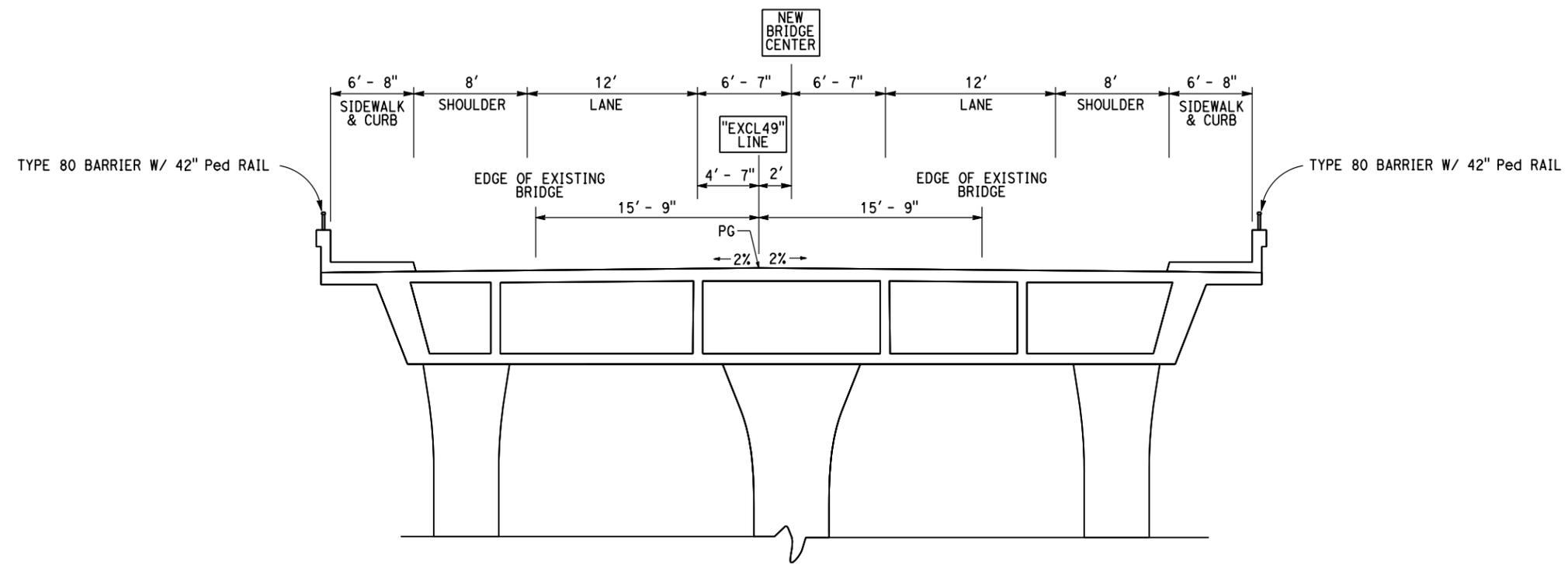
**Alt 3a: New Bridge to the North, Variation CCN1
 BRIDGE TYPICAL SECTION**

Alternative 3B: New Bridge on Existing Alignment

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
PRELIMINARY ONLY					
REGISTERED CIVIL ENGINEER				DATE	
				7/22/14	
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



NOTES:
1. NO SCALE



Sta 39+76 TO 44+78

**Alt 3b: New Bridge on the Existing Alignment, Variation TSS1
BRIDGE TYPICAL SECTION**

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Caltrans
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CHECKED BY
REVISOR BY
DATE REVISED

Chapter 1 Proposed Project

Introduction

The California Department of Transportation (Caltrans) is the lead agency for the California Environmental Quality Act (CEQA) and for the National Environmental Policy Act (NEPA). The project did not require an Environmental Assessment with a Finding of No Significant Impact (EA/FONSI) for NEPA; rather the NEPA approval will be a Categorical Exemption (CE) while the CEQA document is this Initial Study with a proposed Mitigated Negative Declaration (IS/MND).

Caltrans proposes to seismically retrofit or replace the South Fork American River Bridge in El Dorado County on State Route (SR) 49 from post mile (PM) 23.66 to 24.42. The project is programmed in the 2012 State Highway Operation and Protection Plan (SHOPP) Bridge Seismic Restoration Program and is listed in the Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan.

Purpose and Need

The purpose of this project is to preserve the integrity of the highway facility by rehabilitating or replacing the South Fork American River Bridge (Br. No. 25-0021). The bridge needs to be rehabilitated or replaced in order to meet seismic standards.

The South Fork American River Bridge was identified in the Bridge Inspection Reports as needing a seismic retrofit and other repair work which included correcting vulnerable hinges, providing cross bracing for tall steel girders, and updating the bridge rail to current standards. The bridge was identified in the 2010 project scope and summary report (PSSR) as needing a seismic retrofit without widening. However, based on the local community feedback, just a bridge retrofit without widening would not address the needs of pedestrians and bicyclists. A supplemental PSSR, approved in November 2011, provided a much broader range of alternatives, in which all of the build alternatives included widening the structure for pedestrian and bicycle use.

Project Description

Caltrans proposes to rehabilitate or replace the South Fork American River Bridge on SR 49 at post mile 24 in El Dorado County, within the communities of Coloma and Lotus. The viable alternatives considered for the project are the Seismic Retrofit with Widening (Alt. 2), New Bridge to the North (Alt. 3A), and New Bridge on the Existing Alignment (Alt. 3B). The new or rehabilitated bridge will be upgraded to

meet current design standards and will include two 12 foot lanes, 8 foot shoulders, 6 foot sidewalks, and a see-through bridge rail. Additionally, a no-build alternative is considered.

Depending on the alternative and final configuration, many of the following items of work are included in the project: road realignment, road widening, hot mix asphalt (HMA) overlay, profile correction, super correction, bridge work, embankment cut/fill, grinding, reconstruct access roads, equipment staging area, drainage/culverts, metal beam guardrail (MBGR), retaining walls, erosion control, temporary and permanent storm-water best management practices (BMP's), pavement striping and markings, temporary and permanent signing, electrical work including a flashing beacon system, markers/delineators, sidewalks and other concrete work, fencing, work in the 100 year floodplain, establishment of a clear recovery zone and sight distance clearance, right of way acquisition, temporary easements, permits to enter, utility relocation, ground disturbance, vegetation and tree removal, landscaping, pile driving, seasonal construction window, night work, river access improvements, supplemental parking, work in the stream channel, traffic control, street lighting if needed, and other miscellaneous work as needed to construct the project.

Alternatives

PROJECT ALTERNATIVES

During the development of all projects, alternatives are considered to the extent necessary to minimize items such as cost and/or potential environmental impacts, or to maximize public benefits. Generally, the concept and scope of the project alternatives can include location, geometric features, staging, construction impacts, sensitive areas, or a mix of modes. After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act (CEQA), if no un-mitigable significant adverse impacts are identified, Caltrans will prepare a Mitigated Negative Declaration (MND). Final selection of a preferred alternative will occur after the public review and comment period. (See Chapter 3, Comments and Coordination, for more information.)

Common Design Features of the Build Alternatives

The viable build alternatives will each contain at least two 12 foot lanes with an 8 foot shoulder and 6 foot sidewalks on both sides, built to current standards and Americans with Disabilities Act (ADA) compliant. Though no detours will be

incorporated into the project, traffic control measures will be needed, including one way, reversing traffic control at various times during construction. Each of the alternatives requires differing amounts of one way, reversing traffic control. All alternatives will incorporate visual aesthetics to the bridge rail, bridge design, and retaining walls. Each viable alternative is expected to take two to three construction seasons to complete, this estimate accounts for completing some work during off season periods.

Viable Project Alternatives

Alternative 2: Seismic Retrofit with Widening

Alternative 2 would seismically retrofit the existing bridge, and widen it to allow for standard lanes (12'), shoulders (8'), sidewalks (6'), and see-through bridge rails. Work on the bridge approaches would include widening and work needed to blend and connect the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed in order to maintain bridge maintenance and pedestrian access to the river if a steep slope is not incorporated. No additional right of way (R/W) is needed for this alternative.

During construction, this alternative would provide one-way reversible traffic control to public traffic at all times and two lanes would remain open when construction operations are not actively in progress.

Alternative 3A: New Bridge to the North on New Alignment

Alternative 3A would replace the existing bridge with a new bridge. In order to accommodate new bridge construction, the roadway alignment would shift to the north, and a new bridge would be constructed one half at a time using staged construction to minimize the shift. The new bridge would have standard lanes (12'), shoulders (8'), sidewalks (6'), and see-through bridge rails. Alternative 3A would have continuous sidewalks on both sides of the bridge with longer segments west of the new bridge, and a shorter sidewalk segment to the east of the new bridge. Due to the centerline shift of the new bridge, the roadway improvements would extend from the bridge and on to the existing roadway both west and east on SR 49. To the west, the project would connect approximately at the Marshall Road intersection and to the east the project would connect just before the Marshall Gold Discovery State Historic Park. To the west of the bridge, the variable width two-way left turn lane and median islands would be replicated. The new design would include additional median islands

with improved contrast features to provide traffic calming and a 12' wide two-way left turn lane. Designated turn lanes would be placed where needed.

With Alternative 3A, retaining walls may be needed to provide pedestrian access if certain R/W acquisitions or steep slopes are not incorporated into the project. The Lotus Road intersection, as well as driveways, including Little Road, would be reconstructed to meet current design standards. Roadway profile and super correction work would be incorporated into the project. R/W acquisition would be required because the new bridge's alignment shifts and the continued segments of the roadway require sight distance and standard roadway design.

During construction Alternative 3A would provide one-way reversible traffic control to public traffic at all times and two lanes will remain open when construction operations are not actively in progress.

Alternative 3B: New Bridge on the Existing Alignment

Alternative 3B involves a new bridge constructed in three portions using staged construction. The bridge center would shift approximately 2 feet to the south. The final footprint of this bridge includes standard lanes (12'), shoulders (8'), sidewalks (6'), including a 13'2" median, plus see-through bridge rails. The extra median width is a byproduct of the staged construction needed to accommodate construction of a new bridge following the existing alignment. Work on the bridge approaches would be generally limited to widening and connecting the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed to perpetuate maintenance and pedestrian access to the river if a steep slope is not incorporated. Another retaining wall and driveway realignment may be needed on Little Road, and some roadway improvements, such as connecting Little Road and Lotus Road to the highway, may be completed at the Lotus Road intersection. Minor R/W acquisition will be needed to accommodate the bridge abutment fill footprint.

During construction, Alternative 3B would provide one-way reversible traffic control to public traffic at all times and two lanes will remain open when construction operations are not actively in progress.

No-Build (No-Action) Alternative

The no-build alternative would leave the existing bridge in its current condition. This would not address the seismic deficiencies of the bridge and it would not address the

lack of pedestrian and bicycle facilities on the bridge. The no-build alternative does not meet the purpose and need of the project.

COMPARISON OF ALTERNATIVES

During the public review period, all comments will be considered; Caltrans will compare and weigh the benefits and impacts of the alternatives then select a preferred alternative. A final determination of the project's effect on the environment will be made with the selection of the preferred alternative.

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

The following alternatives were considered and rejected:

Alternative 1: Seismic Retrofit

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Although a Caltrans design exception was approved for non standard shoulders, this alternative was rejected due to opposition from the community and local governments because it does not accommodate pedestrians and bicycles. This alternative was first identified in the Project Scope Summary Report (PSSR).

Alternative 3: New Bridge

This alternative would construct a new bridge that meets current design standards on the existing alignment. To construct a bridge of standard width on the existing alignment, SR 49 would have to be closed and have a detour established. This alternative was rejected because a suitable detour does not exist and a full closure would face strong opposition from the community and local governments. This alternative was first identified in Supplemental PSSR.

Alternative 3: New Bridge, Variations NW1 and SW1

These two variations would construct a new bridge that meets current design standards on a new alignment (NW1 to the north and SW1 to the south). The 9' centerline shift in these alternatives leads to bridge stage construction that requires extensive one way traffic control. These variations were rejected because there were other viable alternatives that minimized traffic control impacts, which is an important issue to the local community. This alternative was not studied previously.

Alternative 3: New Bridge, Variation CSI

This variation would construct a new bridge that meets current design standards on a new alignment to the south. The 21' centerline shift in this alternative creates encroachments on existing business driveways on the south west corner of the bridge. Relocation and reconstruction of driveways results in substandard designs, reduced access capacity, and increased parking lot congestion. This variation was rejected because of the potential impacts to the businesses on the southwest corner of the bridge, and there is another similar alternative that remains viable (Alt 3A). This alternative was not studied previously.

Alternative 3: New Bridge, Variation TSN1

This variation would construct a new bridge that meets current design standards and has a bridge center that is shifted approximately 2' to the north. This alternative was rejected since there is a similar alternative that remains viable (Alt 3B). This alternative was not studied previously.

Alternative 4: Seismic Retrofit with Attached Pathways

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Additionally, pedestrians and bicyclists would be accommodated by new pathways created by attaching steel beams to the existing piers to provide support for the pathway. This alternative was rejected due to lack of clearance under the attached pathways for anticipated design flood elevations. This alternative was first identified in the Supplemental PSSR.

Alternative 5: Seismic Retrofit with Adjacent Pedestrian/Bicycle Bridge

This alternative would provide a seismic retrofit of the existing structure and construct a new safety barrier without widening the bridge. Additionally, a dedicated pedestrian/bicycle bridge would be constructed adjacent to the existing bridge. Although a Caltrans design exception was approved for non standard shoulders, this alternative was rejected due to a lack of interest by the local community and concerns regarding pedestrians and bicyclists having to cross SR 49 to use the new bridge. This alternative was first identified in the Supplemental PSSR.

Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Ongoing during Project Approval and Environmental Document (PAED)
United States Army of Engineers (USACE)	Section 404 Permit	Consultation started. Permit will be obtained during the final design phase
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement Permit	Consultation started. Permit will be obtained during the final design phase
Central Valley Regional Water Quality Control Board (CVRWQCB)	Section 401 Water Quality Certification	Will be obtained during the final design phase

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

As part of the scoping and environmental analysis carried for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document:

Coastal Zone: The project location is not located within a Coastal Zone of California.

Wild and Scenic Rivers: The South Fork American River, over which this project is located, does not fall within the official Wild and Scenic Rivers.

Growth: The project does not increase roadway capacity with the construction of the new or rehabilitated bridge therefore it does not have any growth related indirect impacts.

Farmlands/Timberlands: The project area is not located near any farmland or timberland resources.

Environmental Justice: No minority or low-income populations have been identified as per Executive Order (EO) 12898 and Title VI Policy Statement. Therefore all three alternatives will not cause disproportionately high adverse effects on any minority or low-income population as per EO 12898 and Title VI.

Utilities and Emergency Service: The project is not expected to substantially disrupt any utilities or emergency services in the area.

Geology/Soils/Seismic/Topography: Based on the project work, location, and conversations with the engineer, the project will not have an adverse effect on geology/soils/seismic/topography.

Paleontology: Based on the project work and location, there should be no affect to paleontological resources.

Hazardous Waste/Materials: The project work and location will not have an adverse affect on hazardous waste/materials.

Air Quality: Under the provisions of Section 7-1.02C “Emission Reduction” and Section 14-9.03 “Dust Control”, Provision 14.902, “Air Pollution Control”, requires

the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district. There may be some dust associated with the bridge construction, however it will be temporary in nature and all projects follow air quality regulations.

Noise: Depending on the alternative chosen, there may be some noise associated with construction equipment and pile driving, however this will be temporary in nature and will not exceed threshold capacity for Noise Control standards.

Human Environment

LAND USE

Existing and Future Land Use

The existing land use in the project area consists of both commercial, tourist/recreational, and residential. In both directions of SR 49 from the South Fork American River Bridge (SFARB), the land use classification is rural residential with rolling terrain. There are no planned developments within the project area, at this time. In El Dorado County, most of the proposed or planned developments are located along SR 50 which connects the Central Valley and Bay Area to South Lake Tahoe and Lake Tahoe and travels through the City of Placerville. Lotus and Coloma are approximately half way in between Auburn and Placerville on SR 49, traveling north-south through the Sierra Nevada foothills.

Because the proposed project will not alter the existing land use, there are no impacts to land use. With the inclusion of sidewalks, and a standard roadway shoulder with room for bicycles, the project follows the recreational and commercial land use designations in the project area and encourages all modes of transportation, including pedestrians and bikes.

CONSISTENCY WITH STATE, REGIONAL, AND LOCAL PLANS AND PROGRAMS

ENVIRONMENTAL CONSEQUENCES

Policy	Alternative 2, Seismic Retrofit	Alt. 3A, New Bridge on new alignment	Alt. 3B, New Bridge, wider	No Build Alt.

Caltrans Regional Transportation Concept Report for SR 49	<i>Somewhat Consistent – Project design does not include a desired left turn lane at Lotus Rd.</i>	<i>Somewhat Consistent – Project design does not include a desired left turn lane at Lotus Rd.</i>	<i>Somewhat Consistent – Project design does not include a desired left turn lane at Lotus Rd.</i>	<i>Not Consistent</i>
El Dorado County General Plan 2004	<i>Consistent</i>	<i>Consistent</i>	<i>Consistent</i>	<i>Not Consistent</i>
El Dorado County Parks and Trails Master Plan	<i>Consistent</i>	<i>Consistent</i>	<i>Consistent</i>	<i>Not Consistent</i>
Henningsen-Lotus Park Conceptual Master Plan, June 2014	<i>Somewhat Consistent - Plans to work with locals /county to connect trail in future, but not in project</i>	<i>Somewhat Consistent - Plans to work with locals /county to connect trail in future, but not in project</i>	<i>Somewhat Consistent -Plans to work with locals /county to connect trail in future, but not in project</i>	<i>Not Consistent</i>
CA Streets and HWYs Code 84.5 – Consideration of Public Access for Recreation	<i>Consistent – supplement parking, maintaining river access</i>	<i>Consistent – supplement parking, maintaining river access</i>	<i>Consistent – supplement parking, maintaining river access</i>	<i>Not Consistent</i>
Complete Streets – Integrating the Transportation Movement	<i>Somewhat Consistent – improvement to bridge structure only</i>	<i>Consistent - sidewalk, and 8’ shoulders through town and across bridge</i>	<i>Somewhat Consistent – improvement to bridge structure only</i>	<i>Not Consistent</i>

* In the following section, the various plans are summarized and then compared for consistency with the project alternatives, 2, 3A, and 3B. Explanations on the various plans’ consistencies are shown:

Regional Transportation Concept Report (TCR) State Route 49 by the Office of Advance and System Planning Caltrans, September 2000:

The Transportation Concept Report for El Dorado County SR 49, Segment 4 (post mile 15.69 to 38.23) states that the “community would like to promote recreational activities in the area, particularly rafting on the American River, and would like to add left turn lanes at Marshal Road and Lotus Road...to accommodate vehicular traffic. However pedestrian safety and convenience must be allowed for when considering any road work.”

The TCR for SR 49 suggests a left turn lane at Lotus Road, however Caltrans' traffic analysis found that a turn lane was not warranted because it did not meet the required traffic volumes. Since the TCR was prepared, a left turn lane was installed at Marshall Road. This proposed project remains consistent with the TCR and benefits to the corridor by providing pedestrian and bicycle mobility to the community.

El Dorado County General Plan (EDGP) A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief, 2004:

Some of the main land use goals in the EDGP include the protection and conservation of existing communities and rural centers, the creation of new sustainable communities, and the curtailment of urban/suburban sprawl. The location and intensity of future development should be consistent with the availability of adequate infrastructure, and mixed and balanced uses that promote the use of alternate transportation system. This proposed project remains consistent with the EDGP.

El Dorado County Parks and Trails Master Plan, March 2012:

The El Dorado County Parks and Trails Master Plan is part of the EDGP but goes into a more detailed analysis of the parks and trails of El Dorado County, excluding the Tahoe Regional Planning Association (TRPA) territory within the County. The purpose of the El Dorado County Parks and Trails Master Plan is to provide direction and implementation strategies to guide the acquisition, development, and operation of County-owned parks and trails in the Plan Area owned and/or operated by the County. The master plan addresses parks and trails currently owned or operated by the county, the provision of parks and trails to serve areas not otherwise served by local park and trail providers, and opportunities to collaborate and assist other regional providers to enhance the availability and recreational value of parks and trails for residents and visitors.

One of the proposed trails in the master plan map, within the project area, is one that travels near SR 49 and through the communities of Coloma and Lotus. The trail makes a loop from Henningsen Lotus Park up Lotus Road parallel to the South Fork American River and up to the bridge through the project area, and then travels on SR 49 to the Marshall Gold Discovery State Park. Although the details and feasibility of the proposed trail are not defined, it is a proposed trail on the county general plan. The project is not expected to prohibit the future development of the proposed trail and remains consistent with the plan because the project would not physically hinder the ability to connect the new trail.

Henningsen-Lotus Park Conceptual Master Plan, June 2014

The Henningsen Lotus Park Conceptual Master Plan, proposed to extend and rehabilitate the trail adjacent to the river and eventually forge a connection from the county park trail to the SE corner of the American River Bridge. This idea is still attainable in the future, but due to some physical restrictions on the environment and limited design information about the county park trail, the proposed bridge project could not accommodate a direct connection to the proposed county trail. Consultation with the County and a memorandum of agreement, encroachment permit, and maintenance agreement will be needed in the future for trail connection to the bridge. This project remains consistent with the plan.

California Streets and Highways Code 84.5: Consideration of Public Access for Recreation

The California Streets and Highways Code 84.5 states the following: “During the design hearing process relating to state highway projects that include the construction by the department of a new bridge across a navigable river, there shall be included full consideration of, and report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes.”

A feasibility study for public access is included in the Project Report for this project prepared by Caltrans Design. (**the feasibility study is located in the Appendices*) During the feasibility study process, Caltrans met several times with the public and interested parties to define and scope public access to the American River by means of the Caltrans R/W. Several of the measures suggested by the public have been incorporated into the project. The project remains consistent with the CA Streets and Highways Code 84.5.

Complete Streets – Integrating the Transportation System, DD-64R1:

Complete Streets is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility. It is to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of complete streets.

When all alternatives are compared, Alternatives 2 (Widen and Retrofit) and 3B (Replace Bridge to the South) would not fully support Complete Streets: Integrating

the Transportation System, Deputy Directive 64 R1(DD-64-R1). Alternative 2 would provide a widened and retrofitted bridge with pedestrian and bicycle accommodation only on the bridge structure. Alternative 3B would provide a new bridge structure with bicycle and pedestrian accommodations however, those would only be on the bridge structure and not continue down the highway through the community.

Alternative 3A, however, is consistent with Complete Streets, which includes continuous sidewalk on both sides of the bridge, room for bicycles, pedestrian opportunities, parking, transit, and ensures that travelers of all ages and abilities can move efficiently through a “complete streets” network through the heart of the community.

Avoidance, Minimization, and Mitigation Measures

To comply with the Streets and Highways Code 84.5, measures have been included in the project scope of work as determined during public outreach. Caltrans will implement the following measures:

- Maintain access to river – the legal right to cross State property for river access currently exists, and will be maintained after the project is constructed. The existing maintenance access road, also used by the public to access the river at the southwest corner of the bridge, is proposed to be paved to improve access for maintenance vehicles.
- Paved parking area (adjacent to SR49) – A total of 10 new parallel parking spaces are proposed on the south side of SR 49, west of the bridge. Additionally, a maintenance vehicle pullout is planned for the north side of SR 49, east of the bridge. When not in use by Caltrans maintenance crews, the public will be able to use it for parking.
- Informal parking – The existing informal parking on Lotus Road across from the Sierra Nevada House restaurant will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.). This parking area is outside of the project limits.
- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property and will provide guidance to river users accessing the area around bridge.

PARKS AND RECREATION

Affected Environment

El Dorado County provides many parks, trails, and recreational opportunities. The South Fork American River Bridge project area is located in an area noteworthy for recreational opportunities. Near the project area there are two parks, a community county park, and a state park. The county park is downstream from the bridge and the state park is upstream from the bridge.

East of the bridge is the beginning of Lotus Road. About a half mile south down this road is the Henningsen Lotus Community Park which occupies approximately 51 acres. The community park contains a pavilion, Little League baseball fields, softball fields, a regulation soccer field, a junior soccer field, picnic tables, group picnic area, restrooms, and paid parking. The soccer fields are of particular importance because they are the only public, non-school fields available for league soccer in an area that includes Placerville, Coloma-Lotus, and the Georgetown Divide. The soccer fields, pavilion, and ball fields are available for lease or private use. A few popular regional music festivals have annual events here as well, such as the annual American River Music Festival in late September. This community park, adjacent to the South Fork American River offers a boat launch area and beach.

Approximately one quarter of a mile traveling east on SR 49 from the South Fork American River Bridge, is the Marshall Gold Discovery Historic State Park. Acquired by the state in 1942 the park now features exhibits and historic structures including Marshall's Monument, a re-creation of Sutter's Mill, Marshall's Cabin, Pioneer Cemetery, a school house, an old blacksmith shop, and many other cabins and historic shops. Other facilities include a visitor's center and museum, an operating post-office, park headquarters, and the American River Conservancy's Nature Center. Group and individual picnic tables are available for day use and a boat launching area is available with seasonal paid parking during the summer months. People are allowed to park their vehicles there and access the river during the off-season. The South Fork American River flows from east to west across the northern part of the park. Boat put-in and take-out beaches are available for rafters and kayakers. Several paid parking lots are available throughout the park. Several trails traverse throughout the park including the Monument Trail, Monroe Ridge Trail, and Discovery Trail. The trails intermix with each other and make a 4-mile loop through the park, mostly traversing up on the ridge.

Environmental Consequences

The proposed project does not directly affect parks and recreation areas near the project vicinity. During construction, temporary impacts to all motorists could occur due to one-way reversible traffic control at the bridge site. This might include minor delays in getting across the bridge on SR 49. However, impacts during construction are temporary and at least one lane should be open for traffic at all times. Business and general operations should be able to continue during construction and after completion of the project.

On the west side of the S. F. American River Bridge, both north and south of the river are commercial rafting outfitters. They contain picnic tables, camping, and river put-ins and take-outs. There are other rafting operations upstream and downstream of the bridge as well. The rafting outfitter operations should not be affected by the project. During construction of the bridge, operations of rafting outfitters, the community park, and the state park should remain the same.

The project will not use a 4(f) resource as defined by section 4(f) FHWA code 23 U.S.C. § 138(a) and 49 U.S.C. § 303(a). A section 4(f) property includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places. Although the project will be near some 4(f) resources, the project will avoid and not use a 4(f) resource during construction of the project or after completion of the project. Caltrans has also determined that there should be no indirect impacts to 4(f) resources as a result of this proposed project.

Avoidance, Minimization, and Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft) to pass, will be maintained in the water channel to allow for rafting and boating activity.
- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.
- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Community Impacts

COMMUNITY CHARACTER AND COHESION

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 as amended (NEPA), established that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 USC 4331(b)(2)). The Federal Highway Administration in its implementation of NEPA (23 USC109(h)) directs that final decisions regarding projects are to be made in the best interest of the public. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

Affected Environment

The South Fork American River Bridge is the focal point of the study area. Extending to both sides of the bridge on SR 49 and upstream and downstream of the American River are two communities, Coloma and Lotus. The town of Coloma is located east and west of the bridge on SR 49 and Lotus is located south-east of the bridge following Lotus Road. The study area encompasses both towns, sharing a river popular for rafting, rolling hill terrain, recreation opportunities, and a mix of town amenities.

To the west of the bridge, a shopping center exists with amenities including: a coffee shop, post office, restaurants, a rafting photographer, etc. Other businesses further west of the highway include restaurants, whitewater rafting outfitters and campgrounds, cabins for rent, a feed and supply store, a saloon, cafe and dance hall, residential houses, a gas station, a dental office, and other businesses.

To the east of the bridge and immediately south is Lotus Road, which travels by the Henningsen Lotus Park, the El Dorado County Fire Station, more white water rafting outfitters, residential homes, some vineyards, and the Inn and Café. East of the bridge on SR 49 just under a mile down the road is the Marshall Gold Discovery State Historic Park. The park offers many amenities and attracts year round crowds (see Parks and Recreation section for more information). Continuing south on SR 49 and approximately 8.6 miles is Placerville, the county seat of El Dorado.

Environmental Consequences

Project Alternatives 2, 3A and 3B will have minimal, but temporary effects on the community cohesion of the area. During construction, temporary impacts could occur due to one-way reversible traffic control at the bridge site and may cause minor delays in getting across the South Fork American River Bridge. However, impacts during construction are temporary and a least one lane of traffic should be open at all times. Additionally, the cohesive quality of both towns should improve with the addition of the new or rehabilitated bridge. The addition of sidewalks and a shoulder for bicycling, where there was none before (east of the bridge in particular), will provide opportunities to cross the bridge into the adjacent town safely and in all modes of travel, encouraging cohesiveness.

With the No-Build alternative, the community's character and cohesion would remain as is. There would not be sidewalks or a shoulder on the bridge for a pedestrian or bicyclist to get safely across.

Avoidance, Minimization, and/or Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft) to pass, will be maintained in the water channel to allow for rafting and boating activity.
- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.
- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Relocation and Real Property Acquisitions

Regulatory Setting

Caltrans' Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code [USC] 2000d, et seq.). Please see Appendix C for a copy of Caltrans' Title VI Policy Statement.

Affected Environment

This project will not require the relocation of any properties, at this time. However, the project will require some right of way (R/W) acquisition.

Environmental Consequences

For Alternative 2, Seismic Retrofit with Widening, project right of way acquisition would be minimal. Work at the bridge abutments may require a few small slivers of R/W acquisition.

For Alternative 3A, New Bridge to the North, project work would require R/W acquisition. This alternative would include continuous sidewalks from the Sierra Nevada House restaurant, across the bridge and then continuing up to Marshall Drive. Under this alternative, an existing series of left turn lanes would be replaced with a continuous, two way left turn lane west of the bridge. Retaining walls would be needed if certain R/W acquisitions or steep slopes are not incorporated into the project. The Lotus Road intersection, as well as driveways and Little Road, would need to be reconstructed to meet current design standards.

For Alternative 3B, New Bridge on the Existing Alignment, project work would require minimal right of way acquisition. Work on the bridge approaches would be generally limited to widening and the blending work needed to connect the widened bridge and sidewalk to the existing roadway and foot paths. A retaining wall may be needed if a steep slope is not incorporated. An additional retaining wall and driveway realignment may be needed on Little Road and some roadway improvements at the

Lotus Road intersection may be completed. Minor right of way acquisition would be needed for this alternative.

Avoidance, Minimization, and/or Mitigation Measures

Because the proposed project will not require any property relocation, measures to avoid property relocation is a part of the project design. The project will require R/W property acquisition for all three alternatives. The Caltrans R/W staff will work with property owners for acquisition in the next phase of the project.

TRAFFIC AND TRANSPORTATION / PEDESTRIAN AND BICYCLE

Regulatory Setting

Caltrans' as assigned by the Federal Highway Association (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including Transportation Enhancement Activities.

Affected Environment

Access, Circulation, and Parking

The existing environment and project area consists of the two small towns of Coloma and Lotus, nestled in the foothills with a river winding its way through the surrounding terrain. The economy of both towns is connected to the recreational

opportunities available because of the area's unique environment relationship with the river.

The layout of the land and recreational opportunities in the area provide a unique circulation movement in the area. Kayaking and river rafting is popular not only for locals but for tourists and travelers as well. The area is particularly unique because of the river "loop" which has become a popular route and is easy for beginner kayakers and rafters. The loop is a river route that starts from the State Park and follows the horseshoe curve of the river, taking advantage of its convenient put-ins and take-outs. It is unique in that the loop goes through three areas where the rafters can get in or out of the river, which includes the South Fork American River Bridge project area, the local Henningsen Lotus Park (HLP), and the State Park.

Some typical scenarios of recreation circulation, including walking and parking patterns during the peak summer season might include the following scenarios:

- People park at a paid lot at the State Park where they launch their river crafts, then float downstream and get out at the South Fork American River Bridge project area, then walk along SR 49 carrying their rafts to their cars parked at the State Park.
- People park at a paid lot at the State Park, launch their crafts, then go past the bridge and get out at the HLP, then they must walk their rafts along Lotus Road and then onto SR 49 to get to their vehicles at the State Park.
- People park at the South Fork American River Bridge project area at an informal pullout on the southeast side, launch their crafts, then go down to HLP and take the crafts out, then walk their crafts back up to the bridge near where their car is parked. Or they could float further downstream to another paid take-out spot, past HLP.
- People park on the west side of the bridge where the Coloma/Lotus retail, restaurant, coffee shop, post office, and commercial area is, then launch their crafts on the west side of the bank at the South Fork American River Bridge project area, then raft downstream towards HLP and take out there (or take out elsewhere downstream). They then carry their rafts back up Lotus Road to SR 49 and cross the bridge project area and back up to their car in the commercial center.

- People informally park at the northeast corner of the South Fork American River Bridge project area at the entrance to Little Road, occasionally blocking the road, then launch into the river, walking back up Lotus Road and then the highway.

Besides rafting and other water craft opportunities in the area, there are many camp grounds located along the path of the river. Fishing, hiking, backpacking, bicycling, and swimming are of the some other recreational opportunities in the area surrounding the project.

There are some private shuttles that cart the recreational river users up and down the highway, alleviating some of the traffic problems in the area.

Environmental Consequences

The implementation of this project will enhance and improve the bicycle and pedestrian facilities on the South Fork American River Bridge, by adding sidewalks and standard shoulders with room for bikes, and will improve connectivity between the two communities of Lotus and Coloma. The new or rehabilitated bridge will be built to ADA standards. In addition to the work on the bridge, Alternative 3A proposes continuous sidewalks throughout the highway corridor improving access and safety for pedestrians.

During construction, there will be minor impacts to traffic and transportation facilitates however those impacts will be temporary as they are occurring only during construction. Public transportation operations should be able to continue as they normally would, but may see a slight change in operation time during construction.

With the No-Build alternative, the current situation would remain. There would not be sidewalks or a shoulder on the bridge for a pedestrian or bicyclist to safely cross and the access, circulation, and parking situation would remain the same.

Avoidance, Minimization, and/or Mitigation Measures

Measures to minimize impacts during construction include:

- One-way reversible traffic control in accordance with Standard Plan sheet T13 may be allowed at all times.
- The maximum length of any lane closure shall be limited to 0.8 mile.

- A minimum of one paved traffic lane not less than 11 feet wide shall be open for use by public traffic at all times, and two lanes shall remain open when construction operations are not actively in progress.
- A minimum of 4 foot shoulder shall remain open at all times for pedestrian and bicycle use.
- The use of K-rail is recommended to separate the work zone from the public traffic.
- Work behind k-rail may be performed at any time.
- Consider using a temporary traffic signal to control traffic when the bridge is reduced to one lane open.
- Advance flaggers may be needed in areas where there is inadequate approaching sight.
- When bridge rail is removed, K-rail shall be secured in place prior to allowing traffic on the bridge.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.
- Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.
- Portable changeable message signs will be required in direction of traffic during construction for each lane, shoulder, and bridge closure.

- Work at this location may require the assistance of COZEEP, but probably not a full time presence.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.
- Lane closure charts will have to be developed prior to P&E.

VISUAL/AESTHETICS

Regulatory Setting

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on 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.

The California Environmental Quality Act (CEQA) 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” (CA Public Resources Code [PRC] Section 21001[b]).

Affected Environment

A Visual Impact Assessment (VIA) was prepared by a Caltrans Landscape Architect in July 2014. The project location and setting provides for the context of determining the type of changes to the existing visual environment.

The town(s) of Lotus and Coloma lie within the Coloma Valley, which is surrounded by the Sierra Foothills and its center is the South Fork of the American River. During the spring and summer months this area becomes congested with visitors who are attracted to the recreational activities that are offered by the river and beyond. The locale has become popular for its white water rapids. Although the Historical Town of Coloma draws visitors year round, the cooler season brings a quieter and less congested community. The visual setting of the area is rural in character. The highway winds through hilly terrain and it crosses over the South Fork of the American River.

The population affected by this project is comprised of viewers. Viewers are people whose views of the landscape may be altered by the proposed project – because either the landscape itself has changed or their perception of the landscape has changed. Two variables determine the extent of visual impacts. First, there is the response that viewers have to changes in their visual environment, and second, there is the change to the visual resources themselves.

There are two types of viewer groups for highway projects: highway neighbors and highway users. Each viewer group has their own particular level of viewer exposure and viewer sensitivity, resulting in distinct and predictable visual concerns for each group, which help to foresee their responses to visual change. Highway neighbors can see views of the road and bridge are from people who live within close proximity to the site and people who are visiting that area or using the river for recreational purposes. Most of these viewers are folks living within the residential, commercial/business, and recreational sites that are within close proximity to the bridge. Highway users are people who have views from the road. The users of this road consist of local and recreational traffic, tourists, commuters and business owners, and pedestrians and bicyclists as well. The observations from the bridge consist of views of the South Fork American River and its surrounding landscape of deciduous and riparian trees. The views from the road as one approaches the bridge from the west side is heavily vegetated on both sides of the corridor and has a commercial/business strip along the corridor prior to approaching the bridge. Traveling from the east appears less developed as one travels from Marshal Gold Discovery State Park. Both sides of the bridge have dense vegetation in the areas that have not been developed. The scenery is pleasant.

Environmental Consequences

The following section describes the visual appearance of the project and how that would affect the setting and view for each affected viewer group.

No Build

The No-Build alternative would have no impact.

Alternative 2

Alternative 2 would seismically retrofit the existing bridge structure, widen for standard size lanes and shoulders, and provide for sidewalks and concrete barriers. These changes would be noticeable. The approaches to the bridge would be widened

to match the bridge deck and to the existing roadway and footpaths. The profile of the retrofitted bridge would be wider; therefore would be noticeable of its new changes. The overall look of the corridor on both sides of the bridge would not impact the visual integrity of the community and its surrounding area.

Overall this alternative would have the least visual impacts. The visual look would be altered due to an increase in the pier's width and slight increase in the bridge deck's width of the retrofitted structure. After the roadway ties into the new width of the structure the existing corridor would maintain its current look; therefore there would be no visual impact to the highway and its surrounding area.

Alternative 3A

Alternative 3A would construct a new bridge, requiring the roadway's alignment to shift to the north and be built one half at a time (also called half-width construction). The new bridge would be wider than the current bridge. Sidewalks would be provided on both sides of the bridge and due to the shift to the north the roadway will also shift in order to connect with the new bridge. The roadway would tie back into the existing roadway near the Marshall Road intersection and the eastern section would match up with the roadway at Marshall Gold Discovery State Park. This proposed alternative would construct continual sidewalks on both sides of the road west of the new bridge and a short segment to the east. An existing series of left turn pockets and median islands would be replaced and altered in accordance with Traffic Operations recommendations. This alternative would have the most noteworthy changes in the visual setting of the area. The installation of sidewalks and moving the centerline of the roadway to the north would alter the look of the community. The shift in the roadway would require removing trees and vegetation. These changes along the roadway would change the look of the community, but these improvements would provide an upgrade in American Disability Act (ADA) standards and create a more modern look to the community. During the design phase of the project consideration should be given to context sensitive solutions for introducing the necessary ADA standards.

Alternative 3A would have the largest visual impact due to the shift in the roadways alignment and installation of sidewalks. This alternative would require a larger amount of ground disturbance and tree removal. The installation of curbs and sidewalks would alter the look of the community, with a look more urban in character.

Alternative 3B

Alternative 3B would build a new bridge with three stages of construction. The bridge centerline would shift approximately two feet to the south. The final footprint of this bridge would be wider than the other two build alternatives, in that it would leave a 13'2" median on the new bridge. This is due to the staged construction to allow for the bridge to follow the existing alignment. The construction on the bridge approaches would be generally limited to widening and work needed to connect the widened bridge and sidewalk to the existing roadway and foot paths. The wider width of this bridge would be noticeable and change the profile and look of the current bridge. This would be quite obvious to the local community. The width of the new bridge for this alternative would be noticeably wider than the current bridge; however the roadway would not change its alignment. Therefore, the corridor on both sides of the bridge would not be altered due to fewer disturbances to the trees and vegetation. Curbs and sidewalks would not be installed and the majority of the current look of the streetscape would be left in its present condition. Alternative 3B would have less of a visual impact to the corridor on both sides of the bridge as compared to Alternative 3A. The corridor extending beyond the bridge would maintain its present look. In summary, the new bridge would be apparent and wider but, the roadway would remain the same.

All Build Alternatives

All of the build alternatives may require retaining walls at various locations to reduce the need for steep cut slopes; therefore reducing ground disturbance and keeping more vegetation and trees intact. The implementation of aesthetic features and integral concrete coloring of the walls would help reduce any glare.

Temporary Construction Impacts

All of the alternatives except for the no build will have temporary visual impacts caused by construction. The construction of the bridge will be visually obvious as false work is built in order to accomplish the bridge construction. There will also be staging areas on the south sides of the bridge. Other inconveniences will include dust from the project and trucks hauling materials. The duration of construction, however will be temporary.

Cumulative Visual Impacts

Cumulative impacts are those resulting from past, present, and reasonably foreseeable future actions, combined with the potential visual impacts of this project. The cumulative impacts caused by this project will be most prevalent with the development of Alternative 3A due to the installation of sidewalks and realignment of the road. This could set a precedence of creating a more developed community. The visual impacts will be less than significant with the implementation of the minimization measures described in the following section.

Avoidance, Minimization, and Mitigation Measures

Avoidance or minimization measures have been identified and can lessen visual impacts caused by the project. In addition, the inclusion of aesthetic features in the project design previously discussed can help generate public acceptance of a project. This section described additional avoidance and/or minimization to address specific visual impacts. These will be designed and implemented with concurrence of the Caltrans Landscape Architect.

The following measures to avoid or minimize visual impacts will be incorporated into the project:

- All areas disturbed due to all construction activities, including staging locations and access roads shall be restored to its pre-construction condition upon completion of the project. This can be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with a native seed mix and erosion control blankets).
- Minimize the removal of and avoid where feasible established trees and vegetation. Where it is possible to save and preserve existing trees (of significant size and maturity), care and caution should be implemented during the construction phase. Environmental Sensitive Area (ESA) fencing shall be installed to demarcate areas where vegetation is being preserved and root systems of trees shall be protected.
- All disturbed areas during each construction season shall utilize BMPs which will include temporary erosion control at the end of each construction season.
- Aesthetic treatments used on this project should consider using similar features and colors that will be consistent with the current project being built at the Marshall Gold Discovery State Historic Park. These elements consist of

colored stamped concrete. This work should be completed under the direction of the District's Landscape Architect unit.

- The retaining wall(s), if constructed, shall incorporate designing and aesthetic features into the walls, this will be determined during the design phase; additionally, the wall shall be colored or painted with earthen hues to blend with the natural surrounding environment. This will help reduce glare as well.
- The new bridge alternative should consider a “see through” railing constructed as part of the bridge's deck. This will allow the traveling public to view the river and surrounding landscape.
- Trees and shrubs removed as part of a riparian zone will be replaced as part of the required mitigation (*see Biology Section*). The biologist shall mitigate to ensure the placement of the replanted trees and shrubs for riparian habitat. This will also meet the recommendation for minimizing visual impacts.

CULTURAL RESOURCES

Regulatory Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966 , as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic 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 Code of Federal Regulations (CFR) 800]. On January 1, 2004, a Section 106 Programmatic Agreement (PA) between the Advisory Council, the Federal Highway Administration (FHWA), State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities

to Caltrans. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA 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 the National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way.

Affected Environment

The August 2014 Historic Property Survey Report (HPSR) and Archaeology Survey Report (ASR) was completed by qualified cultural resource personnel at Caltrans. An intensive archaeological inventory of the project's Area of Potential Effects (APE) was conducted between April 2013 and July 2014. The inventory effort consisted of a pre-field literature and records review, consultation with the Native American community, as well as local historic preservation organizations, and an intensive pedestrian field survey by professionally qualified archaeologists.

As a result of cultural resource inventory, 15 cultural resources were identified near the project area, but none within the APE. Most of those cultural resources are related to historic mining activities. No cultural resources were encountered during the pedestrian survey(s) as well. Research indicates there was an 1800's diversion tunnel that once existed underneath a portion of the project area. However, it has collapsed or been filled in with no physical evidence remaining. The tunnel, if in existence, was below the vertical APE of the original bridge construction and would therefore be below the current project's APE. Given this, there is no potential to affect this resource if any portion is still intact. No physical evidence remains that any part of the tunnel is intact or retains any integrity and the exact location or depth below surface cannot be confirmed.

If cultural materials are discovered during construction, all earth moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public

Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovers any remains will contact Caltrans District 03 Environmental staff so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Environmental Consequences

Alternatives 2, 3A, and 3B are not likely to impact the cultural resources in the area. Most all of the identified cultural resources within the vicinity of the bridge are outside of the project impact area. Any remains of the 1800's diversion tunnel is most likely out of reach of the new bridge's footprint and construction area.

The project will not use a section 4(f) historic resource.

Avoidance, Minimization, and Mitigation Measures

It is the Caltrans policy to avoid cultural resources whenever feasible. Further investigation of the resources located within the APE may be necessary if they cannot be avoided by the proposed project. Additional archeological surveys will be necessary if project limits are expanded to include areas outside the current APE limits. In the event that buried archeological materials are encountered during construction, Stipulation XV will be followed. Post Review Discoveries, Section B.1.-3 in the January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

Physical Environment

HYDROLOGY AND FLOODPLAIN

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

A Floodplain Hydraulic Study was completed for this project in March 2014. Federal Emergency Management Agency (FEMA) maps dated September 6, 2008 indicated that the flood zone within the project area is Zone A. Zone A is defined as “No base flood elevations determined.” Typically the 100-year base flood surface elevation needs to be determined in order to evaluate the impacts of the proposed alternatives; however, a USGS publication, *Floods in Northern California*, January 1997, identified the 1997 flood event and its associated discharge as the “flood of record”. This discharge (90,000 cubic feet per second) was incorporated into the HEC-RAS modeling and then used to identify potential impacts of the various alternatives for this project.

Environmental Consequences

During substantial events, flooding may occur beyond the existing floodplain such as the 1997 flood event. The project is expected to have a less than significant impact on the floodplain. Each of the proposed alternatives was evaluated for impacts on river velocities, water surface elevations and debris passage and each was determined to have a less than significant impact in these areas.

Avoidance, Minimization, and Mitigation Measures

The following measures are recommended for any alternative in order to minimize impacts to the floodplain:

- The proposed bridge should have the same number of piers (or less) as the existing bridge. In other words, obstructions to flow in terms of area facing flows should not be greater than the existing bridge.
- The waterway area using either the 100-year event or the “flood of record” water surface elevation as a maximum elevation under the bridge should not be reduced below existing available waterway area.

WATER QUALITY AND STORMWATER RUNOFF

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source¹ unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

¹ A point source is any discrete conveyance such as a pipe or a man-made ditch.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of the USACE’s Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s Section 404 (b)(1) Guidelines (U.S. EPA Code of Federal Regulations [CFR] 40 Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent² standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

² The U.S. EPA defines “effluent” as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect these uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **National Pollutant Discharge Elimination System (NPDES) Program**

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as “any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water.” The SWRCB has identified Caltrans as an owner/operator of an MS4 under federal regulations. Caltrans’ MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans’ MS4 Permit (Order No. 2012-0011-DWQ) was adopted on September 19, 2012 and became effective on July 1, 2013. The permit has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges.

It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ), adopted on September 2, 2009, became effective on July 1, 2010. The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop storm water pollution prevention plans; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The 2009 Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with the Department's Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with state

water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as Waste Discharge Requirements (WDRs) under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Affected Environment

Receiving Waters and Total Maximum Daily Load:

A Water Quality Assessment (WQA) was completed in October 2013 by qualified Caltrans National Pollutant Discharge Elimination System (NPDES) staff and involved (in part) the use of Caltrans' Water Quality Planning Tool (WQPT) and the State Water Resources Control Board Impaired Water Bodies Map to identify receiving waters close to the project area and to evaluate potential receiving water risk due to proposed construction operations. Using these tools, the receiving water nearest to the project is the South Fork of the American River (below Slab Creek Reservoir to Folsom Lake), located within Hydrologic Sub-Area (HSA) No. 514.32. The South Fork of the American River to Folsom Lake is a 303(d) listed limited segment water body and has Total Maximum Daily Load (TMDL) for the pollutant Mercury. However, this TMDL is not anticipated to be approved by the EPA until 2021, and the source for the pollutant is identified as being from resource extraction and not a pollutant that Caltrans is responsible for addressing.

Beneficial Uses:

The following beneficial uses are the most applicable for the water bodies in or near HSA 514.32: AGR, COLD, MUN, POW, REC1, REC2, WARM, and WILD. The Central Valley Regional Water Quality Control Board (Regional Board) is charged with protecting all these beneficial uses from pollution and nuisance that may occur as a result of waste discharges in the region. A detailed description and additional information related to the beneficial uses identified, and their associated water quality objectives, can be found in the Regional Board Basin Plan.

Municipal Separate Storm Sewer System Phase I or II Permit:

The proposed project does not appear to be within a County or City Municipal Separate Storm Sewer System (MS4) Phase I or II permitted area; however, all projects within Caltrans' right-of-way (ROW) must adhere to the requirements of the Caltrans MS4 Permit (see Avoidance, Minimization, and/or Mitigation Measures section below).

Drinking Water Reservoirs:

No drinking water reservoirs and/or recharge facilities were identified in the project area, near Caltrans's owned right-of-way.

High Risk Receiving Watershed:

High Risk Receiving Watersheds are either listed (303(d)) as being impaired for sediment/siltation or turbidity, or have an EPA approved sediment related TMDL, or have existing beneficial uses of SPAWN, MIG, and COLD (according to the most recent Regional Board Basin Plan). Using the WQPT, the proposed project does not appear to be within the boundaries that designate a "High Risk Receiving Watershed" area.

Environmental Consequences

Analysis of the overall project watershed indicates that the receiving water risk is relatively low. Due to the nature of the work described in the associated environmental documents and project report, it is not expected that construction operations will impact water quality. The proper application and appropriate use of construction site best management practices (BMP's) is anticipated and should reduce the potential for environmental impacts.

Avoidance, Minimization, and/or Mitigation Measures

The following actions are recommended, in order to protect receiving water bodies from potential pollution arising from construction activities and/or operations related to this project:

1. If the temporary storage of equipment and material on State property is permitted by the Engineer, all soil disturbance created within the contract limits or at the Contractor's secured area(s), shall be accounted for in the total disturbed soil area (DSA) estimate.

2. Caltrans' Storm Water Management Plan (SWMP), Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs. Line Item BMPs may be required during the Plans Specifications and Estimate (PS&E) phase of the project.
3. The project shall adhere to the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) MS4 Permit (Permit), CAS No. 000003 Order No. 2012-0011-DWQ. As necessary, consult with your NPDES coordinator for additional Permit requirements and guidance.
4. Adherence to the compliance requirements of the NPDES General Permit CAS No. 000002 (Order No. 2010-0014-DWQ) for General Construction Activities is required if the DSA is equal to or greater than 1.0 acre. If the total DSA is less than 1.0 acre, a Caltrans approved Water Pollution Control Plan (WPCP) will be required, which specifies the level of temporary pollution control measures for the project.
5. Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operations from this project:
 - a. Follow all applicable guidelines and requirements in the 2010 Caltrans Standard Specifications (2010 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.
 - b. Consideration should be given to 2010 CSS, Section 13-4 (Job Site Management), to control potential sources of water pollution before it encounters any storm water system or watercourse. It requires the Contractor to control material pollution, manage waste, and non-storm water at the construction site.
 - c. The Contractor prepared WPCP or SWPPP (whichever is applicable for the project) shall incorporate appropriate Temporary Construction Site BMPs to implement effective handling, storage, use and disposal practices during construction activities.

- d. Shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day and prior to the onset of any precipitation.
 - e. Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs.
 - f. Attention should be given to 2010 CSS, Section 13-4.03D(3), Concrete Waste, when pipe lining operations involve annular space grouting.
 - g. Attention should be given to 2010 CSS, Section 13-4.01B, Submittals, before dewatering operations commence.
6. Refer to the State Water Resources Control Board, Water Quality Permit Order No. 2003-0003-DWQ, for specific requirements relating to low threat discharges to land, where and when applicable, for proposed dewatering operations. A waiver by the Central Valley Regional Water Quality Control Board (Regional Board) can be utilized if the following conditions are met for low threat discharges to land (Anne Olson, 10/24/12):
- 1) Waiver (No Report of Waste Discharge (RWD) / No fee): no known existing groundwater pollution; less than three weeks duration; and less than 10,000 gpd.
 - 2) Waiver (RWD, fee, and Notice of Applicability (NOA) required): no known existing groundwater pollution; less than three weeks duration; and up to 100,000 gpd (we want to make sure that they have enough land committed and good BMPs to contain the water).
 - 3) Low Threat General Waste Discharge Requirements (RWD, fee and NOA required): almost everything else.
7. Refer to the Regional Board Permit General Order No. R5-2008-0081, for specific requirements relating to low threat discharges to surface water, where and when applicable, and for proposed dewatering operations. Discharges covered by this General Order, are either 4 months less in duration, or have an average dry weather flow of less than 0.25 million gallons per day.
8. Batch plants and/or rock crushing activities within Caltrans R/W will require the preparation of an Air Space Lease Agreement prior to mobilization. The Lessee

shall obtain an Industrial Storm Water General Permit Order 97-03-DWQ (General Industrial Permit) from the State Water Resource Control Board (SWRCB). The Lessee shall submit a copy of the Notice of Intent (NOI) to comply with the terms of the General Industrial Permit, a copy of the receipt letter with the Waste Discharge Identification (WDID) Number from the SWRCB, an approved Storm Water Pollution Prevention Plan (SWPPP), and a monitoring plan when filing for a Caltrans Encroachment Permit. The Lessee shall submit any amendments to the SWPPP, copies of any sampling/monitoring results, a copy of the annual report, and any reporting requirements covered by the General Industrial Permit. Batch plant or rock crushing activities outside of Caltrans ROW will require additional coordination.

9. Caltrans NPDES Staff may participate in early project design consultation with the Regional Board if the project entails one or more acres of DSA.

Biological Environment

NATURAL COMMUNITIES

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section. Wetlands and other waters are also discussed below.

Habitats and natural communities are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status plants or animals occurring on site. Valley oak woodland and valley foothill riparian were found to be present within the Biological Study Area (BSA).

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. The natural communities that occur within the vicinity of the Biological Study Area (BSA) are described below:

Valley Oak Woodland –

Oak woodlands are a protected natural community that occurs near the BSA. In accordance with Senate Concurrence No. 17, oak woodland is defined as a five-acre circular area containing five or more oak trees per acre. The oak species protected under this resolution include Blue, Engelman, Valley, and Coast Live Oak. There are Valley Oak woodlands surrounding the project area and the proposed highway widening may have direct and indirect impacts to oak woodlands, in general. Valley oak woodland habitat type does not occur within the existing or proposed bridge footprint. The type and area of impacts varies among the three viable project alternatives.

The tree canopy layer consists of valley oaks (*Quercus lobata*) interspersed with California sycamore (*Platanus racemosa*), Northern California black walnut (*Juglans hindsii*), interior live oak (*Quercus wislizeni*), box-elder (*Acer negundo*), and Foothill Pine (*Pinus sabiniana*). The shrub understory consists of poison-oak (*Toxicodendron diversilobum*), California wild grape (*Vitis californica*), toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*), and Himalayan blackberry (*Rubus armeniacus*). Various sorts of wild oats (*Avena fatua*), brome (*Bromus sp.*), barley (*Hordeum sp.*), ryegrass (*Lolium sp.*), and needlegrass (*Achnatherum sp.*) make up the ground cover. These woodlands provide food and cover for many species of wildlife.

Valley Foothill Riparian –

Riparian habitat is a sensitive natural community that is important to the ecological function of the stream system. It provides bank stability, wildlife habitat, nutrient cycling, and lower water temperatures. Throughout the BSA this habitat type is highly disturbed due to the recreation activities in the area.

In the project BSA, this habitat type is located along the banks of the river and on the gravel bar that covers most of the proposed bridge footprint. The tree canopy layer consists of cottonwood (*Populus spp.*), California sycamore, and valley oak. Subcanopy trees include white alder (*Alnus rhombifolia*), box-elder (*Acer negundo*),

foothill pine (*Pinus sabiniana*), interior live oak, and Oregon ash (*Fraxinus latifolia*). Typical understory shrub layer plants include poison-oak, California wild grape, wild rose (*Eriogonum elongatum*), California coffeeberry, button bush (*Cephalanthus occidentalis*), Himalayan blackberry and willows (*Salix* spp.). The herbaceous layer consists of sedges (*Carex* spp.), rushes (*Juncus* spp.), miner's lettuce (*Claytonia perfoliata*), Douglas' sagewort (*Artemisia douglasiana*), poison-hemlock (*Conium maculatum*), and hoary nettle (*Urtica dioica* ssp.). This habitat type provides food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife.

Environmental Consequences

Valley Oak Woodland –

All three alternatives could indirectly and directly impact this habitat type.

The cut and fill areas proposed to widen the highway in Alternative 3A would require removal of approximately 35 oak trees throughout the BSA. In Alternatives 2 and 3B tree removal associated with the bridge construction may result in the removal of approximately 15 oak trees throughout the BSA. Once a preferred alternative is chosen, additional surveys will be conducted to determine the species, diameter, and more approximate number of oak trees that will be impacted by the project.

The removal of oak trees as a result of the proposed project is not likely to have a cumulative impact to the continued health of oak woodlands.

Valley Foothill Riparian –

The proposed project will result in permanent and direct impacts to riparian vegetation for all alternatives and on both sides of the river. Temporary and indirect impacts to riparian vegetation may result from equipment movement under the bridge mainly along the gravel bar and a smaller riparian area on the other side of the river.

Alt 2: Potential permanent riparian habitat impacts are approximately 0.04 acres and approximately 20 linear feet (LF).

Alt 3A: Potential permanent riparian habitat impacts are approximately 0.04 acres and approximately 25 LF.

Alt 3B: Potential permanent riparian habitat impacts are approximately 0.05 acres and approximately 39 LF.

Alternatives 2, 3A, and 3B each have the potential to temporarily impact approximately 0.5 acres and approximately 150 LF of riparian habitat.

The removal of riparian vegetation as a result of the proposed project is not likely to have a cumulative impact to the continued health of the South Fork American River and associated riparian habitat.

Avoidance, Minimization, and/or Mitigation Measures

In order to avoid and minimize potential impacts to the sensitive natural communities, the removal of native vegetation, including oak trees and riparian habitat, will be confined to the minimal area necessary to facilitate construction activities. All disturbed soil areas will be restored to their existing condition, to the extent possible.

Measures that will be implemented to avoid or minimize impacts to the natural communities of the project area include ESA fencing, biological monitoring, and pre-construction biological surveys.

Compensatory Mitigation

Valley Foothill Riparian: For Alternatives 2, 3A, and 3B compensatory mitigation is likely to be required for permanent impacts to riparian habitat. Types of compensation that will be considered for the project include but are not limited to bank purchase, in-lieu fees, endowments, and project specific restoration.

WETLANDS AND OTHER WATERS

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB), and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development

Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the [Water Quality section](#) for additional details.

Affected Environment

The South Fork American River Bridge is a jurisdictional “other waters of the U.S”. The river flows from its headwaters in the Crystal Basin near Desolation Wilderness westward through the Sierra Nevada foothills to its confluence at Folsom Lake reservoir. Multiple dams located downriver, including Nimbus and Folsom Dams, have impeded the movement of native fish through the project area. There are no tributaries to the river located in the BSA.

The habitat within the flowing waters of the South Fork American River is characterized as riverine. Although the river is relatively flat, it has a fast flow that consists of glide, run, and riffles. Backwater pooled areas are present upstream and downstream of the project area. The substrate consists of small and large cobbles and boulders, including large cobble bars. No emergent vegetation is growing in the river within the BSA. The riverbanks are highly compacted with low to steep slopes and sparse riparian vegetation. There are no protected fish species in this reach of the river due to the multiple dams located downriver. Maintaining the health of the river is important to the wildlife that depends on it for breeding, feeding, and shelter, and

just as important to the people that use it for recreation and the multitude of other human need and uses.

There are no wetlands within the BSA.

Environmental Consequences

The project will have minor impacts to waters. Most impacts are due to dewatering to create a workspace separate from the live channel.

It is anticipated that Alternatives 3A and 3B will have temporary impacts to waters because activities during construction needed to remove the existing piers, such as dewatering, gaining access to the existing piers, and removing the piers is required. If fill is required during demolition of existing bridge, that area will be quantified and mitigated for. The piers on the new bridge design are not proposed to be located in the flowing waters of the river.

No-Build: No permanent or temporary impacts to waters

Alternative 2: Temporary impacts will be limited to dewatering and are not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts below the ordinary high water mark (OHWM) of the other waters of the U.S. are approximately 0.0005 acres and approximately 25 linear feet (LF). The permanent impacts are due to the extension of the existing pier which is located in the active channel and below the ordinary high water mark.

Alternative 3A: Temporary impacts will be limited to dewatering during removal of the old piers and is not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts to other waters of the U.S would only occur if the removal of the existing piers requires fill below the OHWM. This is not expected to be required.

Alternative 3B: Temporary impacts will be limited to dewatering during removal of the old piers and is not expected to exceed 0.25 acres or 150 linear feet. Potential permanent impacts to other waters of the U.S would only occur if the removal of the existing piers requires fill below the OHWM. This is not expected to be required.

The proposed in-water work for each alternative is not likely to have a cumulative impact to the continued health of the South Fork American River.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 2 may require mitigation for permanent impacts for fill within other waters of the U.S. Types of compensation that will be considered for the project include but are not limited to bank credit purchase, in-lieu fees, endowments, and project specific restoration. Compensatory mitigation is not anticipated for the No-Build alternative and Alternatives 3A and 3B.

PLANT SPECIES

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species in this document for detailed information about these species.

This section of the document discusses all the other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at United States Code 16 (USC), Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), CA Public Resources Code, Sections 2100-21177.

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. No habitat for special status plants was found within the BSA. Surveys conducted during bloom periods further confirmed that no special status plants occur within the project limits.

Environmental Consequences

Because there were no special status plants found within the BSA and due to lack of habitat, there are no environmental consequences to special status plants for the No-Build or any of the build alternatives.

Avoidance, Minimization, and/or Mitigation Measures

Removal of native vegetation shall be confined to the minimal area necessary to facilitate construction activities. Re-vegetation measures shall include erosion control seeding containing native species specific to the area. The seed mix will be weed free and certified to include no invasive species. More information can be found in the Invasive Species section.

ANIMAL SPECIES

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section after this one. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code

- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. Animals are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distribution; and/or (3) the habitat requirements of special-status animals occurring on site. There were no special status animals found within the BSA; however, there is a slight potential that the following species, foothill yellow-legged frog, California red-legged frog, and western pond turtle, may pass through the riparian and riverine habitats within the project area during construction. The California red-legged frog is a federally listed threatened species and state species of concern and will be discussed in the “Threatened and Endangered” Section. This section will also focus on the Migratory Bird Treaty Act (MBTA) and touch on roosting bats.

Foothill yellow-legged frog –

The foothill yellow-legged frog is a federal candidate for listing and a state species of special concern. The species requires slow moving water in streams and rivers with rocky substrate and open sunny banks in forests, chaparral, and woodlands. The nearest known occurrence for this species is approximately 1.5 miles away. Due to the recreation uses in the BSA, the patchy riparian habitat is only marginally suitable for the frog and it is not likely that the species will be present. There were no foothill yellow-legged frogs found during amphibian surveys in the BSA.

Western pond turtle –

Western pond turtle is a state species of concern. The species is thoroughly aquatic and found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches that have an abundance of vegetation and either a rocky or muddy bottom. During reptile surveys there were no turtles observed in the BSA and due to the extensive disturbance in the area, none are expected to occupy the area. To further protect any individuals that may be moving through the project limits, this species will be surveyed for, during pre-construction surveys.

Migratory Birds –

Cliff swallows (*Petrochelidon pyrrhonota*) were observed nesting on the bridge during bird surveys. There were no birds observed nesting in the trees and vegetation

within the BSA. After the preferred alternative is chosen, additional surveys will be conducted on trees and vegetation proposed for removal. Because conditions can change from year to year, pre-construction surveys will be conducted.

Roosting Bats –

Bat surveys were completed in September 2013 and in April 2014, by qualified staff. Mexican free-tailed bats were visually observed roosting in the bridge abutments and joints. During the Sonot-Bat surveys, the following species were recorded feeding in the area, Mexican free-tailed bats, Yuma myotis, hoary bat, silver haired, and Townsend's big-eared bat. There is a slight potential for Yuma myotis to be roosting on the bridge, however, the other three bat species are highly unlikely to be roosting on the bridge due to habitat requirements that are not present.

Environmental Consequences

Foothill yellow-legged frog –

The proposed project would have temporary and permanent impacts to marginally suitable riparian habitat that may be used as dispersal habitat by foothill yellow-legged frog. However, the project will not result in direct and indirect impacts to the species. The proposed project will not result in cumulative impact to the continued existence of the foothill legged frog or its habitat.

Western pond turtle –

The in-water activities of the proposed project may directly or indirectly impact turtles in the unlikely event that they inhabit the flowing water within the BSA.

The No-Build alternative would have no impact on the species.

Alternative 2 is expected to have the most impact as it would result in direct construction (via widening of the piers) in the live channel and will have permanent removal of riverine habitat.

Alternatives 3A and 3B may temporarily displace individuals during dewatering activities for the removal of the old structure out of the active channel. The removal of the structure out of the live channel for these two alternatives could be considered of a net gain of riverine habitat.

The proposed project will not result in cumulative impacts to the continued existence of the Western pond turtle or its habitat.

Migratory Birds –

All build alternatives propose work on the bridge structure which is also nesting habitat for cliff swallows. Construction activities will result in a temporary loss of nesting habitat. Following construction, the birds will be able to re-colonize the bridge.

In addition to loss of nesting habitat on the bridge, migratory birds may be affected due to vegetation removal. Alternative 2 and 3B propose work that would result in permanent impacts to vegetation and trees surrounding the bridge. Alternative 3A may have permanent impacts to a number of trees alongside the highway as well as vegetation and trees surrounding the bridge. There were no other migratory birds seen using the project area during field surveys; therefore, the proposed project is not expected to result in an effect to migratory birds due to removal of vegetation. The proposed project will not result in cumulative impacts to the continued existence of migratory and non-game birds, their occupied nests or habitats.

Roosting Bats –

All alternatives have potential to impact bat species roosting on the bridge as a result of the proposed widening and bridge replacement. The proposed project will not result in cumulative impacts to the continued existence of any bat species or their habitats.

Avoidance, Minimization, and/or Mitigation Measures

Foothill yellow-legged frog –

- Preconstruction amphibian surveys will be completed by a qualified biologist in accordance with the CDFW survey methods for the species.
- After preconstruction surveys are complete, riparian vegetation will be removed by clear and grub method through the work area, which will remove all potential dispersal habitat for the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.

- No compensatory mitigation is required.

Western pond turtle –

Preconstruction surveys for reptiles will be conducted by a qualified biologist and, in accordance with CDFW survey methods for the species, a qualified biologist will be monitoring the BSA as needed throughout construction. During dewatering activities the work will be designated and conducted in a manner that reduces the potential for impacting the turtles.

Migratory Birds –

To avoid impacts to migratory birds nesting on the bridge, the nests shall be removed outside of the nesting period that is from September 1 to March 31.

If construction activities occur during the nesting season for migratory birds, February through August 31, a qualified biologist will survey the project area no more than one week prior to start of construction and prior to vegetation and tree removal. Caltrans may implement preconstruction avoidance measures, like exclusion methods, to prevent birds from nesting on the bridge. When evidence of migratory birds and their occupied nests is discovered and may be adversely affected by construction or vegetation and tree removal, the contractor will be directed to immediately stop work and notify the Resident Engineer and the Environmental Construction Liaison.

Roosting Bats –

Exclusion measures will be required for roosting bats. The time of installation of the exclusion method chosen will depend on the schedule of construction work and roosting habits of each species known to roost on the South Fork American River Bridge. A qualified biologist will be monitoring the BSA as needed throughout construction. Caltrans will review opportunities for including roosting habitat on the new or upgraded facility.

THREATENED AND ENDANGERED SPECIES

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later

amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over

such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff.

California red-legged Frog –

The California red-legged frog is a federally listed threatened species and state species of special concern. The species requires a variety of habitat with aquatic breeding (i.e. pools within streams and creeks and ponds, embedded within a matrix of riparian and upland dispersal habitat). Due to recreation uses in the BSA, the riparian habitat is very disturbed and patchy due to informal trails and human activity and is only marginally suitable for the frog, so it is not likely that the species will be present. During field surveys there were no California red-legged frogs observed in the BSA. Based on a site assessment and habitat evaluation, it was determined that the river is not considered suitable breeding habitat for California red-legged frog because of the swiftness of the flow, the presence of substrate with which the frog is not generally associated, and the lack of in-stream vegetation.

Caltrans is preparing a biological assessment in order to submit to the USFWS requesting concurrence that the project may affect but is not likely to affect California red-legged frog.

Environmental Consequences

California red-legged frog –

There is the potential for permanent and temporary impacts to historic and marginally suitable dispersal habitat. There are no known populations in the vicinity of the BSA. The nearest known sighting is over 8 miles away and is not hydraulically connected to the project area. This project will not result in cumulative impacts to the continued existence of the California red-legged frog, its habitat or designated critical habitat.

FESA determination is anticipated in a Letter of Concurrence for a may affect, but not likely to adversely affect the California legged frog or its habitat based on the rationale that the frog is not likely to be present in the BSA. There is no designated critical habitat located in or near the BSA.

Avoidance, Minimization, and/or Mitigation Measures

California red-legged frog –

- Although unlikely to be present, preconstruction amphibian surveys will be completed by a qualified biologist and in accordance with USFWS survey methods for the species.
- After pre-construction surveys are complete, riparian vegetation will be removed by clear and grub method throughout the work area, which will remove all potential dispersal habitat for the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.

INVASIVE SPECIES

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

A Natural Environment Study (NES) was completed in August 2014 by qualified Caltrans biology staff. Invasive plant species may occur within the study area, but no major infestations of invasive plants were observed in the study area. There were no federal noxious weeds identified within the study area.

Environmental Consequences

None of the species on the California list of invasive species is used by the Department for erosion control or landscaping. All equipment and materials will be inspected for the presence of invasive species.

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas.

CLIMATE CHANGE

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active

approach to dealing with GHG emissions and climate change. Relevant legislation includes the following policies:

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)
- AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley
- Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger)
- Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger)
- Senate Bill 97 (SB 97) Chapter 185, 2007
- Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the

production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

Project Analysis

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.³

Caltrans and its parent agency, the California State Transportation Agency (CalSTA), have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.⁴

The operation of this project would result in low-to-no potential for an increase in operational GHG emissions. The South Fork American River Bridge is in need of a replacement or rehabilitation, as the current conditions of the bridge warrant a seismic retrofit and other repairs and to ultimately bring the bridge up to standard. If the proposed project is not built it jeopardizes the State Route 49 corridor. The new bridge will not increase capacity. However the new bridge will encourage pedestrian and bicycle activity as the new bridge will have 8 foot shoulders with room for bicycles and standard sidewalks achieving a multi-modal bridge for all users; the current bridge has no shoulder and no sidewalks. Without a permanent solution to rehabilitate or replace the bridge, ongoing maintenance would be required to keep the bridge standing.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction

³ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

⁴ Caltrans Climate Action Program is located at the following web address: http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase highway capacity and is not expected to result in additional operational CO₂ emissions. However, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Climate Change Strategies

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)⁵.

Greenhouse Gas Reduction Measures

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the

⁵ http://climatechange.transportation.org/ghg_mitigation/

targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- LED lighting will most likely be incorporated into the project accordingly.
- According to the Caltrans' Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction".

Adaptation Strategies

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency (now known as CalSTA) to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. Caltrans continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

List of Preparers

The following Caltrans North Region staff contributed to the preparation of this Initial Study:

Maggie Ritter, Associate Environmental Planner. Contribution: Environmental Study Coordinator, Community Impact Assessment studies, and Environmental Document Writer

Cassandra Evenson, Associate Environmental Planner (Natural Sciences). Contribution: Natural Environment Study – October 2014

Kathleen Grady, Associate Landscape Architect. Contribution: Visual Impact Assessment – July 2014

William Larson, Associate Environmental Planner (Cultural Resources). Contribution: Historic Property Survey Report and Archaeological Survey Report – August 2014

Gurdeep Bhattal, Hydraulics Branch Engineer. Contribution: Floodplain Hydraulics Study – March 2014

Sean Cross, Transportation Engineer, National Pollutants Discharge Elimination System (NPDES) Coordinator. Contribution: Water Quality Assessment – October 2013

Shalanda Christian, Transportation Engineer. Contribution: Air Quality Study and Noise Study – September 2013

Alicia Beyer, Transportation Engineer, Hazardous Waste Coordinator. Contribution: Initial Site Assessment – December 2012

Appendices List

Appendix A – CEQA Checklist

Appendix B – Title IV Policy Statement

Appendix C – Avoidance, Minimization and/or Mitigation Summary

Appendix D – Feasibility Study

Appendix A – CEQA Checklist

CEQA Environmental Checklist

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This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

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

“Impact Findings” are determined by the July 2014 Visual Impact Assessment (VIA).

II. AGRICULTURE AND FOREST 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” finding is determined by the project’s scope and location setting.

III. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No impact” finding is determined by the September 2013 Air Quality Analysis.

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“Impact findings” are determined by the July 2014 Natural Environment Study (NES), project location, and setting.

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

“Impact Findings” are determined by the August 2014 HPSR/ASR Cultural Study.

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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"/>

“No Impact” findings are determined by project scope, location setting, and conversations with the engineer.

VII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?
- 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"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“Impact Findings” are determined by project location and setting. One-way traffic control will be implemented during construction. To address some hazardous waste materials, the following measures will be applied:

- SSP 7-1.02K(6)(j)(iii), lead compliance plan
- SSP 14-11.07, yellow stripe and pavement markings removal
- SSP 15-1.03B, residue w/lead from paint and thermoplastic.
- SSP 14-11.08, disturbance of existing paint systems on bridges
- SSP 14-11.05, naturally occurring asbestos
- SSP 14-11.09, treated wood waste

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

“Impact Findings” are determined by the March 2014 Floodplain Hydraulic Study and October 2013 Water Quality Assessment and project’s scope and location setting.

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

“No Impact” findings are determined by project scope and location setting. One-way traffic control will be implemented.

XI. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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“No Impact” findings are determined by project scope, location setting, and conversations with the engineer.

XII. NOISE: Would the project result in:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

“Impact Findings” are determined by September 2013 Noise Study, project scope, and location setting. Some pile driving and general construction noise may occur but it is temporary, as it will only occur during construction.

XIII. POPULATION AND HOUSING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing 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"/> |

“No Impact” findings are determined by scope and location.

XIV. 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:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XV. 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? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- 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? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact

“Impact findings” are determined by scope and location. One-way reversible traffic control will be implemented during construction.

XVI. TRANSPORTATION/TRAFFIC: Would the project:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- 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? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- e) Result in inadequate emergency access? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact
- f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? Potentially Significant Impact, Less Than Significant with Mitigation, Less Than Significant Impact, No Impact

“Impact Findings” are determined by June 2014 Traffic Management Plan, project scope, and location setting. One-way traffic control will be implemented during construction.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>

XVIII. 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, substantially 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B – Title IV Policy Statement

DEPARTMENT OF TRANSPORTATION

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*Flex your power!
Be energy efficient!*

March 2013

**NON-DISCRIMINATION
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, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink, appearing to read "Malcolm Dougherty".

MALCOLM DOUGHERTY
Director

Appendix C – Avoidance, Minimization and/or Mitigation Summary

Land Use

Avoidance, Minimization, and Mitigation Measures

To comply with the Streets and Highways Code 84.5, measures have been included in the scope of work as determined during public outreach. Caltrans will implement the following measures:

- Maintain access to river – the legal right to cross State property for river access currently exists, and will be maintained after the project is constructed. The existing maintenance access road, also used by the public to access the river at the southwest corner of the bridge, is proposed to be paved to improve access for maintenance vehicles.
- Paved parking area (adjacent to SR49) – A total of 10 new parallel parking spaces are proposed on the south side of SR 49, west of the bridge. Additionally, a maintenance vehicle pullout is planned for the north side of SR 49, east of the bridge. When not in use by Caltrans maintenance crews, the public will be able to use it for parking.
- Informal parking – The existing informal parking on Lotus Road across from the Sierra Nevada House restaurant will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.). This parking area is outside of the project limits.
- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property and will provide guidance to river users accessing the area around bridge.

Parks and Recreation

Avoidance, Minimization, and Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft at a time) to pass, will be maintained in the water channel to allow for rafting and boating activity.
- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.

- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Community Impacts

Avoidance, Minimization, and/or Mitigation Measures

Ensure the following is adhered to avoid potential impacts:

- During construction, a boat passage opening large enough to allow a boat or raft (or more than one raft at a time) to pass, will be maintained in the water channel to allow for rafting and boating activity.
- During construction, the bridge will have one-way reversible traffic control so vehicles will be able to cross the bridge. Bicycles and pedestrians will be allowed to cross as well. No closures are anticipated.
- *See Traffic and Transportation / Pedestrians and Bicycles Section for more details.*

Relocation

Avoidance, Minimization, and/or Mitigation Measures

Because the project will not require any property relocation, measures to avoid property relocation is met as part of the project. The project will require R/W property acquisition for all three alternatives. The Caltrans R/W department will work with property owners for acquisition in the next phase of the project.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Avoidance, Minimization, and/or Mitigation Measures

Measures to minimize impacts during construction include:

- One-way reversible traffic control in accordance with Standard Plan sheet T13 may be allowed at all times.
- The maximum length of any lane closure shall be limited to 0.8 mile.
- A minimum of one paved traffic lane not less than 11 feet wide shall be open for use by public traffic at all times, and two lanes shall remain open when construction operations are not actively in progress.
- A minimum of 4 foot shoulder shall remain open at all times for pedestrian and bicycle use.

- The use of K-rail is recommended to separate the work zone from the public traffic.
- Work behind k-rail may be performed at any time.
- Consider using a temporary traffic signal to control traffic when the bridge is reduced to one lane open.
- Advance flaggers may be needed in areas where there is inadequate approaching sight.
- When bridge rail is removed, K-rail shall be secured in place prior to allowing traffic on the bridge.
- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- Access to driveways and cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.
- Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.
- Portable changeable message signs will be required in direction of traffic during construction for each lane, shoulder, and bridge closure.
- Work at this location may require the assistance of COZEEP, but probably not a full time presence.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.
- Lane closure charts will have to be developed prior to P&E.

Visual/Aesthetics

Avoidance, Minimization, and Mitigation Measures

Avoidance or minimization measures have been identified and can lessen visual impacts caused by the project. Also, the inclusion of aesthetic features in the project design previously discussed can help generate public acceptance of a project. This section described additional avoidance and/or minimization to address specific visual impacts. These will be designed and implemented with concurrence of the District Landscape Architect.

The following measures to avoid or minimize visual impacts will be incorporated into the project:

- All areas disturbed due to all construction activities, including staging locations and access roads shall be restored to its pre-construction condition upon completion of the project. This can be accomplished by loosening and re-contouring the area's soil before applying erosion control (such as hydro-seed with a native seed mix and erosion control blankets).
- Minimize the removal of and avoid where feasible established trees and vegetation. Where it is possible to save and preserve existing trees (of significant size and maturity), care and caution should be implemented during the construction phase. Environmental Sensitive Area (ESA) fencing shall be installed to demarcate areas where vegetation is being preserved and root systems of trees shall be protected.
- All disturbed areas during each construction season shall utilize BMPs which will include temporary erosion control at the end of each construction season.
- Aesthetic treatments used on this project should consider using similar features and colors that will be consistent with the current project being built at the Marshall Gold Discovery State Historic Park. These elements consist of colored stamped concrete. This work should be completed under the direction of the District's Landscape Architect unit.
- The retaining wall(s), if constructed, shall incorporate designing and aesthetic features into the walls, this will be determined during the design phase; additionally, the wall shall be colored or painted with earthen hues to blend with the natural surrounding environment. This will help reduce glare as well.
- The new bridge alternative should consider a "see through" railing constructed as part of the bridge's deck. This will allow the traveling public to view the river and surrounding landscape.

- Trees and shrubs removed as part of a riparian zone will be replaced as part of the required mitigation (*see Biology Section*). The biologist shall mitigate to ensure that the placement of the replanted trees and shrubs for riparian habitat. This will also meet the recommendation for minimizing visual impacts.

Cultural Resources

Avoidance, Minimization, and Mitigation Measures

It is the department's policy to avoid cultural resources whenever feasible. Further investigation of the resources located within the APE may be necessary if they cannot be avoided by the proposed project. Additional archeological surveys will be necessary if project limits are expanded to include areas outside the current APE limits. In the event that buried archeological materials are encountered during construction, Stipulation XV will be followed. Post Review Discoveries, Section B.1.-3 in the January 2004 *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

Hydrology and Floodplain

Avoidance, Minimization, and Mitigation Measures

The following measures are recommended for any alternative in order to minimize impacts to the floodplain:

- The proposed bridge should have the same number of piers (or less) as the existing bridge. In other words, obstructions to flow in terms of area facing flows should not be greater than the existing.
- The waterway area using either the 100-year event or the "flood of record" water surface elevation as a maximum elevation under the bridge should not be reduced below existing available waterway area.

Water Quality and Stormwater Runoff

Avoidance, Minimization, and/or Mitigation Measures

The following actions are recommended, in order to protect receiving water bodies from potential pollution arising from construction activities and/or operations related to this project:

- 1) If the temporary storage of equipment and material on State property is permitted by the Engineer, all soil disturbance created within the contract limits or at the Contractor's secured area(s), shall be accounted for in the total disturbed soil area (DSA) estimate.
- 2) Caltrans' Storm Water Management Plan (SWMP), Project Planning and Design Guide (PPDG) Section 4, and Evaluation Documentation Form (EDF) provide detailed guidance in determining if a specific project requires the consideration of permanent Treatment BMPs. Line Item BMPs may be required during the Plans Specifications and Estimate (PS&E) phase of the project.
- 3) The project shall adhere to the conditions of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) MS4 Permit (Permit), CAS No. 000003 Order No. 2012-0011-DWQ. As necessary, consult with your NPDES coordinator for additional Permit requirements and guidance.
- 4) Adherence to the compliance requirements of the NPDES General Permit CAS No. 000002 (Order No. 2010-0014-DWQ) for General Construction Activities is required if the DSA is equal to or greater than 1.0 acre. If the total DSA is less than 1.0 acre, a Caltrans approved Water Pollution Control Plan (WPCP) will be required, which specifies the level of temporary pollution control measures for the project.
- 5) Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operations from this project:
 - a. Follow all applicable guidelines and requirements in the 2010 Caltrans Standard Specifications (2010 CSS), Section 13, regarding water pollution control and general specifications for preventing, controlling, and abating water pollution in streams, waterways, and other bodies of water.
 - b. Consideration should be given to 2010 CSS, Section 13-4 (Job Site Management), to control potential sources of water pollution before it encounters any storm water system or watercourse. It requires the Contractor to control material pollution, manage waste, and non-storm water at the construction site.
 - c. The Contractor prepared WPCP or SWPPP (whichever is applicable for the project) shall incorporate appropriate Temporary Construction Site BMPs to implement effective handling, storage, use and disposal practices during construction activities.

- d. Shoulder backing areas should be stabilized by Temporary Construction Site BMPs, or rolled and compacted in place, by the end of each day and prior to the onset of any precipitation.
 - e. Existing drainage facilities should be identified and protected by the application of appropriate Construction Site BMPs.
 - f. Attention should be given to 2010 CSS, Section 13-4.03D(3), Concrete Waste, when pipe lining operations involve annular space grouting.
 - g. Attention should be given to 2010 CSS, Section 13-4.01B, Submittals, before dewatering operations commence.
- 6) Refer to the State Water Resources Control Board, Water Quality Permit Order No. 2003-0003-DWQ, for specific requirements relating to low threat discharges to land, where and when applicable, for proposed dewatering operations. A waiver by the Central Valley Regional Water Quality Control Board (Regional Board) can be utilized if the following conditions are met for low threat discharges to land (Anne Olson, 10/24/12):
- 1) Waiver (No Report of Waste Discharge (RWD) / No fee): no known existing groundwater pollution; less than three weeks duration; and less than 10,000 gpd.
 - 2) Waiver (RWD, fee, and Notice of Applicability (NOA) required): no known existing groundwater pollution; less than three weeks duration; and up to 100,000 gpd (we want to make sure that they have enough land committed and good BMPs to contain the water).
 - 3) Low Threat General Waste Discharge Requirements (RWD, fee and NOA required): almost everything else.
- 7) Refer to the Regional Board Permit General Order No. R5-2008-0081, for specific requirements relating to low threat discharges to surface water, where and when applicable, and for proposed dewatering operations. Discharges covered by this General Order, are either 4 months less in duration, or have an average dry weather flow of less than 0.25 million gallons per day.
- 8) Batch plants and/or rock crushing activities within Caltrans right-of-way (ROW) will require the preparation of an Air Space Lease Agreement prior to mobilization. The Lessee shall obtain an Industrial Storm Water General Permit Order 97-03-DWQ (General Industrial Permit) from the State Water Resource Control Board (SWRCB). The Lessee

shall submit a copy of the Notice of Intent (NOI) to comply with the terms of the General Industrial Permit, a copy of the receipt letter with the Waste Discharge Identification (WDID) Number from the SWRCB, an approved Storm Water Pollution Prevention Plan (SWPPP), and a monitoring plan when filing for a Caltrans Encroachment Permit. The Lessee shall submit any amendments to the SWPPP, copies of any sampling/monitoring results, a copy of the annual report, and any reporting requirements covered by the General Industrial Permit. Batch plant or rock crushing activities outside of Caltrans ROW will require additional coordination.

- 9) Caltrans NPDES Office Staff may participate in early project design consultation with the Regional Board if the project entails one or more acres of DSA.

BIOLOGICAL ENVIRONMENT

Natural Communities

In order to avoid and minimize potential impacts to the sensitive natural communities, the removal of native vegetation, including oak trees and riparian habitat, will be confined to the minimal area necessary to facilitate construction activities. All disturbed soil areas will be restored to their existing condition, to the extent possible.

Measures that will be implemented to avoid or minimize impacts to the natural communities of the project area include ESA fencing, biological monitoring, and pre-construction biological surveys.

Compensatory Mitigation

Valley Foothill Riparian: For Alternatives 2, 3A, and 3B compensatory mitigation is likely to be required for permanent impacts to riparian habitat. Types of compensation that will be considered for the project include but are not limited to bank purchase, in-lieu fees, endowments, and project specific restoration.

Wetlands and Other Waters of the U.S.

Avoidance, Minimization, and/or Mitigation Measures

Alternative 2 may require mitigation for permanent impacts for fill within other waters of the U.S. Types of compensation that will be considered for the project include but are not limited to bank credit purchase, in-lieu fees, endowments, and project specific restoration. Compensatory mitigation is not anticipated for the No-Build alternative and Alternatives 3A and 3B.

Plant Species

Avoidance, Minimization, and/or Mitigation Measures

Removal of native vegetation shall be confined to the minimal area necessary to facilitate construction activities. Re-vegetation measures shall include erosion control seeding containing native species specific to the area. The seed mix will be weed free and certified to include no invasive species. *More information can be found in the Invasive Species section.*

Animal Species

Avoidance, Minimization, and/or Mitigation Measures

Foothill yellow-legged frog –

- Preconstruction amphibian surveys will be completed by a qualified biologist in accordance with the CDFW survey methods for the species.
- After preconstruction surveys are complete, riparian vegetation will be removed by clear and grub method through the work area, which will remove all potential dispersal habitat for the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.
- No compensatory mitigation is required.

Western pond turtle –

Preconstruction surveys for reptiles will be conducted by a qualified biologist and in accordance with CDFW survey methods for the species a qualified biologist will be monitoring the BSA as needed throughout construction. During dewatering activities the work will be designated and conducted in a manner that reduces the potential for impacting the turtles.

Migratory Birds –

To avoid impacts to migratory birds nesting on the bridge, the nests shall be removed outside of the nesting period that is from September 1 to March 31.

If construction activities occur during the nesting season for migratory birds, February through August 31, a qualified biologist will survey the project area no more than one week prior to start of construction and prior to vegetation and tree removal. Caltrans may implement preconstruction avoidance measures, like exclusion methods, to prevent birds from nesting on the bridge. When evidence of migratory birds and their occupied nests is discovered and may be

adversely affected by construction or vegetation and tree removal, the contractor will be directed to immediately stop work and notify the Resident Engineer and the Environmental Construction Liaison.

Roosting Bats –

Exclusion measures will be required for roosting bats. The time of installation of the exclusion method chosen will depend on the schedule of construction work and roosting habits of each species known to roost on the South Fork American River Bridge. A qualified biologist will be monitoring the BSA as needed throughout construction. Caltrans will review opportunities for including roosting habitat on the new or upgraded facility.

Threatened and Endangered Species

Avoidance, Minimization, and/or Mitigation Measures

California red-legged frog –

- Although unlikely to be present, preconstruction amphibian surveys will be completed by a qualified biologist and in accordance with USFWS survey methods for the species.
- After pre-construction surveys are complete, riparian vegetation will be removed by clear and grub method throughout the work area, which will remove all potential dispersal habitat from the frog during construction.
- A qualified biologist will be monitoring the BSA as needed throughout construction.

Invasive Species

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

Greenhouse Gas Reduction Measures

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

- LED lighting will most likely be incorporated into the project accordingly.
- According to the Caltrans' Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.
- Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction".

Appendix D – Feasibility Study

Report on Feasibility of Providing Access to Navigable Rivers

Introduction

Since two of the three viable alternatives involve a new structure over navigable waters, studies relating to river access were completed. Issues considered included extent of public use for recreational purposes, other access options, environmental impacts, right of way issues, construction and maintenance costs, and pedestrian accessibility. A discussion of these topics and a summary of proposals is contained in this section, while a listing of all options considered and a corresponding map is included as an attachment.

Public Input

A strong interest in developing river access had been noted in earlier phases of project development, so the project development team opted to make contact with interested parties regarding a possible meeting on the topic. A meeting was held on August 29, 2013 and was attended by Caltrans personnel, county personnel, a Chamber of Commerce representative, and two members of the American Whitewater recreational group. The purpose of the meeting was to gather information about current river access for recreational users. Comments regarding river access were also received following a public meeting held for the project on May 14, 2013.

Identified Issues of Public Concern

From meetings held and comments received about the project and river access, the following topics of concern were identified:

- a) Narrow existing bridge restricts access
- b) Retention of existing access on all corners of the bridge
- c) Improvement of adjacent trail system
- d) Parking
- e) Restrooms and trash cans

All identified topics of concern were considered in the study, and study conclusions can be viewed in the attachments.

Background

- a) Extent of Public Use for Recreational Purposes

The Lotus-Coloma area is very heavily utilized for recreational purposes including camping, river based activities, concerts and festivals, visits to the Marshall Gold Discovery State Historic Park, tourism/sightseeing and other outdoor activities. According to one source, the South Fork American River in the vicinity of the project is the most heavily rafted segment of river in the state. As such, the local community and water based recreational organizations have been very interested in river access issues and this project in general. Information

gathered suggests that the peak visitation months run from mid-June to mid-August.

b) Other Access Options

A total of 18 river access options were identified in the vicinity of the project (within 2 ½ miles). These include both government and private facilities, some being fee based, and others at no cost. A summary is provided here, with further details and a map provided in the appendix.

- 7 private river rafting outfitters
- 4 private camping facilities
- 2 government facilities (fee based)
- 3 government facilities (no cost)
- 2 parking areas

Future improvements to river access were also identified during studies. These include potential development of the Bureau of Land Management parcel just south of the U.S. Post Office near the bridge, potential construction of a park and ride facility near the corner of Lotus Road and Route 49, and the loosening of day use restrictions on private campgrounds and other businesses.

c) Right of Way Issues

Route 49 in the vicinity of the project is a conventional highway without access control restrictions. The right of way at the bridge is 200' on each side of the existing centerline (400' width total), and will not be reduced due to this project. The lack of access control means the public has the legal right to enter and cross the state right of way to access the river.

Conclusions

The project team determined that legal river access is currently afforded to the public through the State right of way that bounds the existing bridge, and extensive river access opportunities, both government and private owned, exist in the vicinity. However, given that the river in the project vicinity is a heavily used recreational destination, it is prudent to make reasonable upgrades to enhance the existing river access.

After gathering and analyzing available information, meeting with interested parties, conducting several internal focus meetings, and consulting with executive staff, it is proposed to make the access improvements identified below. These improvements can be made with minimal cost and environmental impacts, and require no additional right of way. It is proposed to include these access and access related improvements, even if a rehabilitation alternative is selected:

- Wider sidewalks and shoulders on bridge – The inclusion of standard sidewalks and shoulders on the new or rehabilitated structure will enhance river access by allowing pedestrian users to easily cross the structure.

- Maintain access to river – Route 49 in the project vicinity is not an access controlled facility. The legal right to cross State property for river access currently exists, and will be maintained at the conclusion of this project. An existing maintenance access road at the southwest corner of the bridge is proposed to be paved to improve access for maintenance, and in doing so, will provide improved access for recreational river users.
- Paved parking area (near highway) – A total of 10 parallel parking spaces are proposed to be constructed on the south side of Route 49 on the west side of the bridge. Their location is dictated by design standards for sight distance. Additionally, a maintenance vehicle pullout is planned for the north side of Route 49 on the east side of the bridge. When not in use by maintenance forces, the public can use it for parking.
- Informal parking – The existing informal parking on Lotus Road across from Sierra House will not be changed as part of this project. Additionally, the project specifications will include a condition that the contractor cannot use the area for construction purposes (staging, storage, etc.).
- Demarcate right of way lines – Signs will be posted to identify the limits of state right of way. This will help prevent trespassing onto private property by providing guidance to river users accessing the area around the bridge.

Constructing the access improvements identified above would have the following impacts:

- Environmental Impacts
Impacts associated with river access improvement are expected to be minimal since recreational river access already exists around all four corners of the existing bridge, and the improvements proposed do not have significant impacts. For further information, refer to the attached environmental document.
- Construction and Maintenance Costs
Wider shoulders and sidewalks are included in the project to meet current design standards, so no additional cost is associated with them in regards to improving river access. Similarly, paving the maintenance road is included in the project, so no additional cost is associated with it as well, and maintaining the current access control status (no restrictions to access) has no cost.

The additional initial cost for paved parking spots is minor and includes additional asphalt concrete, base material, striping, signing and drainage work, and ongoing maintenance costs should be minor.

Maintaining the current informal parking across from Sierra House has no construction or maintenance costs.

Signs marking the right of way will have minimal initial costs, and likely to have low maintenance costs (vandalism excepted).

- Pedestrian Accessibility

This project will improve accessibility to the river for the general public. This is a result of the improvements identified above, and due to the removal of vegetation from bridge abutments fills. Inclusion of a developed ADA compliant trail into the river floodplain was considered, but not deemed practical or warranted given there are no developed facilities in the floodplain. If a public boat ramp was being included in the project (see next section), providing an ADA compliant trail would have been warranted.

Public Boat Ramps

Consultations were made with the following State and Federal agencies regarding providing an access ramp (constructed by Caltrans) to a public boat launching area adjacent to State right of way (constructed by others). None of the agencies indicated they had any plans to construct a public boat launching area at this time.

a. United States

- Army Corps of Engineers
- Fish and Wildlife Service
- Department of the Interior Bureau of Reclamation
- National Marine Fisheries Service
- Forest Service
- Department of the Interior Bureau of Land Management

b. California

- Department of Fish and Wildlife
- State Lands Commission
- Department of Parks and Recreation
- Division of Boating and Waterways

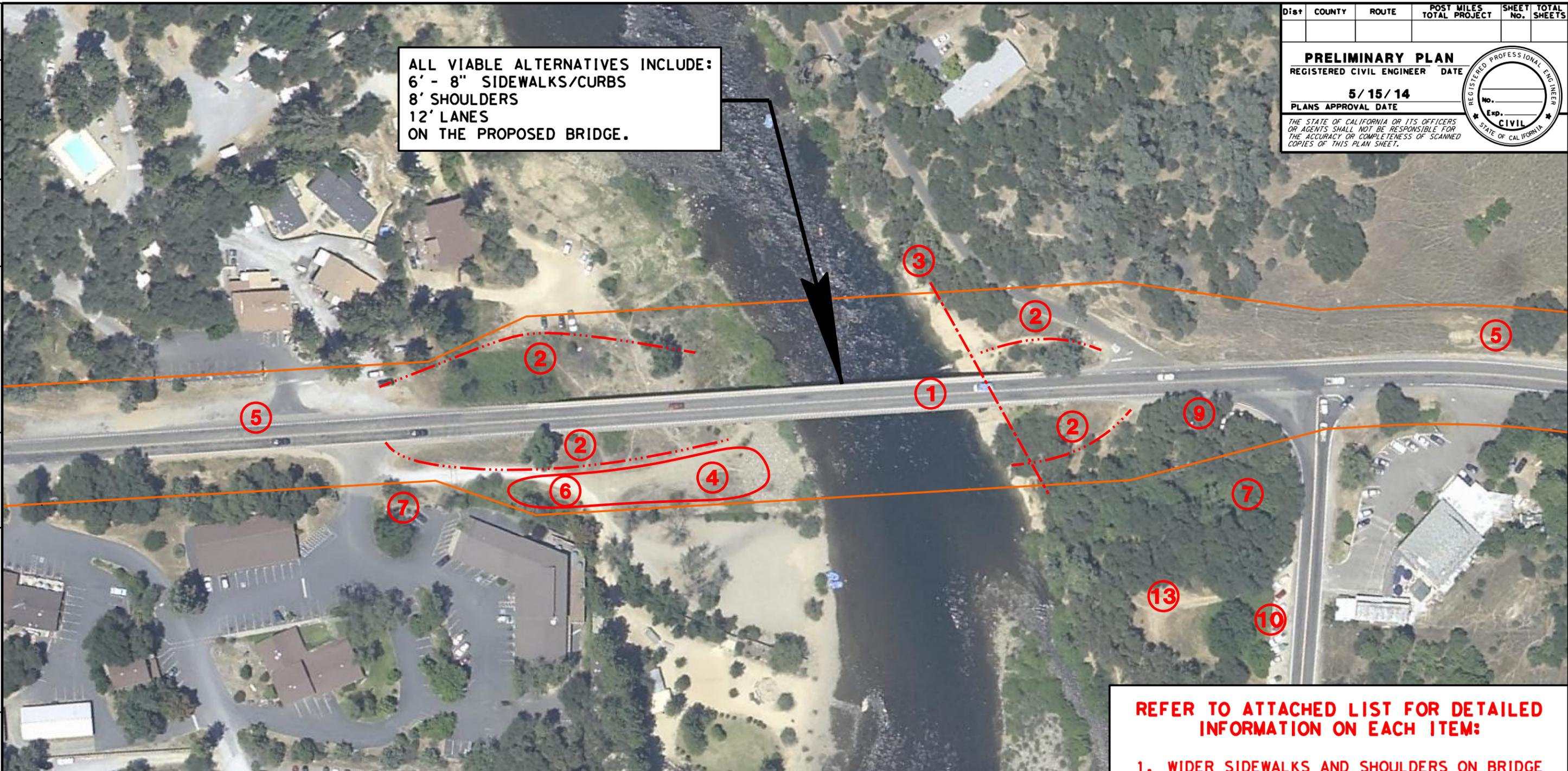
ALL VIABLE ALTERNATIVES INCLUDE:
 6' - 8" SIDEWALKS/CURBS
 8' SHOULDERS
 12' LANES
 ON THE PROPOSED BRIDGE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

PRELIMINARY PLAN
 REGISTERED CIVIL ENGINEER DATE
5/15/14
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 No. _____
 Exp. _____
 CIVIL
 STATE OF CALIFORNIA



- REFER TO ATTACHED LIST FOR DETAILED INFORMATION ON EACH ITEM:**
1. WIDER SIDEWALKS AND SHOULDERS ON BRIDGE
 2. ACCESS TO THE RIVER
 3. IMPROVE LOCAL TRAIL SYSTEM
 4. UNPAVED PARKING AREA (IN THE RIVERBED)
 5. PAVED PARKING AREA (NEAR HIGHWAY)
 6. SEASONAL PARKING (CLEAR OF HIGH FLOWS)
 7. PUBLIC RESTROOMS
 8. TRASH CANS (LOCATIONS NOT SHOWN)
 9. INFORMAL PARKING
 10. INFORMAL PARKING
 11. N/A
 12. REST STOP (NOT SHOWN)
 13. PARK AND RIDE LOT
 14. DEMARCATATE R/W LINES (NOT SHOWN)

ACCESS IMPROVEMENTS STUDY MAP

SOUTH FORK AMERICAN RIVER BRIDGE PROJECT

— EXISTING RIGHT OF WAY (APPROXIMATE)



NOTE: THIS PHOTOGRAPH DOES NOT SHOW HIGHWAY IMPROVEMENTS COMPLETED IN 2006.

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR BY
		CHECKED BY	DATE REVISED

LAST REVISION: DATE PLOTTED => \$DATE
 00-00-00 TIME PLOTTED => \$TIME

CURRENT PROPOSALS BASED ON ACCESS IMPROVEMENTS STUDY

Updated 5/15/14

See other tab for information on all options considered.

No. (from Studies tab)	Item	Proposal	Additional Information
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Construct standard sidewalks and shoulders on the bridge and road.	Standard sidewalks and shoulders will be included in the project. The specific locations are dependant on the alternative being considered. Generally speaking, standard shoulders will be included in the whole project. Standard sidewalks will be included on the bridge and bridge approaches, and along any reconstructed/widened roadway west of the bridge.
2 (A)	ACCESS TO RIVER	Maintain existing level of "freedom" to access the river from all corners of the bridge.	At the project conclusion, there will be the same level of access at all corners of the bridge as there was prior to the project. This includes the right for the public to legally cross the State right of way and no installation of fencing to prevent such access.
2 (B)	ACCESS TO RIVER	Pave the existing maintenance road on the southwest corner of the bridge.*	Place HMA on the existing gravel road to provide a stable surface for maintenance vehicles, and in doing so, also provide a benefit for people accessing the river on the southwest corner.
5 (A)	PAVED PARKING AREA (NEAR HIGHWAY)	Provide parallel parking spaces on the south side of Route 49 west of the bridge.	A total of 10 parallel parking spaces will be provided along Route 49. Parking was placed as close to the river as possible while still meeting design standards such as shoulder width, sight distance, etc.
5 (B)	PAVED PARKING AREA (NEAR HIGHWAY)	Construct a maintenance vehicle pullout on the north side of Route 49 just east of Lotus Road.*	Construct an MVP for use by maintenance vehicles, and in doing so, also provide a parking opportunity for people accessing the river.
10	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House).	The project will not permanently affect the informal parking area, and the project specifications can include a clause that prevents the contractor from staging/occupying the area during construction.
14	DEMARCATÉ R/W LINES	Provide signs along the State R/W line near the river.	Signs will be placed along the R/W line to identify limits of public property.

* These improvements included for maintenance purposes provide side benefits for river access.

SUMMARY OF STUDIES FOR ACCESS IMPROVEMENTS STUDY

Updated 5/14/14

Information contained here provided by Environmental, and was originally obtained from the public (individuals and organized groups) and external agencies, and then considered by the PDT group.

No.	Item	Description	Request/Comment Source	Status	Apparent Relevance to Access Issue	Notes
1	WIDER SIDEWALKS AND SHOULDERS ON BRIDGE	Put sidewalks (ped/bike access) across the bridge.	30 + comments locals/public	Include	Moderate	New bridge includes standard width sidewalks and shoulders.
2	ACCESS TO RIVER	Access down to the river: either ADA compliant or not; but a trail down to the river, keeping the existing public use.	(information not provided)	Include (Partial)	Significant	Providing a designated path may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The public currently accesses the river informally at all "corners" of the bridge. Informal access, equal to existing access, will be restored after project completion (ie, there are no restrictions on the public crossing over State R/W in this area to reach the river). Approximate existing pathways shown on provided mapping. It's not clear at this time where the most appropriate location would be to place a formal pathway(s).
3	IMPROVE LOCAL TRAIL SYSTEM	Connect the walking trail from Hennington-Lotus Park to Marshall Gold Discovery Sate Park.	4 comments in HLP concept plan, CT public workshop, and focus meeting with locals	Rejected	Moderate	Information on the existing County trail system is not available at this time. A guess on pathway routing through State right of way is shown on attached mapping. Providing a designated path may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal path that is routinely submerged is unknown. The comments weren't clear on whether we should do additional work outside our right of way to construct the pathway, or work would be limited to spanning across our right of way (line to line) to connect to existing (or planned) County pathway.
4	UNPAVED PARKING AREA (IN THE RIVERBED)	Provide a <i>gravel</i> parking lot in the gravel area at the SW side of the bridge (riverbed). Place boulders to block cars from going down to shore.	public/locals	Rejected	Moderate	Providing a designated parking area may be complicated due to ADA requirements, which may or may not apply in the riverbed. Maintenance needs for upkeep of a formal parking that is routinely submerged is unknown. In times past, this area was open to vehicle access, but was eventually closed off. It is our understanding that problems with garbage and maintenance of the area prompted closure. There are reports of vehicles accidentally going into the river as well.
5	PAVED PARKING AREA (NEAR HIGHWAY)	Provide a <i>hardscaped</i> ADA-compliant parking (parking infrastructure) area for public access down to river.	public/locals	Include	Moderate	Depending on the alternative selected, area could be available to create paved parking adjacent to Route 49 westerly of the new bridge. Even though 8' shoulders are planned for this project, sight distance and bike lane issues will generally preclude on street parking. Other issues include: increased maintenance by CT forces and difficulty meeting ADA requirements (handicapped spaces, design standards, etc.)
6	SEASONAL PARKING AREA (CLEAR OF HIGH FLOWS)	Provide a <i>seasonal</i> parking area on SW side of bridge in summer season to stay out of high flows during the winter.	public/locals	Rejected	Moderate	This item ties in with Item 4 above. A County employee noted that kayakers like to use the river in the winter, so he suggested having parking that would not be subject to closure except during abnormally large river flows. Same issues as Item 4 above. Definition of "high flows" would be needed for further studies.
7	PUBLIC RESTROOMS	Provide bathrooms.	public/locals: this went with the idea of "parking infrastructure"	Rejected	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers. A possible location is shown the mapping, though R/W would need to be obtained to place at this location.
8	TRASH CANS	Provide trashcans.	public/locals: local business owner and community member volunteered to maintain the trashcans	Rejected	Minimal	Placing trash cans (presumably affixed to a post) is feasible. An agreement could be made with a local "entity" to maintain them, with a penalty of permanent removal if maintenance becomes an issue (ie, CT Maintenance is having to clean/empty them due to a lack of upkeep by responsible entity). This item is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers.
9	INFORMAL PARKING	Keep informal parking area on SE side of bridge; most local folks will park there when accessing river from ARB.	public/locals	Rejected	Moderate	Inclusion of sidewalk on the southeast corner of the bridge, combined with roadway widening as part of this project, eliminates reasonable parking value of this area. Some usage may be retained under the seismic retrofit and widening alternative. Replacement parking is being considered; see Item 5 above.
10*	INFORMAL PARKING	Keep the informal parking area on Lotus Road (across from Sierra Nevada House) as it is a popular area to park.	public/locals	Include	Moderate	There are no project plans at this time that affect the noted area; it is out of the planned limits of construction. The contractor might find it a desirable location to stage work, but it could be specified in the contract that it cannot be used by the contractor for any reason. This restriction could be limited to peak river use seasons in order to make work easier for contractor if they were to find that area desirable to use.
11	REQUEST FOR DETAILED STUDIES AND MULTIPLE PROJECT PROPOSALS	Request a stand alone feasibility study for river access "with access alternatives".	American White Water Association: blog and letter to CT	Rejected	Varies, depending on Item	Feasibility of providing access is being considered as part of the project development process. However, a separate report is not being prepared; conclusions of studies will be contained in the project approval document (Project Report).
12	REST STOP	A rest stop.	(detailed information not provided)	Rejected	Minimal	Limited consideration of this item. It is outside the scope of the project, as well as our interpretation of State laws regarding providing "access" to rivers.
13	PARK AND RIDE	Construct a park and ride facility near the bridge replacement project.	River Access PDT Group	Rejected	Moderate	The PM made contact with County regarding this issue. Any PNR facility would be planned and constructed by another agency (not Caltrans). Along Lotus Road, south of Rte 49, and adjacent to the river, there could potentially be a good park and ride location which would also serve as parking for persons accessing the river.
14	DEMARCAT R/W LINES	Provide signage indicating location of State right of way.	River Access PDT Group	Include	Significant	The public may not be aware of property line locations, and as a result, may be hesitant to access the river for fear of trespassing. Posting signage would alleviate this issue.

* Environmental suggested removing this item from this list since they will address it in the Environmental document.