Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

For U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Sacramento, CA 95814

☒ County Clerk
County of: Tehama
Address: 255 Washington Street
Red Bluff, CA 96080

From:

Public Agency: Tehama County Public Works
Address: 9380 San Benito Avenue
Gerber, CA 96035
Contact: Kevin Rosser
Phone: (530) 385-1462 x 3051

Lead Agency (if different from above):

Address:

Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2007082085

Project Title: Jellys Ferry Road Bridge Replacement Project

Project Location (include county): Jellys Ferry Road Bridge over Sacramento River in Tehama County

Project Description:

The bridge is 58 years old and is classified as seismically deficient and functionally obsolete. The bridge has subsequently been slated for replacement under the Highway Bridge Program (HBP) and Local Seismic Safety Retrofit Program (LSSRP). New right-of-way would be required from the Bureau of Land Management (BLM) in order to construct the proposed project. Bridge foundations would be located west (upstream) of the existing bridge and would consist of steel "H" piles or cast-in-drilled-holes (CIDH) concrete piles.

This is to advise that the Tehama County Board of Supervisors has approved the above described project on
☒ Lead Agency or ☐ Responsible Agency

April 22, 2008 (Date) and has made the following determinations regarding the above described project:

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☒ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at: Tehama County Public Works, Gerber, CA 96035

Signature (Public Agency) Kevin Rosser Title Environmental Planner

Date _____ Date Received for filing at OPR _____

FILED
APR 25 2008
BEVERLY ROSS
TEHAMA COUNTY CLERK & RECORDER
By _____

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2005

177

FINAL

RESPONSE TO COMMENTS

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JELLYS FERRY ROAD BRIDGE REPLACEMENT PROJECT

TEHAMA COUNTY, CALIFORNIA

LSA

November 2007

TABLE OF CONTENTS

ENVIRONMENTAL DOCUMENTATION 1
INTRODUCTION 1
ENVIRONMENTAL REVIEW DOCUMENTATION 1
PUBLIC COMMENTS 1
RESPONSE TO COMMENTS 2
STATE CLEARINGHOUSE (SEPTEMBER 13, 2007) 3
DEPARTMENT OF WATER RESOURCES (AUGUST 22, 2007) 5
CALIFORNIA STATE LANDS COMMISSION (SEPTEMBER 14, 2007) 7
NATIVE AMERICAN HERITAGE COMMISSION (AUGUST 17, 2007) 10
SACRAMENTO RIVER PRESERVATION TRUST (SEPTEMBER 14, 2007) 14
CHARLES T. SCHULTZ (SEPTEMBER 13, 2007) 17

ENVIRONMENTAL DOCUMENTATION

INTRODUCTION

LSA Associates, Inc. has prepared the following materials for the Jelly's Ferry Bridge Replacement project in the County of Tehama. These materials are intended for the use by the County and other agencies in their assessment of the project as it pertains to the California Environmental Quality Act (CEQA). The CEQA lead agency for the proposed project is the County of Tehama.

ENVIRONMENTAL REVIEW DOCUMENTATION

The proposed Jelly's Ferry Bridge Replacement project constitutes a "project" in accordance with CEQA. Prior to approving the project, the County of Tehama is proposing to adopt the Mitigated Negative Declaration to complete the environmental review process.

This Mitigated Negative Declaration was prepared as the environmental documentation in anticipation of determining that all potentially significant impacts from implementing the project improvements can be mitigated to levels less than significant. Accordingly, a Mitigated Negative Declaration is being considered to provide environmental review and clearance for the project. Information included in this document is intended to clarify the areas of potential environmental concern, while estimating the potential impacts of the project on the environment.

A Draft Initial Study/Mitigated Negative Declaration (June 2007) was distributed for public review on August 13, 2007 a 30-day review period ending on September 14, 2007. Comments were received during the review period and are addressed in this document. Therefore, this Final Mitigated Negative Declaration reflects the final environmental documentation for the Jelly's Ferry Bridge Replacement project.

PUBLIC COMMENTS

The County of Tehama circulated the Draft IS/MND for review to relevant local, County, State, and federal agencies; the distribution list is attached. Correspondence for this project follows:

- State Clearinghouse (September 13, 2007)
- Department of Water Resources (August 22, 2007)
- California State Lands Commission (September 14, 2007)
- Native American Heritage Commission (August 17, 2007)
- Sacramento River Preservation Trust (Email September 14, 2007)
- Charles T. Schultz (September 13, 2007)

A Draft Final Mitigated Negative Declaration (Draft FMND) was prepared and distributed to agencies/parties commenting on the Draft IS/MND.

RESPONSE TO COMMENTS

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

RECEIVED
SEP 18 2007
TEHAMA COUNTY
PUBLIC WORKS

September 13, 2007

Kevin Rosser
Tehama County Public Works Department
9380 San Benito Avenue
Gerber, CA 96035

Subject: Jellys Ferry Road Bridge Replacement Project
SCH#: 2007082085

Dear Kevin Rosser:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 12, 2007, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH#	2007082085
Project Title	Jellys Ferry Road Bridge Replacement Project
Lead Agency	Tehama County Public Works
Type	MN Mitigated Negative Declaration
Description	D The bridge is 58 years old and is classified as functionally obsolete. The bridge has consequently been slated for replacement under the Highway Bridge Program (HBP) and Local Seismic Safety Retrofit Program (LSSRP). New right-of-way would be required from the Bureau of Land Management (BLM) in order to construct the proposed project. Bridge foundations would be located west (upstream) of the existing bridge and would consist of steel "H" piles or cast-in-drilled-holes (CIDH) concrete piles. These footings would support the construction of a new two-lane undivided bridge spanning approximately 1,000 to 1,200 feet. The bridge would include 24-foot lanes and 4-foot shoulders.

Lead Agency Contact

Name	Kevin Rosser
Agency	Tehama County Public Works Department
Phone	(530) 385-1462 ext. 3051 *Fax*
email	
Address	9380 San Benito Avenue
City	Gerber *State* CA *Zip* 96035

Project Location

County	Tehama
City	
Region	
Cross Streets	Jellys Ferry
Parcel No.	9-150-34, 35, 36; 9-160-01; 9-120-23
Township	28N *Range* 3W *Section* 3 *Base* M

Proximity to:

Highways	5
Airports	
Railways	
Waterways	Sacramento River
Schools	
Land Use	Cropland, Grazing, Recreation

Project Issues	Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Geologic/Seismic; Noise; Recreation/Parks; Soil Erosion/Compaction/Grading; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian
Reviewing Agencies	Resources Agency; Regional Water Quality Control Bd., Region 5 (Redding); Department of Parks and Recreation; Native American Heritage Commission; Reclamation Board; Office of Historic Preservation; Department of Fish and Game, Region 1; Department of Water Resources; California Highway Patrol; Caltrans, District 2; State Lands Commission
Date Received	08/14/2007 *Start of Review* 08/14/2007 *End of Review* 09/12/2007

Note: Blanks in data fields result from insufficient information provided by lead agency.

STATE OF CALIFORNIA — THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

RECEIVED
AUG 3 0 2007
STATE CLEARING HOUSE

clear
9/12/07
e

August 22, 2007

Kevin Rosser
Tehama County Public Works Department
9380 San Benito Avenue
Gerber, California 96035

Jellys Ferry Road Bridge Replacement Project
State Clearinghouse (SCH) Number: 2007082085

The project corresponding to the subject SCH identification number has come to our attention. The limited project description suggests your project may be an encroachment on the State Adopted Plan of Flood Control. You may refer to the California Code of Regulations, Title 23 and Designated Floodway maps at http://recbd.ca.gov/. Please be advised that your county office also has copies of the Board's designated floodways for your review. If indeed your project encroaches on an adopted food control plan, you will need to obtain an encroachment permit from the Reclamation Board prior to initiating any activities. The attached Fact Sheet explains the permitting process. Please note that the permitting process may take as much as 45 to 60 days to process. Also note that a condition of the permit requires the securing all of the appropriate additional permits before initiating work. This information is provided so that you may plan accordingly. DWR-1

If after careful evaluation, it is your assessment that your project is not within the authority of the Reclamation Board, you may disregard this notice. For further information, please contact me at (916) 574-1249.

Sincerely,

Christopher Huitt
Staff Environmental Scientist
Floodway Protection Section

Enclosure

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Response to Comments
Department of Water Resources (August 22, 2007)

DWR-1 Comment noted. If the proposed project does encroach on the State Adopted Plan of Flood Control, the proper permits will be obtained from the Reclamation Board prior to initiating any activities.

STATE OF CALIFORNIA — ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

PAUL D. THAYER, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
Relay Service From TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1814**
Contact FAX: **(916) 574-1885**

RECEIVED
SEP 17 2007
TEHAMA COUNTY
PUBLIC WORKS

September 14, 2007

File Ref: SCH# 2007082085

Tehama County Public Works Department
Attn: Kevin Rosser
9380 San Benito Avenue
Gerber, CA 96035

Subject: Jelly's Ferry Road Bridge Replacement Project Mitigated Negative Declaration

Dear Mr. Rosser:

General Comments:

The State acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all the people of the State for statewide Public Trust purposes which include waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. The landward boundaries of the State's sovereign interests in areas that are subject to tidal action are generally based upon the ordinary high water marks of these waterways as they last naturally existed. CSLC-1
In non-tidal navigable waterways, the State holds a fee ownership in the bed of the waterways between the two ordinary low water marks as they last naturally existed. The entire non-tidal navigable waterway between the ordinary high water marks is subject to the Public Trust Easement. Both the easement and fee-owned lands are under the jurisdiction of the State Lands Commission. The locations of the ordinary high and low water marks are often related to the last natural conditions of the river, and may not be apparent from a present day site inspection.

The proposed project involves the bed of the Sacramento River which is State-owned sovereign lands under the jurisdiction of the State Lands Commission. The Commission and the County of Tehama entered into a Lease on March 23, 1950, to authorize the General Lease – Public Agency Use for a highway bridge crossing known as Jelly's Ferry Road Bridge; Lease No. PRC 504.9. Therefore, an amendment to the existing Lease or a new Lease will be required for the proposed demolition of the existing Jelly's Ferry Road Bridge and the construction of the new Jelly's Ferry Road Bridge.

Specific Comments:

Part VIII (Hydrology and Water Quality) indicates that gravel will be removed from the riverbed. This could potentially impact spawning habitat for various fish species described in Part IV (Biological Resources). However, potential impacts were not discussed. Part IV (Biological Resources) should include an analysis of the impacts of gravel removal on the spawning grounds of special status fish species. CSLC-2

Mitigation Measures BIO-9 and BIO-11 (Sensitive natural communities and Upland vegetation) state that "impacts to vegetation would be reduced to less than significant levels through the implementation of revegetation activities, erosion control, control of hazardous materials, and weed control proposed as part of the project." However, the proposed revegetation activities, erosion control, control of hazardous materials, and weed control measures are not described or discussed in the document, so it cannot be determined whether these measures are sufficient to reduce the impacts to less-than-significant. CSLC-3

Mitigation Measure BIO-10 (Trees) needs a more specific monitoring plan in order to ensure that this measure is effective in the long term. The measure should outline criteria for success in replacing trees and the timeframes in which this success should be achieved. CSLC-4

Please contact Michelle Clark, Public Land Management Specialist, at 916-574-0200 if you have any questions regarding our General Comments, and Sarah Mongano, Environmental Scientist, at 916-574-1889 regarding our Specific Comments.

Sincerely,

Marina R. Brand

Marina R. Brand, Assistant Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Michelle Clark, CSLC
File - DEPM

Response to Comments
California State Lands Commission (September 14, 2007)

CSLC-1 Comment noted. The County will comply with the State's lease requirements as outlined in the comment.

CSLC-2 The only suitable spawning habitat within 150 yards upstream or downstream of the proposed new bridge location is 115 yards downstream near the south bank of the river. Gravel removal resulting from construction of the new bridge will be limited to the new bridge location and will not affect the downstream suitable spawning habitat.

CSLC-3 Revegetation activities will be implemented on-site and/or off-site, or a combination thereof, depending on the final design of the new bridge structure. Revegetation materials will be from local sources.

The ongoing and final success criteria for the revegetation activities will be developed as a goal to determine whether the revegetation effort is successful. Success criteria may include a percentage of total native vegetative cover and wildlife use similar to that of adjacent habitats. Compliance with these criteria will be based on satisfying the target functions and values and on establishing the appropriate hydrologic regime following cessation of human support (e.g., irrigation, maintenance, weeding, reseeding).

The revegetation effort will be monitored during construction and for three to five years following installation, based on the length of time needed for the revegetation to meet the success criteria. The purpose of monitoring is (1) to document that the desired habitat(s) has been established, and (2) to identify any shortcomings so that appropriate corrective actions can be taken.

CSLC-4 See response to CSLC-3.

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

Arnold Schwarzenegger, Governor

RECEIVED
AUG 2 1 2007
TEHAMA COUNTY
PUBLIC WORKS

August 17, 2007

Kevin Rosser
Tehama County Public Works Department
9380 San Benito Avenue
Gerber, CA 96035

RE: SCH#2007082085 Jellys Ferry Road Bridge Replacement Project: Tehama County.

Dear Mr. Rosser:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Completion (NOC) regarding the above project. To adequately assess and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required:

- Contact the appropriate Information Center for a record search to determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the NAHC for a Sacred Lands File Check.
  - **Check Completed with negative results, 08/17/07**
    The absence of specific site information in the Sacred Lands File does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites (see below).
- ✓ Contact the NAHC for a list of appropriate Native American Contacts for consultation concerning the project site and to assist in the mitigation measures.
  - **Native American Contacts List attached**
    The NAHC makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received. If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information.
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.

NAHC-1

- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
- Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5 (e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Katy Sanchez

Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Native American Contacts
Tehama County
August 17, 2007

Paskenta Band of Nomlaki Indians
Everitt Freeman, Chairperson
PO Box 398 Nomlaki
Orland , CA 95963 Wintun
office@paskenta.org
(530) 865-2010
(530) 865-1870 Fax

Redding Rancheria
Tracy Edwards, Chief Executive Officer
2000 Redding Rancheria Road Wintu
Redding , CA 96001 Pit River
(530) 225-8979 Yana
Fax: (530) 241-1879

Wintu Tribe of Northern California
Kelli Hayward
3576 Oasis Road Wintu
Redding , CA 96003
wintu_tribe@hotmail.com
(530) 245-0141
(530) 245-0241 - FAX
530-245-0241-FAX

Redding Rancheria
Barbara Murphy, Chair
2000 Redding Rancheria Road Wintu
Redding , CA 96001 Pit River
(530) 225-8979 Yana
(530) 241-1879 - Fax

Redding Rancheria Cultural Resources
James Hayward Sr., Cultural Resources Program
2000 Redding Rancheria Road Wintu
Redding , CA 96001 Pit River
jamesh@redding-rancheria. Yana
530-242-4543
530-410-2873 - cell
Fax: (530) 241-1879

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2007082085 Jellys Ferry Road Bridge Replacement Project; Tehama County.

Response to Comments
Native American Heritage Commission (August 17, 2007)

EDH-1 Comment noted. The project is being processed in conjunction with Caltrans Local Assistance Procedures due to the use of federal funding to construct the replacement bridge. Accordingly, the cultural resources documentation is extensive and includes the items outlined in the comments letter. As a result of the NEPA approval and federal agency permitting requirements, the cultural resource documentation also will conform to the federal Section 106 requirements.

From: John Merz [mailto:jmerz@sacrivertrust.org]
Sent: Friday, September 14, 2007 4:11 PM
To: kevin_rosser@tco.net
Cc: Kelly Williams; gary stacey; Jim Smith
Subject: Jelly's Ferry Road Bridge Replacement Project

September 14, 2007

Kevin Rosser
Project Planner

Dear Kevin:

The Sacramento River Preservation Trust (Trust) has reviewed the Draft Initial Study/ Mitigated Negative Declaration (Draft IS/MND) for the Jelly's Ferry Road Bridge Replacement Project (Project) and would like to make the following comments:

Trust-1) Under BIO-1 Pre- Construction Survey (page 41) it states, "If necessary, the County shall implement specific take minimization measures as directed by the CDFG and the USFWS." What is meant by the words "if necessary" and how does this qualify as a mitigation measure?

Trust-2) Under BIO-3 Construction Staging Area it states, "The construction staging area shall not be placed near the Sacramento River, or near riparian or wetland vegetation." What does "near" actually mean? In addition, the Trust recommends that oak woodlands be added to the list of avoided habitats and that the staging area(s) be clearly shown on all applicable maps/construction documents.

Trust-3) Under BIO-5 Special Status Fish (last bullet, last paragraph, page 42) it states,"Any mitigation required by NMFS and the CDFG may be implemented by the County." What is meant by "may." That doesn't sound like a mitigation feature to the Trust.

Trust-4) Under BIO-10 Trees (page 44) the replacement ratio is 3:1. Please justify. The Trust would also like to strongly recommend that ALL plantings come from LOCAL seed sources (any cuttings as well). The Trust also notes that the reference to survival does NOT indicate either a percentage figure or a time period. Please provide.

Trust-5) In addition to the above, the Trust would request that the word "should" be replaced with the word "shall" in all the stated mitigations.

Trust-6 On a more general note, the deferral to various agencies for potential additional mitigations is not acceptable in adopting a Mitigation Monitoring and Reporting Plan. The Trust hereby requests that the Draft IS/MND be revised accordingly and recirculated so that the tax-paying public can get a more complete picture of the environmental impacts of the Project.

The Trust is appreciative of being given the opportunity to comment and looks forward to your responses to our concerns.

Sincerely,

John Merz
President
Sacramento River Preservation Trust
P.O. Box 5366
Chico, CA 95927
(530) 345-1865
jmerz@sacrivertrust.org
P.S. Please keep us informed of any and all future activities concerning this Project. Thanks.

Trust-7 P.P.S. One last question - Why does the current bridge need to be demolished once the new bridge is built?

Response to Comments
Sacramento River Preservation Trust (September 14, 2007)

Trust-1 Re-worded to remove "If necessary," as follows, "The County shall implement any specific take minimization measures as directed by the CDFG, USACE and the USFWS."

Trust-2 Typically staging areas are developed that do not remove vegetation, nor allow for accidental spills to directly enter waterways (Sacramento River), and in this case, will not interfere with the use of the Yana Trail or Sacramento River Boat Ramp. State and federal permitting agencies will also review the construction plans as a final check on the appropriateness on the location of construction staging.

Trust-3 Replaced "may" with "shall."

Trust-4 See response CSLC-3.

Trust-5 Replaced "should" with "shall."

Trust-6 In the County's opinion, the minor changes to the mitigation measures do not create a need to re-circulate the MND. Likewise, the County does not believe the mitigation measures defer actions, or findings to some future evaluation. The measures are presented in a manner that does allow the general public an opportunity to understand the nature of the mitigation, as well as the findings.

Trust-7 The old bridge needs to be removed for several reasons. If both the old and new bridges are present, the river hydraulics will be unnecessarily affected by bridge's piles in the river. The project replaces a seismically deficient bridge that may collapse during a credible earthquake; in which case the old bridge would become a liability for the County, as well as a long-term maintenance concern.

Law Offices of
Charles T. Schultz
A PROFESSIONAL CORPORATION
4333 Orange Street, Suite 18
Riverside, California 92501
Phone 951-248-2277
Fax 951-248-2270

RECEIVED
SEP 18 2007
TEHAMA COUNTY
PLANNING DEPT.
SEP 17 200
TEHAMA COUNTY CLERK

September 13, 2007

SENT VIA EXPRESS MAIL
County Clerk
County of Tehama
633 Washington
Red Bluff, CA 96080

cc: JS
BD
BG
C Antone
CC

RE: Negative Declaration: Jelly's Ferry Road Replacement Project

To the Clerk County of Tehama,

I represent the Gless Family Trust, which owns real property located at 17985 Jelly's Ferry Road, 17955 Jelly's Ferry Road and 17925 Jelly's Ferry Road, Red Bluff, California. The properties consist of four parcels identified by APN 009-150-34-1, APN 009-150-35-1, APN 009-150-36-1 and APN 009-150-37-1.

The purpose of this letter is to oppose the issuance of a proposed integrated negative declaration for the Jelly's Ferry Road Replacement Project as presently designed. The environmental impacts demanding another study include traffic impacts, noise, inducement of growth and compatibility with surrounding residences and wildlife. The project, as proposed, will eliminate the viability for use as residential property of the property owned by the Gless Family Trust. CS-1

Further environment review, including an alternative design so that the property owned by the Gless Family Trust will not be impacted needs to occur prior to adoption of any action required by CEQA. The Gless Family Trust demands a public hearing be held to discuss the potential environmental impacts of the proposed project prior to adoption of the Proposed Mitigated Negative Declaration. CS-2

We request an EIR be circulated and adopted prior to approval of the project pursuant to CEQA. CS-3

Sincerely,

Charles T. Schultz
A PROFESSIONAL CORPORATION

Charles T. Schultz

Charles T. Schultz

CTS/rr
Cc: J. Gless

Response to Comments
Charles T. Schultz (September 13, 2007)

CS-1 Comment noted; however the County does not believe that the project will alter the viability of the Gless property for residential usage. The portion of the existing road closest to the vacant Gless family home will remain unchanged with the realignment of the bridge, resulting in no new noise effect. At a distance of approximately 600-feet from the Gless residence, the new bridge roadway approach alignment moves closer to the residence by up to 50-feet. However, this slight encroachment onto the property at 600 feet will not result in a perceptible noise increase due to the distance to the residence, combined with the volume of vehicles using the roadway. In addition, the new bridge will utilize an intervening 3-foot concrete safety barrier that will also reduce road noise. The existing bridge does not have any intervening barriers to assist in reducing vehicle noise.

The road will retain the same roadway lane configuration (2 lanes), therefore, will not expand the vehicle capacity of the existing roadway. By providing two lanes on the bridge, it is expected that congestion will be alleviated when compared with the road narrowing at the existing one lane bridge. Accordingly, the proposed geometry improves traffic operations, but will not increase traffic volume.

Project impacts to wildlife have been found to be less than significant with implementation of mitigation.

CS-2 Project alternatives were studied and considered during the design of this project; however were found to be less then adequate when compared to the current design. These designs were rejected as infeasible, or had greater environmental impact when compared with the proposed alignment design. A public hearing will be held in conjunction with the project approval process.

CS-3 The County has found that preparing an Environmental Impact Report (EIR) would not be necessary for this project in light of this MND's findings. Any significant impacts associated with this project are mitigable, therefore making them less than significant with mitigation.

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JELLY'S FERRY ROAD BRIDGE REPLACEMENT PROJECT

TEHAMA COUNTY, CALIFORNIA

LSA

July 26, 2007

~~DRAFT~~

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JELLY'S FERRY ROAD BRIDGE REPLACEMENT PROJECT

TEHAMA COUNTY, CALIFORNIA

Submitted to:

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LSA Project No. TYL0602

LSA

July 26, 2007

TABLE OF CONTENTS

I. BACKGROUND 1
II. PROJECT DESCRIPTION 2
PROJECT LOCATION 2
PROJECT BACKGROUND 2
PROJECT PURPOSE 5
PROPOSED PROJECT 5
Clearing and Grading the Proposed Roadway 6
Construction of the Bridge 6
Disposal of Excavated Material/Importation of Fill Material 9
Other Construction Waste 10
Drainage Design 10
Basic Control Measures 10
Additional Special Environmental Provisions 11
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 12
DETERMINATION 13
ENVIRONMENTAL CHECKLIST 14
I. AESTHETICS. 14
II. AGRICULTURAL RESOURCES. 20
III. AIR QUALITY. 21
IV. BIOLOGICAL RESOURCES. 24
V. CULTURAL RESOURCES. 45
VI. GEOLOGY AND SOILS. 48
VII. HAZARDS. 50
VIII. HYDROLOGY AND WATER QUALITY. 53
IX. LAND USE AND PLANNING. 58
X. MINERAL RESOURCES. 59
XI. NOISE 60
XII. POPULATION AND HOUSING. 62
XIII. PUBLIC SERVICES. 63
XIV. RECREATION. 64
XV. TRANSPORTATION/TRAFFIC. 65
XVI. UTILITIES AND SERVICE SYSTEMS. 67
XVII. MANDATORY FINDINGS OF SIGNIFICANCE. 69
REPORT PREPARERS 71
REFERENCES 72

APPENDICES

A: HYDRAULIC ANALYSIS

FIGURES AND TABLES

FIGURES

Figure 1: Regional Location 3
Figure 2: Project Area 4
Figure 3: Proposed Project Site Plan 7
Figure 4: Proposed Boat Ramp Access 8
Figure 5: Site Photographs 15

TABLES

Table A: Air Quality Attainment Status 22
Table B: Special-status Plant Species Potentially Present Within the Project Area 25
Table C: Special-status Animal Species Potentially Present Within the Project Area 27
Table D: Native Fish Species in the Sacramento River in Tehama County and Population Status. 38
Table E: Temporary Impacts to Sensitive Natural Communities within the Project Area 39
Table F: Permanent Impacts to Sensitive Natural Communities within the Project Area 39
Table G: Temporary Impacts to Waters of the U.S. and CDFG Waters (in square feet) 40
Table H: Permanent Impacts to Waters of the U.S. and CDFG Waters (in square feet) 40

I. BACKGROUND

File number, Project Name: Tehama County Jelly's Ferry Road Bridge Replacement Project

Project location: Bridge #8C-0043 is a roadway for Jelly's Ferry Road over the Sacramento River, 7.5 miles north of Interstate 5.

Project Sponsor: Tehama County Public Works Department
9380 San Benito Avenue
Gerber, CA 96035

Project Planner and Contact Persons: Kevin Rosser, (530) 385-1462 Ext. 3051

Environmental Planner: Bill Mayer, LSA Associates

Date Draft Initial Study Completed: July 24, 2007

Introduction: The following Initial Study/Mitigated Negative Declaration has been prepared in accordance with California Environmental Quality Act (Public Resource Code Sections 15000 et. seq.)

II. PROJECT DESCRIPTION

PROJECT LOCATION

The existing Jelly's Ferry Road Bridge (Bridge No. 8C-0043) serves as a roadway for Jelly's Ferry Road over the Sacramento River and is located 7.5 miles from the Junction of Jelly's Ferry Road with Interstate 5. The proposed bridge replacement project is along the Sacramento River, within Northern Tehama County, northwest of Table Mountain, approximately 9 miles north of Red Bluff and less than a mile south of Jelly's Ranch (Figure 1).

The project area is in T28N, R3W, Sec 3 and T29N, R3W, Sec 34 on the Bend, California 7.5 minute series USGS quadrangle. The project is located at latitude 40.3147°N and longitude 122.1884°W and UTM 10 568960E, 4463004N (Figure 2).

PROJECT BACKGROUND

Geologically, the project area lies on non marine alluvium dating to the late Pleistocene (older than 12,000 years). The topography of the region varies from lowlands of the valley floor, to the rolling terrain of the foothills. The project site is mostly flat and bisected by the well-defined Sacramento River channel. The large meandering gravel bed river has a wide left overbank, portions of which are within the 100-year floodplain.

Six terrestrial community types were identified in the study area: mixed riparian forest, herbaceous riparian, ruderal, non-native annual grassland, pasture, and developed. One additional habitat type, Riverine, was also identified at the site. Riparian associated plant communities are significant natural plant communities and because of their local and regional scarcity. Much of the mixed riparian forest in the vicinity of the project site has been recorded in the California Natural Diversity Database (CNDDB) by the California Department of Fish and Game (CDFG). Portions of the mixed riparian forest and herbaceous riparian may also be considered wetlands under the jurisdiction of the U.S. Army Corps of Engineer's pursuant to Section 404 of the Clean Water Act.

The upper Sacramento River historically supported a riparian corridor connecting the Cascade Mountains, Sacramento Valley, Sacramento River Delta, and San Francisco Bay; however, agriculture, ranching, residential development, flood control projects, and water storage projects have reduced and fragmented most of the riparian habitat along the Sacramento River and its tributaries. Although the riparian habitat along the Sacramento River has been reduced in both acreage and quality, it remains a significant local, regional, and statewide wildlife resource. Much of the land adjacent to the upper Sacramento River is pasture and rangeland, which has moderate to high wildlife value. No local policies are established which affect this project and no habitat conservation plans exist for this area of Tehama County.

The proposed project is partially located on U.S. Bureau of Land Management (BLM) lands and new right-of-way would be required from the BLM in order to construct the proposed project. The BLM manages this project area as part of the Bend ACEC (Area of Critical Environmental Concern). The



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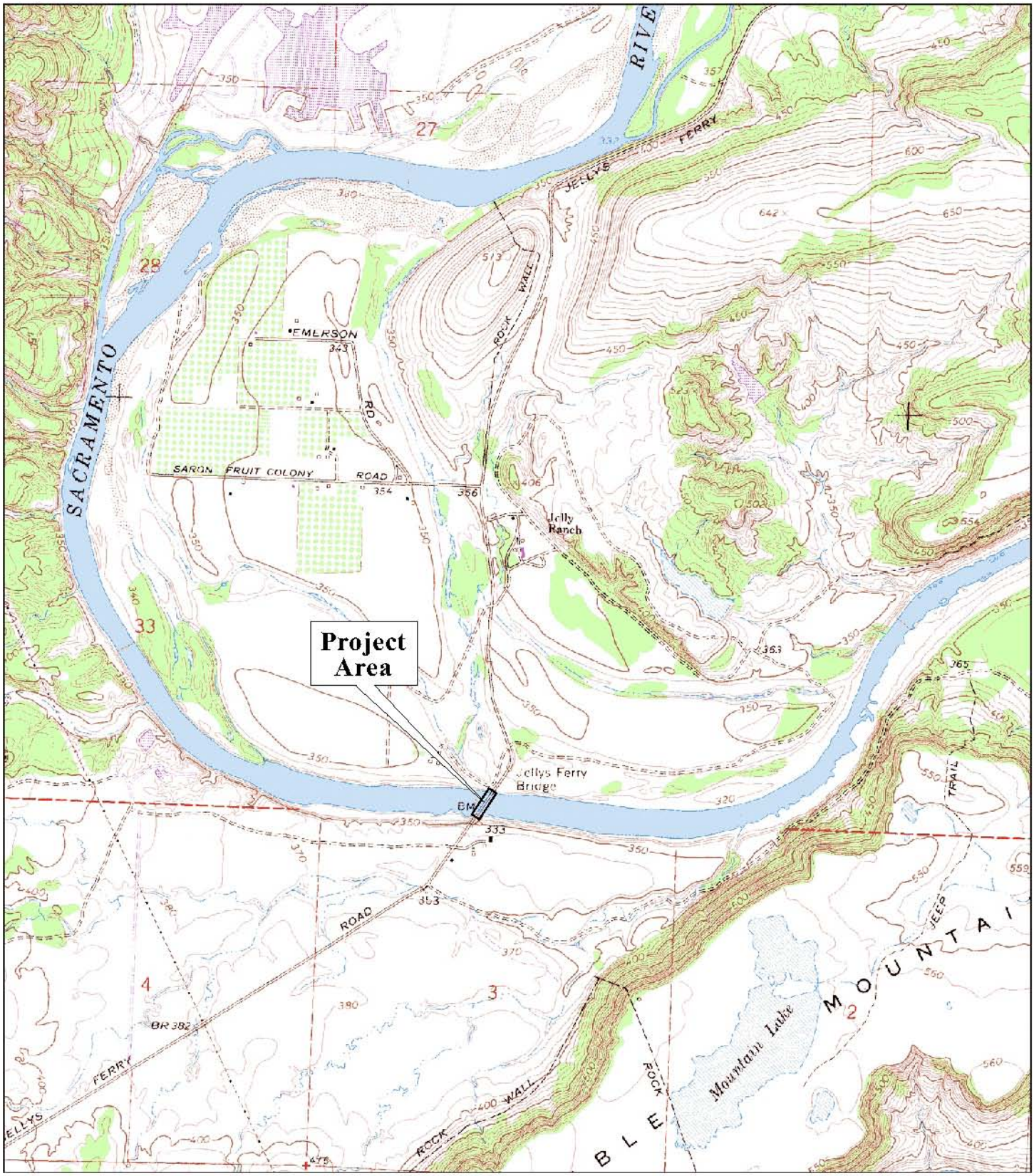
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FIGURE 1

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California

Regional Location

SOURCE: ©2006 DeLORME. STREET ATLAS USA®2006.



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FIGURE 2

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Project Area

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FEET

SOURCE: USGS 7.5' QUAD - BEND, CALIF.

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Redding Resource Management Plan (RMP) of 1993 states that the Bend ACEC "warrants designation as an ACEC since the values have regional importance, are uncommon in public ownership, and are increasing in significance as other portions of the river and surrounding environments are developed." The ACEC values that occur in this analysis area include riparian habitat, archaeological sites, regionally important steelhead and salmon spawning habitat, deer winter range and scenic quality.

Construction easements may also be needed at the crossing of the Sacramento River. New property fencing would be required along the new right-of-way limits for the length of the roadway realignment.

Cow Creek Ranch and Table Mountain Ranch are adjacent to the project site on surrounding land designated for cropland and grazing. Also, the BLM manages Jelly's Ferry Recreation Area beneath the bridge.

Jelly's Ferry Road Bridge (Bridge No. 08C-0043) is a steel truss structure with timber and steel approach spans on both ends constructed in 1949. The Pratt through truss style bridge supports one 17-foot wide one-lane bridge. The existing Jelly's Ferry Road has a 280-foot curve radius at the northern approach to bridge. The total existing bridge length is 940 feet, and its width is approximately 21.5 feet total, with a traveled way of approximately 17 feet without shoulders.

PROJECT PURPOSE

The bridge is 58 years told and is classified as functionally obsolete. The bridge has consequently been slated for replacement under the Highway Bridge Program (HBP).

PROPOSED PROJECT

The Tehama County Department of Public Works (County) is proposing the Jelly's Ferry Road Bridge Replacement Project in order to address public safety concerns associated with the existing seismically unsafe bridge crossing and to reconfigure the roadway alignment to American Association of State Highway and Transportation Officials (ASHTO) standards. The proposed project would be funded from the Local Seismic Retrofit Program (Prop 1B) managed by the Federal Highway Administration (FHWA), the Highway Bridge Program (HBP), and the State Transportation Improvement Program (STIP) matching funds.

New right-of-way would be required from the Bureau of Land Management (BLM) in order to construct the proposed project. The approximately 3,000 feet of bridge construction and roadway realignment would require a right-of-way corridor that varies in width from 102 feet to 135 feet. Construction easements may also be needed at the crossing of the Sacramento River. New property fencing would be required along the new right-of-way limits for the length of the roadway realignment. The project also includes improvements to the BLM Jelly's Ferry Recreation Area that lies within the project area according to BLM specifications.

Construction of the proposed project would be staged to allow maintenance of existing traffic movements on Jelly's Ferry Road. Once the proposed roadway alignment is graded, the proposed two-lane undivided bridge would be installed. A temporary steel trestle will be erected in order to

provide access from both the north and south sides for bridge construction equipment, materials and activity over the Sacramento River. Figure 3 presents the proposed site plan for the bridge replacement project.

Bridge foundations would be located approximately 50 feet west (upstream) of the existing bridge and would consist of steel "H" piles or cast-in-drilled-holes (CIDH) concrete piles. These footings would support the construction of a new two-lane undivided bridge spanning approximately 1,000 to 1,200 feet. The bridge would include 24-foot lanes and 4-foot shoulders. The new roadway would have a 1,150-foot curve radius as it approaches the northern bank of the Sacramento River. The new bridge would be either a cast-in-place (CIP) pre-stressed box girder or a steel plate girder bridge.

Upon completion of bridge construction activities, the 1,900 feet of roadway would be constructed, including laying the 4-inch Asphalt Concrete (Type A) pavement over an 8-inch Class 2 Aggregate Base, completing drainage improvements, and striping the roadway.

The proposed project would meet American Association of State Highway and Transportation Officials (AASHTO) standards for both the horizontal and vertical alignments. The project grading would include roadway excavation and embankment. Cut and fill slopes would be assumed at 1 (vertical) to 2 (horizontal) throughout the project. Rock slope protection could be necessary along the north side of the river within the project area, however it would be placed above the ordinary high water mark of the river. A new boat ramp access will be installed as part of the BLM Recreation Area (Figure 4).

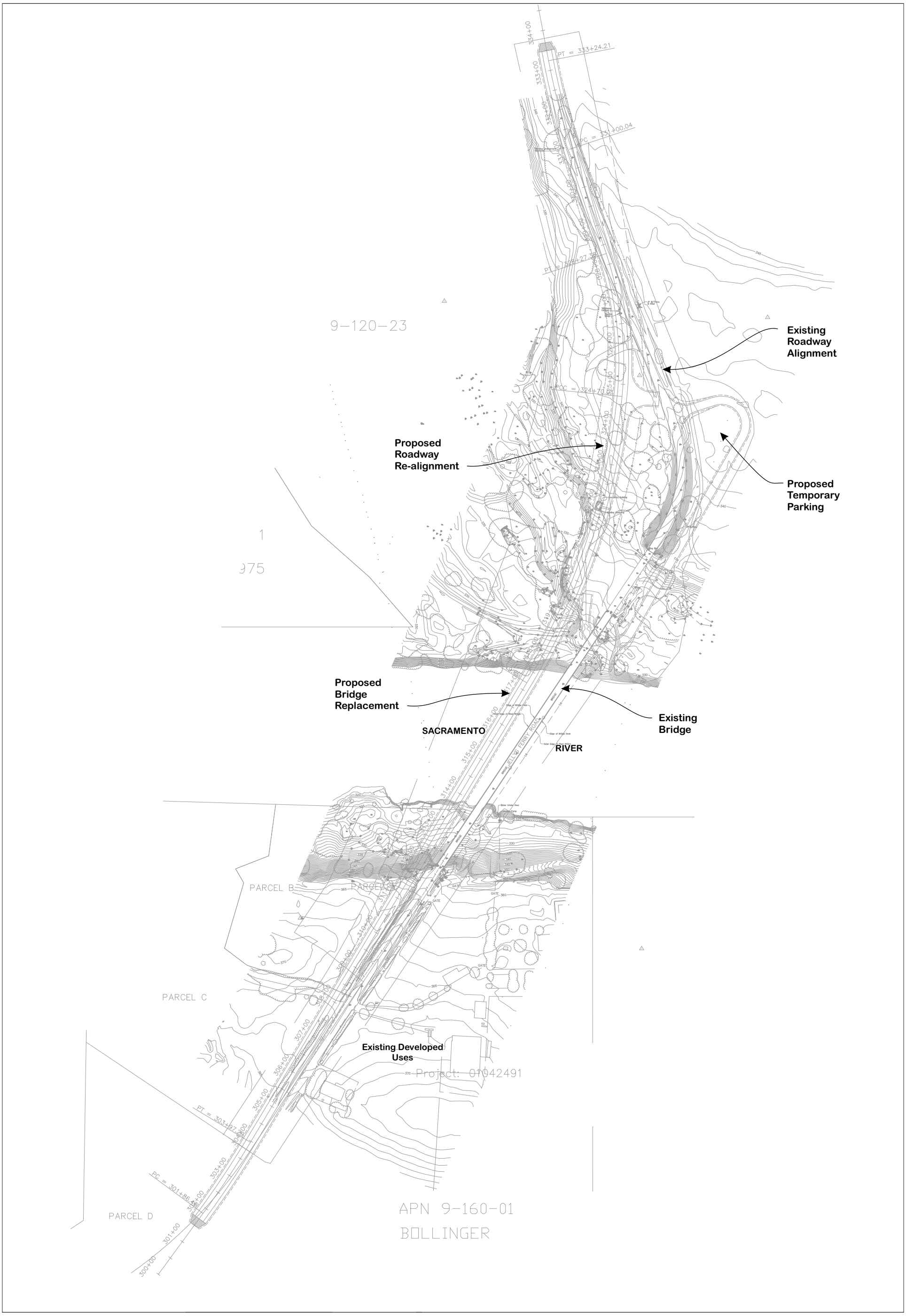
Clearing and Grading the Proposed Roadway

This phase would consist of the removal of vegetation, drainage facilities, and existing structures for the entire length of the proposed roadway alignment. Existing ditches would be filled in and the area would be graded.

Construction of the Bridge

Construction Contractor. Construction work for the proposed project would be performed by a contractor selected by the Tehama County Pubic Works Department. Two to 25 workers would be employed throughout the duration of the proposed project. The County or its contractor would obtain all required licenses, permits, and approvals necessary for the performance of the work. The contractor would be required to comply with all applicable occupational health and safety standards, rules, and regulations. Additionally, specific requirements or restrictions upon construction activities would be implemented in accordance with agency-required mitigation measures. These mitigation measures, as provided in this environmental document, would be included in the construction specifications to be provided by the County to the contractor.

Construction Schedule. Construction of the proposed project would last approximately 17 months, with construction scheduled to begin in July 2009 and end in November 2010. Construction in the Sacramento River would last approximately eight weeks. Construction activities during this period would include driving piles, placing cofferdams, and conducting any other activities that may cause turbidity in the river. Once cofferdams and piles are in place, work could continue "inside" the cofferdam or above water level. The contractor will be able to work during daylight hours.

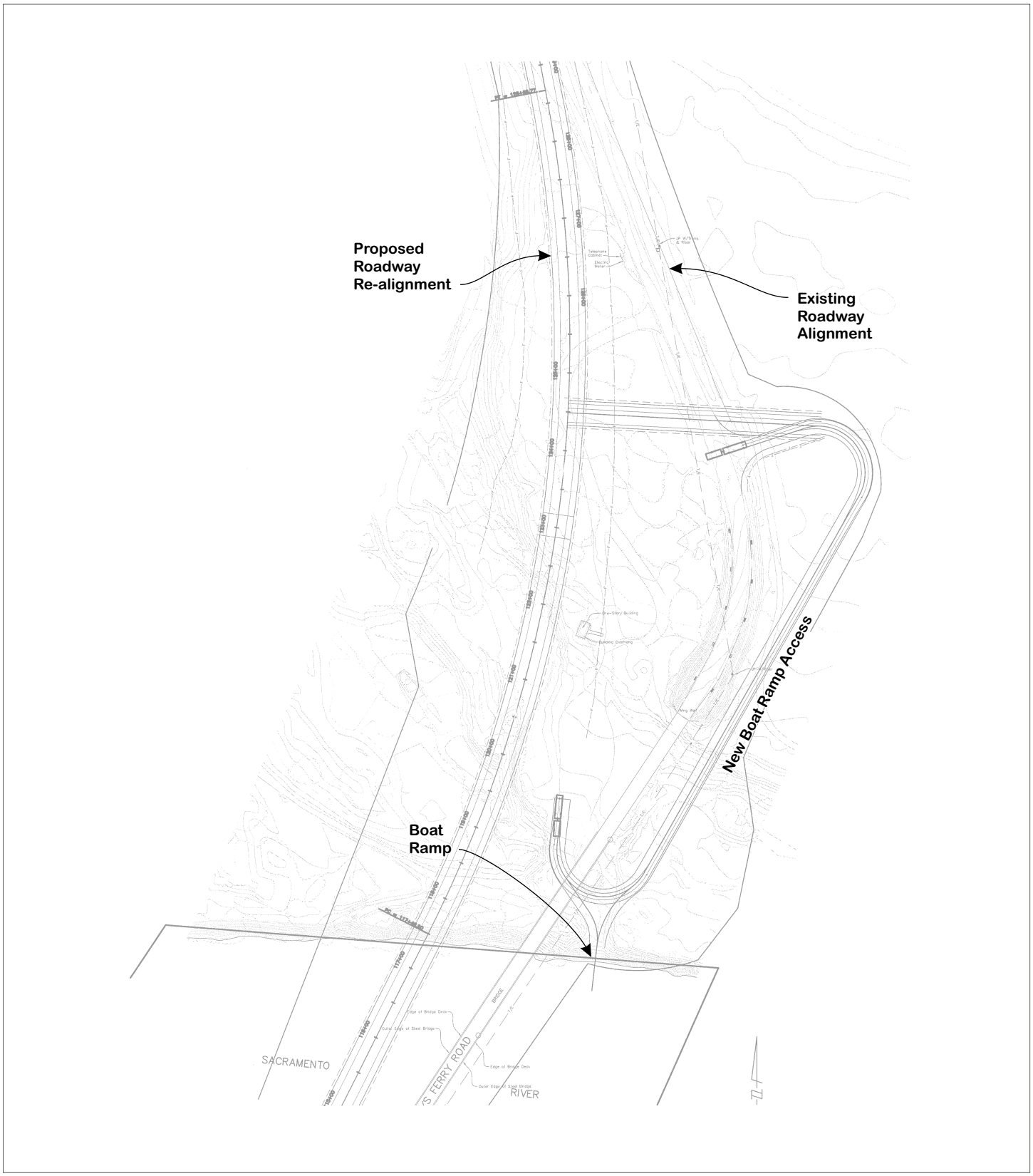


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FIGURE 3

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California

Proposed Project Site Plan



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FIGURE 4

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Proposed Boat Ramp Access Plan

Additionally, in some instances, the contractor will be able to work during the nighttime hours to complete detour maintenance/traffic control.

The County would adhere to the June 1-September 1 in-river construction window determined in consultation with the National Marine Fisheries Service (NMFS) and the CDFG who have jurisdiction over the anadromous fish species potentially present within the project area. Cofferdams, false work, and trestles constructed during this time period would be allowed to remain in the river as necessary until the following in-river construction season. Work within completed cofferdams or on completed false work and trestles would be allowed outside of the in-river construction window.

Once the bridge and roadway realignment construction are completed, the existing Pratt through truss style 1949 bridge (8C-0043) would be removed.

Traffic Diversion. Traffic would use the existing roadway alignment and bridge crossing during construction of the proposed project. Construction would be scheduled to limit interruptions. Public safety and emergency services would be kept informed of construction activities in order to plan emergency response routing, if necessary. The trailhead parking area (shown as the temporary parking lot for BLM access on Figure 3) would provide temporary parking during construction of the bridge.

Construction Staging Area. A central staging area, including a temporary office trailer and a parking area for construction workers and equipment, would be needed during construction of the proposed project. The precise location of the staging site has not been determined, although it would most likely be located on BLM land northwest of the existing bridge. The BLM has agreed to provide an easement for the use of this property during construction. Another possible construction staging area would be within the agricultural field southwest of the existing bridge. Following project completion, the construction staging area would be reclaimed. The staging area would be located outside the "waters of the U.S." (i.e., above the 332-foot elevation that was determined to roughly represent the OHWM of the Sacramento River at the project site). It is not expected that tree removal would be necessary within the staging area.

Construction Equipment and Vehicles. Specific construction equipment and vehicles to be used at the project site would largely be determined by the construction contractor. Equipment expected to be used may include pick-up trucks, dump trucks, backhoes, water trucks, truck-mounted drills, cranes, pile driving rigs, concrete delivery trucks, graders, asphalt concrete paving machines, and service vehicles.

Disposal of Excavated Material/Importation of Fill Material

Soils would be imported into the project study area for use as fill. The construction contractor, under County oversight, would be responsible for securing a source of fill material, transporting both excavated and imported materials, and disposing of excavated materials. Excavated soil that is uncontaminated and free of debris would be used for fill in creating the roadway embankment. Excavated and fill materials would be carefully segregated to avoid reuse of potentially contaminated soils. Solid debris from the construction site or from other activities associated with the proposed activities would be kept out of the Sacramento River and associated drainages.

Other Construction Waste

Liquid construction waste would be disposed of in a proper manner. Petroleum-based compounds would be contained and removed to an acceptable off-site disposal location. Waste water from concrete and other construction activities would not be allowed to drain into the Sacramento River or any associated drainage channels in an uncontained and untreated manner. Washing of construction vehicles or other equipment in drainage paths to the Sacramento River would be prohibited. A spill prevention plan would be implemented for potentially hazardous materials used within the project area (e.g., oil, hydraulic fluid, sealant, and concrete batching). The plan would include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills. In addition, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared to protect water quality and approved by the Regional Water Quality Control Board prior to construction. Solid debris from the construction site or from other activities associated with the proposed activities would be kept out of the Sacramento River and associated drainages.

Drainage Design

Except for the bridge structure, direct discharge of surface runoff to the Sacramento River and associated drainages would be avoided. Drainage from the bridge would drain directly into the Sacramento River. Drainage water would be allowed to flow off the elevated roadway and is unlikely to be concentrated. New and existing drainage facilities, including channels, swales, detention basins, culverts, and drop inlets would be sized to handle the anticipated flow from the proposed project.

Basic Control Measures

Standard working practice requires the following "Basic Control Measures" to reduce air quality impacts:

- All active construction areas shall be watered at least twice daily.
- All unpaved access roads, parking areas, and staging areas at the construction site shall be paved, watered, or applied with non-toxic soil stabilizers.
- Construction equipment must meet off/on road heavy-duty vehicle reduced-emission standards as stated in the California Code of Regulations. This equipment should be used for clearing, grading, and other earthmoving operations to minimize exhaust emissions and odors, and increase fuel efficiency.

Geology, Seismicity, and Soil Permits. Construction work within the stream environmental zone will be performed adhering to conditions included in a California Department of Fish and Game Section 1601 Streambed Alteration Agreement, a Regional Water Quality Control Board Section 401 Water Quality Certification Permit, a United States Army Corps of Engineers Section 404 Permit, and Tehama County Grading Ordinance requirements.

Additional Special Environmental Provisions

Disturbance would be limited within the Sacramento River and along its banks to the extent feasible during construction.

Following construction of the proposed project, the right-of-way would be stabilized and landscaped including erosion control in accordance with the County and Caltrans landscape guidelines and specifications in order to reduce the potential for long-term impacts to "waters of the U.S." and aquatic habitats. A landscape plan would be prepared and approved as part of the construction phase of the project.

Special environmental provisions, including the location of allowed access routes to the construction site, would be specified in the Special Provisions document prepared for the proposed project. The contractor would be required to follow the provisions and mitigation measures discussed in this document.

Agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- U. S. Army Corps of Engineers (ACOE) Section 404 Permit
- Regional Water Quality Control Board (RWQCB) Section 401 Certification
- California Department of Fish and Game (CDFG) Streambed Alteration Agreement
- U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Section 7 Consultation and Incidental Take Permit
- California Department of Fish and Game (CDFG) Section 2081 Permit
- Coast Guard Bridge Permit
- State Reclamation Board
- Local Reclamation District
- State Department of Water Resources
- U.S. Bureau of Land Management (BLM)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

❑ Aesthetics	❑ Agricultural Resources	❑ Air Quality
■ Biological Resources	■ Cultural Resources	❑ Geology/Soils
❑ Hazards & Hazardous Materials	❑ Hydrology/Water Quality	❑ Land Use/Planning
❑ Mineral Resources	❑ Noise	❑ Population/Housing
❑ Public Services	❑ Recreation	❑ Transportation/Traffic
❑ Utilities/Service Systems	❑ Mandatory Findings of Significance	

DETERMINATION

On the basis of this initial evaluation:

- ❑ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- ■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ❑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- ❑ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

- ❑ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

Gary Antone, Director of Public Works
Tehama County Public Works Department

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	❑	❑	❑	■
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	❑	❑	■	❑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	■	❑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	❑	❑	❑	■

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

The proposed project would require removal of vegetation (mature trees, bush/brush, grasses) for the entire length of the proposed roadway alignment. Natural revegtation of upland areas is expected to occur following construction of the proposed project. However, a landscape plan, including erosion control in accordance with the County and Caltrans landscape guidelines and specifications would be prepared and approved as part of the construction phase of the project. Also as part of the proposed project, native species of trees that would be impacted during construction would be replaced at a 3:1 ratio (Also refer to Section IV. Biological Resources). The project does not lie within a state scenic highway route. If required, additional revegetation measures would be implemented as part of permit stipulations for the proposed project. (Refer to Figure 5. Site Photographs)

Therefore, the proposed project would have a less-than significant impact to scenic resources.

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

During the construction phase, the presence of construction equipment and materials, as well as visual changes associated with grading and other construction activities, would result in temporary visual changes. The proposed project includes construction staging specifications that are expected to reduce this temporary visual impact.

A new structure (i.e., bridge) and roadway realignment would result in a change to the existing visual character or quality of the site (Figure 5); however, because the existing Jelly's Ferry Road Bridge spans the river 50 feet downstream of the project site, the visual character or quality of the project



Representative oak woodland habitat.



Existing BLM Park and vehicular parking.

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FIGURE 5

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Site Photographs



Existing bridge (southbound direction).



View to east from existing roadway.

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FIGURE 5

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Site Photographs



View into BLM Park and parking area from existing road.



View of existing bridge (looking south).

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FIGURE 5

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Site Photographs



View of existing bridge (looking southwest).



View of existing bridge (northbound direction).

LSA

FIGURE 5

Jelly's Ferry Bridge Replacement Project
Near Bend, Tehama County, California
Site Photographs

area has been previously established and would not be altered significantly. The change will primarily focus on the presence of a new, state-of-the-art concrete or steel bridge structure replacing the scaled-down truss style bridge architecture. Also, the bridge would be designed so as not to degrade the existing visual character or quality of the site and its surroundings.

The proposed project would have a less-than-significant impact to existing visual character or quality of the site and its surroundings.

Mitigation Measures

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
II. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	❑	❑	❑	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	❑	❑	❑	■
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	❑	❑	❑	■

The project does not take place within the boundary of farmland, therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, conflict with existing zoning for agricultural use or a Williamson Act contract, or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use

Mitigation Measures

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	■	❑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❑	❑	■	❑
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❑	❑	■	❑
d) Expose sensitive receptors to substantial pollutant concentrations?	❑	❑	■	❑
e) Create objectionable odors affecting a substantial number of people?	❑	❑	■	❑

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQs) for seven air pollutants, including ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM_{10}, $PM_{2.5}$), and lead. The State has also set standards for a number of other air pollutants and has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10} representing periods of short-term exposure to air pollutants that actually threaten public health. Direct emissions from motor vehicles are regulated by the Air Resources Board (ARB).

The project site is located in central Tehama County which is under the jurisdiction of the Tehama County Air Pollution Control District (TCAPCD). The California Clean Air Act provides TCAPCD with the authority to manage transportation activities at indirect sources (e.g., motor vehicles at an intersection, a mall and on highways) as well as stationary sources of pollution through its jurisdictional area. However, Tehama County bridge construction projects do not require a permit from the TCAPCD.

III.a) *Conflict with or obstruct implementation of the applicable air quality plan?* **And;**

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

The proposed bridge replacement will not generate new vehicular trips, rather will accommodate the existing/proposed travel demand using Jelly's Ferry Road. Air pollution associated with the proposed project would be temporary and would be primarily vehicle related. Long-term increases in the existing level of air pollution associated with the existing bridge will not occur. Increased air pollutant emissions associated with the proposed project would occur over the short-term in association with construction activities. However, with mitigation, the project would not conflict with Tehama County's Air Quality Plan or create a permanent air quality violation.

Implementation of the "Basic Control Measures" (listed in the project description) would reduce construction impacts to a less-than-significant level.

III.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)?*

Tehama County air quality status for 2007 is summarized in Table A. Given that no additional traffic is expected on Jelly's Ferry Road after the bridge is replaced, the project would not further aggravate any State or Federal non-attainment status or generate additional vehicle trips. Construction related PM_{10} emissions at the project site can be reduced by implementation of mitigation.

Implementation of the "Basic Control Measures" (listed in the project description) would reduce construction impacts to a less-than-significant level.

Table A: Air Quality Attainment Status

Pollutant	Tehama County	State	National
Ozone	Unclassified/Attainment	Non-Attainment	Unclassified/Attainment
Carbon Monoxide	Unclassified	Unclassified	Unclassified/Attainment
Particulates (PM_{10} and $PM_{2.5}$)	Unclassified/Attainment	Non-Attainment	Unclassified
Sulfates	Attainment	Attainment	Data not available
Hydrogen Sulfide	Unclassified	Unclassified	Data not available

III.d) *Expose sensitive receptors to substantial pollutant concentrations?*

Construction of the proposed project may expose surrounding, sensitive land uses to short-term emissions of airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment). Low density residential land uses are located adjacent to the project site and can be considered sensitive receptors. However, the project would not result in substantial pollutant concentrations. Any construction-related release of pollutants would be localized and temporary, occurring only during active construction.

Long-term air pollution associated with the proposed project would be primarily vehicle related, and would not increase the existing level of air pollution associated with the existing bridge.

Therefore, short-term and long-term exposure of sensitive receptors to pollutants would be less-than-significant and no mitigation is required.

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

During project construction, emissions from diesel-driven equipment and vehicles may result in odors on the project site and immediate vicinity. However, construction is short-term in nature and these emissions would cease to occur after construction is completed. In addition, odors from construction equipment and vehicles on the project site would be dispersed quickly. The short-term odors are less than significant and no mitigation is required.

Mitigation Measures

None required.

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

IV.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?*

Plants. A records search using the California Natural Diversity Data Base (CNDDB), California Native Plan Society (CNPS) and consultation with USFWS revealed federally or state listed plant species are not present within the project area. However, a field survey conducted by May and Associates on August 20, 2001 discovered one special-status Northern California black walnut tree on the project site in a location proposed for construction. A more recent field survey discovered the several elderberry bushes planted by the BLM. These bushes are beyond the project impact zone and

were planted to assist in the recovery of the Valley Elderberry Longhorn Beatle (VELB). It should be noted that these bushes are not mitigation requirements from a previous project. It was also determined that habitat is present that could potentially support the following federally and state non-listed special-status plant species: fox sedge; silky cryptantha; Ahart's paronychia; and Sanford's arrowhead. Table B lists the special status plant species potentially present in the project area. However, no individuals of these later species were observed during the field survey, therefore it is assumed that they are not present.

Table B: Special-status Plant Species Potentially Present Within the Project Area

SPECIES	STATUS * (USFWS CA/CNPS)	COMMENTS
PLANTS		
Henderson's bent grass (*Agrostis hendersonii*)	--/--/3	***Unlikely within the project area.*** Occurs in vernal pools and Valley Foothill grasslands less than 985 ft. Blooms April-May. Suitable habitat is not present within the project area.
Depauperate milk-vetch (*Astragalus pauperculus*)	--/--/4	***Unlikely within the project area.*** Occurs in cismontane woodland and Valley and Foothill grasslands between 450 and 2,050 ft. Blooms March-June. **Project area is outside the known elevation range of the species.**
Fox sedge (*Carex vulpinoidea*)	--/--/2	***Potentially present within the project area.*** Occurs in marshes, swamps, and riparian woodland less than 4,000 ft. Blooms May-June. **Not observed during the field survey.**
Silky cryptantha (*Cryptantha crinita*)	--/--/1B	***Potentially present within the project area.*** Occurs in sandy and gravelly soil in riparian habitats between 0 and 1,000 ft. Blooms April-May. **Not observed during the field survey.**
Four-angled spikerush (*Eleocharis quadrangulata*)	--/--/2	***Unlikely within the project area.*** Occurs in Freshwater marshes and swamps less than 1,600 ft. Blooms May-September. **Suitable habitat is not present within the project area.**
Adobe lily (*Fritillaria pluriflora*)	--/--/1B	***Unlikely within the project area.*** Occurs in chaparral, Valley annual grasslands, and Foothill woodlands on clay soils between 0 and 1,500 ft. Blooms February-April. **Suitable habitat is not present within the project area.**
Boggs Lake hedge-hyssop (*Gratiola heterosepala*)	--/E/1B	***Unlikely within the project area.*** Occurs in marshes and swamps at lake margins and in vernal pools in clay soils between 30 and 7,800 ft. Blooms February-April. **Suitable habitat is not present within the project area.**
Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*)	--/--/1B	***Unlikely within the project area.*** Occurs in vernal pools and swales between 160 and 1,600 ft. Floodplains and stream terraces are favored locations. Blooms in April. **Suitable habitat is not present within the project area.**

Slender Orcutt grass (*Orcuttia tenuis*)	T/E/1B	***Unlikely within the project area.*** Occurs in vernal pools. Blooms May-October. **Suitable habitat is not present within the project area.**
Ahart's paronychia (*Paronychia ahartii*)	--/--/1B	***Potentially present within the project area.*** Occurs in vernal swales and margins of vernal pools, in clay soils less than 1,600 ft. Blooms April-June. **Not observed during the field survey.**
Sanford's arrowhead (*Sagittaria sanfordii*)	--/--/1B	***Potentially present within the project area.*** Occurs in freshwater marshes, shallow streams, and ditches less than 1,000 ft. Blooms May-August. **Not observed during the field survey.**

Wildlife. Consultation with the USFWS and a field survey conducted by May and Associates revealed that the following federally or state listed wildlife species are potentially present or known to be present within the project area: steelhead, Central Valley ESU; spring-run Chinook salmon, Central Valley spring-run ESU; winter-run Chinook salmon, Sacramento winter run ESU; southern distinct population segment of green sturgeon, Swainson's hawk; and bald eagle. The following federally or state non-listed wildlife species are potentially present or known to be present within the project area: river lamprey; hardhead; fall/slate-fall-run Chinook salmon, Central Valley fall/late fall-run ESU; Western pond turtle; oak titmouse; ferruginous hawk; Lawrence's goldfinch; white-tailed kite; Lewis' woodpecker; osprey; Nuttall's woodpecker; rufous hummingbird; cliff swallow; ringtail; pale Townsend's big-eared bat; small-footed myotis bat; and Yuma myotis bat. Table C lists the special status wildlife species potentially present in the project area.

During the summer of 2001, Natural Resource Scientists, Inc. (NRS) conducted a riverbed survey for Tehama County to determine the presence or absence of potential anadromous salmonid spawning habitat in the vicinity of the Jelly's Ferry Bridge. The survey was performed 150 yards upstream and downstream from the proposed site for the new bridge. Results of that survey concluded that suitable spawning habitat was not present within the survey boundaries because of the high sand content in the riverbed gravels and cobbles.

Tehama County recommended that the 2001 survey be repeated during the summer of 2007 to determine any potential changes in fish spawning habitats over the last six years. In addition to spring- and winter-run Chinook and steelhead, the new survey was also necessary because of the concern over possible effects on the recently-listed threatened green sturgeon (*Acipenser medirostris*). All of these fish species are known to spawn in the Sacramento River. According to guidelines provided through prior consultation with the National Marine Fisheries Service (NMFS) and the California Department of Fish and Game (CDFG), the survey encompassed an area 150 yards upstream and downstream from the proposed site for the new bridge.

Potential anadromous salmonid spawning habitat is characterized as substrate of good to excellent quality for anadromous salmonid redd construction based on expected ease in redd construction, good structural integrity, and probable high egg survival. To be high quality, substrate would be predominately composed of gravel and small cobble ranging from approximately 1 to 6 inches in diameter with most particle sizes in the 2-4 inch range; very large cobbles, boulders, and fines (silt and sand) would be minimal based on observations of the surface of the riverbed (Vogel and Taylor 1987). Additionally, suitable substrate would have to be in locations where near-bed water velocities

Table C: Special-status Animal Species Potentially Present Within the Project Area

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
ANIMALS		
Invertebrates		
Antioch Dunes anthicid beetle (*Anthicus antiochensis*)	SC/--/--	***Unlikely within the project area.*** Endemic to the Antioch Dunes area. **Suitable habitat is not present within the project area.**
Sacramento anthicid beetle (*Anthicus sacramento*)	SC/--/--	***Unlikely within the project area.*** Habitat includes sand slip-faces among willows. Known only from dune area at mouth of Sacramento River; the western tip of Grand Island, Sacramento County; dunes near Rio Vista, Solano County; and Ord Ferry Bridge in Butte County. Not known from the project area. **Suitable habitat is not present within the project area.**
Vernal pool fairy shrimp (*Branchinecta lynchi*)	T/--/--	*Unlikely within the project area*. Occurs in vernal pools and seasonal wetlands. **Suitable vernal pool habitat not present within the project area.**
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	T/--/--	***Unlikely within the project area.*** Occurs in the Central Valley of California in association with the blue elderberry. No elderberry shrubs occur within or within 100 ft. of the project area. **Suitable habitat is not present within the project area.**
Vernal pool tadpole shrimp *(Lepidurus packardi)*	E/--/--	***Unlikely within the project area.*** Occurs in vernal pools and seasonal wetlands. **Suitable vernal pool habitat not present within the project area.**
California linderiella *(Linderiella occidentalis)*	SC/--/--	***Unlikely within the project area.*** Occurs in vernal pools and seasonal wetlands. **Suitable vernal pool habitat not present within the project area.**
Green sturgeon (*Acipenser medirostris*)	--/CSC/--	***Present within the project area.*** Occurs in the San Francisco Bay, San Pablo Bay, the lower San Joaquin River and Delta, the Klamath River, and the northern portion of the Trinity River in California. Spawns in fresh water in the main stem of large rivers, including the Sacramento River. Potential spawning habitat for green sturgeon in the immediate vicinity of the new bridge is a principal concern to avoid adverse impacts to the fish during bridge construction. Critical habitat for green sturgeon has not yet been designated. **Known from the Sacramento River.**
Delta smelt *(Hypomesus transpacificus)*	T/T/--	***Unlikely within the project area.*** Occurs in brackish and fresh water of large channels in the upper Sacramento-San Joaquin Estuary. **The project area is outside of this species' distribution**.

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
River lamprey (*Lampetra ayresi*)	--/CSC/--	***Present within the project area.*** Spawn in coastal streams and rivers. **Known from the Sacramento River.**
Hardhead (*Mylopharadon conocephalus*)	--/CSC/--	***Present within the project area.*** Occurs in low to mid-elevation streams in California up to 4,250 ft. Known primarily from the Central Valley. **Known from the Sacramento River.**
Steelhead, Central Valley ESU *(Oncorhynchus mykiss)*	T/--/--	***Present within the project area.*** Occurs in anadromous streams in northern California. Spawning habitat for steelhead is similar to that of Chinook salmon except that preferred spawning substrate is usually composed of slightly smaller particle sizes (McEwan and Jackson 1996). Steelhead spawn from late December through April or May (Hallock 1989). Potential spawning habitat for steelhead in the immediate vicinity of the new bridge is a principal concern to avoid adverse impacts to the fish during bridge construction. The Sacramento River is designated Critical Habitat for this species. **Known from the Sacramento River.**
Spring-run Chinook salmon, Central Valley spring-run ESU *(Oncorhynchus tshawytscha)*	T/T/--	***Potentially Present within the project area.*** Occurs in anadromous streams in northern California. Spring-run Chinook primarily spawn in Sacramento River tributaries but some limited spawning occurs in the mainstem; spawning occurs from mid-August to mid-October with a peak during September (Vogel and Marine 1991). Potential spawning habitat for spring-run Chinook salmon in the immediate vicinity of the new bridge is a principal concern to avoid adverse impacts to the fish during bridge construction. The Sacramento River is designated Critical Habitat and Essential Fish Habitat for this species. **Known from The Sacramento River.**
Fall/late-fall-run Chinook salmon, Central Valley fall/late fall-run ESU *(Oncorhynchus tshawytscha)*	SC/CSC/--	***Present within the project area.*** Occurs in anadromous streams in northern California. Needs cool, swift, shallow water with loose clean gravels for spawning. Spawning habitat is not present 150 yards up and downstream of the existing bridge, however potential rearing habitat is present (Vogel, 2001; see Appendix E). This species is not listed under the federal or state Endangered Species Acts within the Central Valley fall/late fall-run ESU, but was classified as a Species of Concern on April 15, 2004. The Sacramento River is designated Essential Fish Habitat for this species and is a Candidate for Critical Habitat for the species. **Known from The Sacramento River.**
Winter-run Chinook salmon, Sacramento winter run ESU *(Oncorhynchus tshawytscha)*	E/E/--	***Present within the project area.*** Occurs in anadromous streams in northern California. Winter-run Chinook are mainstem spawning salmon. Spawning activities begin in mid-April and continue to mid-August with peak spawning occurring during May and June (Vogel and Marine 1991). Potential spawning habitat for winter-run Chinook salmon in the immediate vicinity of the new bridge is

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
		a principal concern to avoid adverse impacts to the fish during bridge construction. No adult salmon were observed in the survey area and no active or old salmon redds were located indicating that winter-run Chinook had not spawned in the immediate vicinity of the bridge. The Sacramento River is designated Critical Habitat and Essential Fish Habitat for this species. **Known from The Sacramento River.**
Sacramento splittail *(Pogonichthys macrolepidotus)*	T/CSC/--	***Unlikely within the project area.*** Occurs in backwaters and pools of rivers and lakes in the San Francisco Bay Delta and the lower Sacramento River. May forage and spawn in tributaries to the Sacramento River. This species is not present north of Red Bluff. **The project area is outside of this species' distribution**.
Longfin smelt *Spirinchus thaleichthys*	SC/CSC/--	***Unlikely within the project area.*** May spawn in dead-end sloughs. This species is found in the Sacramento-San Joaquin Estuary and along the North Coast of California. **The project area is outside of this species' distribution**.
Amphibians and Reptiles		
Western pond turtle (*Clemmys marmorata*)	SC/CSC/--	***Potentially present within the project area.*** Occurs in slow-moving streams in a wide variety of habitat types below 1,800 m in elevation. Requires basking sites. The Sacramento River is suitable aquatic habitat and the grasslands are suitable nesting habitat within the project area. **Not observed during the field survey.**
California red-legged frog (*Rana aurora draytonii*)	T/CSC/--	***Unlikely within the project area.*** Habitat for this species includes quiet pools of streams, marshes, and ponds with emergent and overhead vegetation usually below 4,000 ft (1,220m). The banks of the Sacramento River represent the only habitat within the Study Area that possesses features typically associated with California red-legged frogs. The river provides a perennial source of water and its banks contain numerous refugia locations that could conceal adult frogs. There are no records of California red-legged frog within 5 miles (8 kilometers) of the Project Site and very few records of California red-legged frogs from the Shasta/Tehama counties area. LSA Associates, Inc. (LSA) did not observe any California red-legged frogs in the Project Site (or elsewhere in Project Site vicinity). **Suitable habitat is not present within the project area.**
Foothill yellow-legged frog (*Rana boylii*)	SC/CSC/--	***Unlikely within the project area.*** Habitat for this species includes partially shaded shallow streams and riffles with a rocky substrate (at least cobble-sized) up to 6,000 ft in a variety of habitats. **Suitable habitat is not present within the project area.**

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
Western spadefoot toad (*Scaphiopus hammondii*)	SC/CSC/--	*Unlikely within the project area*. Habitat for this species includes grasslands and ephemeral drainages for breeding from 0 to 4,500 ft. **Suitable habitat is not present within the project area.**
Birds		
Tricolored blackbird (*Agelaius tricolor*)	SC/CSC/--	***Unlikely within the project area.*** Nests colonially in the vicinity of freshwater marshes. Prefers dense stands of tules and cattails. Nesting habitat is not present within the area. **Suitable habitat is not present within the project area.**
Grasshopper sparrow (*Ammodramus savannarum*)	SC /--/--	***Unlikely within the project area.*** Occurs in dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches. **Suitable habitat is not present within the project area.**
Short-eared owl (*Asio flammeus*)	SC/CSC/--	***Unlikely within the project area.*** Usually found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Occasionally still breeds in northern California. **Suitable habitat is not present within the project area.**
Western burrowing owl (*Athene cunicularia hupugaea*)	SC/CSC/--	***Unlikely within the project area.*** Occurs in open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel) for burrows. No burrowing owls or potential dens observed during the survey. **Suitable habitat is not present within the project area.**
Oak titmouse (*Baeolophus inornatus*)	SC /--/--	***Present within the project area.*** Occurs primarily in association with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California. **Observed during the field survey.**
Aleutian Canada goose (*Branta canadensis leucopareia*)	T/--/--	***Unlikely within the project area.*** Only winters in the Central Valley of California. Forages in moist fields and aquatic habitats and roosts in the open waters of lakes or ponds. **Suitable habitat is not present within the project area.**
Ferruginous hawk (*Buteo regalis*)	SC/ CSC /--	***Potentially present within the project area.*** Only winters in California, foraging in grassland and agricultural habitats. **Not observed during the field survey.**

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
Swainson's hawk (*Buteo swainsoni*)	SC/T/--	***Potentially present within the project area.*** Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savanna. The riparian woodlands within the project area could serve as potential nesting habitat for this species. Land adjacent to the project area supports suitable foraging habitat (i.e., pasture and annual grasslands) and suitable nesting habitat (i.e., a few moderate sized cottonwood trees and oaks).
Lawrence's goldfinch (*Cardeulis lawrencei*)	SC /--/--	***Potentially present within the project area.*** Highly erratic and localized in occurrence; uncommon in foothills surrounding Central Valley. Breeds in open oak or other arid woodland and chaparral, near water. Typical habitats include valley foothill hardwood, valley foothill hardwood-conifer, and, in southern California, desert riparian, palm oasis, pinyon-juniper, and lower montane habitats. **Not observed during the field survey.**
Vaux's swift (*Chaeture vauxi*)	SC/ CSC /--	***Unlikely within the project area.*** Prefers redwood and Douglas-fir habitats with nest-sites in large hollow trees and snags, especially tall, burned-out stubs. Fairly common migrant throughout most of California in April and May, and August and September. **Suitable habitat is not present within the project area.**
Black tern (*Chilidonias niger*)	SC/ CSC /--	***Unlikely within the project area.*** Restricted to freshwater habitats while breeding. Not known to breed in the Central Valley. **Suitable habitat is not present within the project area.**
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	--/E/--	***Unlikely within the project area.*** Nests in extensive willow-dominated riparian forest with dense understory, along the broad, lower flood-bottoms of larger river systems. In the Sacramento Valley, also known to utilize orchards. Within the project area, the riparian habitat is unsuitable for nesting (i.e., it lacks understory development and significant stand size). **Suitable habitat is not present within the project area.**
Black swift (*Cypseloides niger*)	SC/ CSC /--	***Unlikely within the project area.*** Breeds very locally in four regions of California: the central and southern Sierra; the coastal cliffs and mountains of San Mateo, Santa Cruz, and Monterey counties; the San Gabriel, San Bernardino, and San Jacinto mountains of southern California; and a limited area in the Cascade Range. Nests have been found only on cliffs behind or adjacent to waterfalls or steep coastal cliffs. Forages widely over many habitats. **Outside the known range of the species and suitable breeding habitat is not present within the project area.**
Yellow warbler (*Dendroica petechia brewsteri*)	--/--/CSC/--	***Unlikely within the project area.*** Habitat for this species includes riparian plant associations, especially willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Would also nest in montane shrubbery in open conifer forests. Found

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
		between 0 and 8,000 ft. Known from three miles north of Sierra City. Willow habitat within the project area is of poor quality for the species (i.e., very thin with little mid and understory). **Suitable habitat is not present within the project area.**
White-tailed kite (*Black-shouldered kite*) (*Elanus leucurus*)	--/FP/--	***Potentially present within the project area.*** Habitat includes agricultural lands and open stages of most herbaceous habitats. Nests in dense oak, willow, or other tree stands. Not likely to nest near the bridge site due to human disturbance. **Not observed during the field survey.**
Little willow flycatcher (*Empidonax trailii brewsteri*)	SC/E/--	Unlikely within the project area. Habitat includes riparian areas and large, wet meadows with abundant willows for breeding. Usually found in riparian habitats during migration. No longer known to nest along the Sacramento River. Riparian habitat within the project area would be considered of marginal quality (i.e., few willows in isolated open/fragmented stands). Suitable habitat is not present within the project area.
American peregrine falcon (*Falco peregrinus anatum*)	D/E/--	***Unlikely within the project area.*** Nesting habitat for this species includes vertical cliffs with large potholes or ledges inaccessible to land predators, preferably close to large avian prey populations. Species sometimes forages in forested habitat. **Suitable habitat is not present within the project area.**
Bald eagle (*Haliaeetus leucocephalus*)	T, PD/E/--	***Potentially present within the project area.*** Occurs near large bodies of water or free-flowing rivers with abundant fish and snags or other perches nearby. Nests in large old-growth, especially Ponderosa pine, usually with less than 40% canopy. Suitable foraging habitat exists along the Sacramento River within the project area. No nests observed within or the project area or vicinity. **Not observed during the field survey.**
Yellow-breasted chat (*Icteriia virens*)	--/CSC/--	***Unlikely within the project area.*** Habitat for this species includes riparian thickets of willow and other brushy tangles near watercourses. Riparian habitat within the project area would be considered of marginal quality (i.e., few willows in isolated open/fragmented stands). **Suitable habitat is not present within the project area.**
Loggerhead shrike (*Lanius ludovicianus*)	SC/CSC/--	***Unlikely within the project area.*** Prefers open habitats, such as grassland and savannah with scattered shrubs, trees, posts, fences, utility lines, or other perches. Sensitive to human disturbance. Not known from the project area. **Suitable habitat is not present within the project area.**
Lewis' woodpecker (*Melanerpes lewis*)	SC/--/--	***Potentially present within the project area.*** Only winters in the vicinity of the project area. Habitat includes open deciduous and conifer habitats with brushy understory and scattered snags ad live

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
		trees. Prefers oaks in winter. **Not observed during the field survey.**
Long-billed curlew (*Numenius americanus*)	SC/ CSC /--	***Unlikely within the project area.*** Known to breed in wet meadow habitat in northeastern California in Siskiyou, Modoc, and Lassen Counties. Can winter in the Central Valley. Preferred winter habitats include large coastal estuaries, upland herbaceous areas, and croplands. **Suitable habitat is not present within the project area.**
Osprey (*Pandion haliaetus*)	SC/CSC/--	***Present within the project area.*** Nests in snags or cliffs or other high, protected sites near the ocean, large lakes, or rivers with abundant fish populations. An osprey nest is located on the existing bridge within the project area, however this nest has not been active for at least two years (B. Deuel, CDFG, pers. comm., 2/19/02). Nest was active with two young June and July 2007 (Observed by E.D. Pierson during bat surveys.) **Observed during the field survey.**
Nuttal's woodpecker (*Picoides nuttallii*)	SC/--/--	***Present within the project area.*** A common, permanent resident of low-elevation riparian deciduous and oak habitats. Found in dead (occasionally live) trunk or limb of willow, sycamore, cottonwood, or alder; rarely in oaks. Known from the Central Valley. **Observed during the field survey.**
White-faced ibis (*Plegadis chihi*)	SC/CSC/--	***Unlikely within the project area.*** Habitat for this species includes freshwater marshes and brackish areas. **Suitable habitat is not present within the project area.**
Bank swallow (*Riparia riparia*)	--/T/--	***Unlikely within the project area.*** Nesting habitat for this species includes bluffs, cliffs, and natural banks composed of sand or loamy soil conducive to burrowing. Suitable **habitat is not present within the project area.**
Rufous hummingbird (*Selasphorus rufus*)	SC/--/--	***Potentially present within the project area.*** Only occurs during spring and fall migration in the vicinity of the project area. Found in a wide variety of habitats that contain nectar-producing flowers. **Not observed during the field survey.**
California thrasher (*Toxostoma redivivum*)	SC/--/--	***Unlikely within the project area.*** Occupies moderate to dense chaparral habitats and, less commonly, extensive thickets in young or open valley foothill riparian habitat. **Suitable habitat is not present within the project area.**
Mammals		
Ringtail **(***Basariscus astutas***)**	--/FP/--	***Potentially present within the project area.*** **Found in** riparian forests, chaparral, brushlands, oak woodlands, and rocky hillsides. **Not observed during the field survey.**

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
Pallid bat (*Antrozous pallidus*)	FSS/CSC	***Likely within the project area.*** Highly associated with lower elevation oak woodland and savannah. Often roosts in hollows in oaks. Also roosts in some conifers, rock crevices and human structures, particularly bridges. Known to occur within a few kilometers of the project area. Potentially roosting in inaccessible areas of the Jelly's Ferry Bridge. **Not observed during the field survey.**
Townsend's big-eared bat (*Corynorhinus townsendii*)	SC/CSC/--	***Potentially present within the project area.*** Occurs throughout much of California. This species roosts primarily in caves and abandoned mines, but also in other man-made cavernous spaces (e.g., tunnels or attics of buildings). Does occur in low elevation oak woodland/savannah. Sometimes roosts in bridges. **Not observed during the field survey.**
Spotted bat (*Euderma maculatum*)	SC/CSC/--	***Unlikely within the project area.*** Occurs in a variety of habitats in California, including arid deserts, grasslands, and mixed conifer forests. A cliff-roosting species. **Project area occurs outside the known range of this species.**
Western red bat *(Lasiurus blossevillii*)	FSS/CSC	***Present in project area.*** Echolocation call for this species obtained at Jelly's Ferry Bridge 16 July 2007. A foliage roosting species. Breeding females are highly associated with mature cottonwood riparian in the Central Valley. Forages along the riparian edge and over the river. Record for breeding females within a few kilometers of project area. **Observed during field survey.**
Small-footed myotis bat (*Myotis ciliolabrum*)	SC/CSC/--	***Potentially present within the project area.*** Occurs over abroad elevational range. Thought to roost primarily in rocks crevices. Known from Sutter Buttes. Sometimes roosts in bridges. **Not observed during the field survey.**
Long-eared myotis bat (*Myotis evotis*)	SC/CSC/--	***Unlikely within the project area.*** Occurs in the Sierra Nevada and Central Coast within California, primarily in coniferous or mixed deciduous forest habitats. Roosts primarily in trees (hollows in snags or loose bark), but also in caves, buildings, and bridges. Roosts singly or in small groups. **Not observed during the field survey.**
Fringed myotis bat (*Myotis thysanodes*)	SC/CSC/--	***Potentially within the project area.*** Occurs in both the desert and forested habitats throughout much of California, primarily in coastal areas, and at low to mid-elevation in the Sierra Nevada, Klamath, and coast ranges. Roosts primarily in snags or hollows in large trees in northern California. Also roosts in caves, mines, and man-made structures. Sometimes roosts in bridges. Records exist for this species from similar habitat. **Not observed during the field survey.**

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS
Long-legged myotis bat (*Myotis volans*)	SC/CSC/--	***Potentially within the project area.*** Occurs throughout California, except in the Central Valley, primarily in woodland and forest habitats from 0-11,400 ft. Roosting habitat for this colonial species includes caves, rock crevices, buildings, snags, mines, and spaces under tree bark. Foraging habitat includes open water and open woodland areas. **Not observed during the field survey.**
Yuma myotis bat (*Myotis yumanensis*)	SC/CSC/--	***Present within the project area.*** A small (50-100) maternity colony for this species is roosting in a crevice at the north end of the bridge. Likely additional animals are roosting in span that is over water Occurs throughout California in a wide variety of habitats, primarily at lower elevations. Roosting habitat for this colonial species includes caves, buildings, mines, crevices, trees, undersides of bridges, and abandoned swallow nests. Species most highly associated with aquatic habitats, foraging primarily of small aquatic emergent insects. **Observed during the field survey.**
San Joaquin pocket mouse (*Perognathus inornatus*)	SC/--/--	***Unlikely within the project area.*** Occurs in dry grassland or scrub habitats with sandy or fine-textured soils suitable for burrowing between 1,100 and 2,000 ft. **Project area is outside the historic range and elevation range of this species.**
Mexican free-tailed bats (*Tadarida brasiliensis*)	USFS	***Present within the project area.*** A maternity colony of 500-600 bats roosts in a crevice towards the north end of the bridge. Several hundred non-volant young were observed in this crevice 16 July 2007. Observations conducted on 16 July 2007 confirmed that at least another 600-800 individuals of this species are roosting in other crevices across the span, predominantly at or close to the piers. Widely distributed in California. Highly colonial. Species most commonly found in bridges in California. Also roosts in rock crevices, caves, a variety of anthropogenic structures, and abandoned swallow nests. Foraging habitat includes open water **Observed during the field survey.**
Big brown bat (*Eptesicus fuscus*)	USFS	***Present within the project area.*** Observed roosting in crevices on underside of Jelly's Ferry Bridge in March 2002, June and July 2007. Small clusters (5-20) of animals were observed in several crevise in June and July 2007 at both the north and south ends of the bridge. Others were detected acoustically and observed emerging from portions of the span over water. Widely distributed in California. Roosting habitat for this colonial species includes snags, caves, mines, rock crevices, and a variety of man-made structures. One of the dominant species associated with bridges at low to mid-elevations in California. **Observed during the field survey.**

SPECIES	STATUS * (USFWS/ CA/CNPS)	COMMENTS

Status*
USFWS = U.S. Fish and Wildlife Service special-status species; USFS = U.S. Forest Service special-status species; CA = California Department of Fish and Game special-status species; CNPS = California Native Plant Society special-status species

Federal
E = Endangered
T = Threatened
PE = Proposed Endangered
PT = Proposed Threatened
FC = Federal Candidate (former Category 1 Candidate)
SC = Species of Concern (former Category 2 Candidate)
D = Delisted
PD = Proposed for Delisting
FSS = Forest Service Region 5 Forester's Sensitive Species List
FSE = Shasta-Trinity National Forest Endemic Species
WL = Forest Service Watchlist Plants
SM = Survey and Manage Species
PB = Protection Buffer Species

NOTE: Per a notice in the February 28, 1996 Federal Register, the USFWS has reviewed and altered the classification status of all candidate species. Former Category 1 candidates are now referred to as candidate species. The Category 2 candidate designation is discontinued. Former Category 2 candidates are now referred to as Species of Concern. Former Category 3 candidate species are not candidates for federal listing, and this designation is discontinued.

State
E = Endangered
T = Threatened
CE = Candidate Endangered
CSC = California Special Concern species
P = Protected
FP = Fully Protected

CNPS
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
List 3 = Plants about which we need more information--a review list
List 4 = Plants of limited distribution--a watch list

are sufficiently high for salmonid redd construction (1.5 to 2.5 feet/second) (Vogel and Marine 1991). Spawning habitat for steelhead is similar to that of Chinook salmon except that preferred spawning substrate is usually composed of slightly smaller particle sizes (McEwan and Jackson 1996).

Potential spawning habitat for winter-run Chinook, spring-run Chinook, steelhead, and green sturgeon in the immediate vicinity of the new bridge are principal concerns to avoid adverse impacts to the fish during bridge construction. Winter-run Chinook are mainstem spawning salmon. Spawning activities begin in mid-April and continue to mid-August with peak spawning occurring during May and June (Vogel and Marine 1991). Spring-run Chinook primarily spawn in Sacramento River tributaries but some limited spawning occurs in the mainstem; spawning occurs from mid-August to mid-October with a peak during September (Vogel and Marine 1991). Steelhead spawn from late December through April or May (Hallock 1989).

Green sturgeon spawning in the Sacramento River is believed to occur from March to July, peaking from mid-April to mid-June. Spawning takes place in deep, swift water and adult fish have been observed as far upstream as Red Bluff (Moyle 2002). Fish trapping by the USFWS at Red Bluff Diversion Dam has captured young-of-the-year green sturgeon indicating that these fish successfully spawn in the Sacramento River upstream of Red Bluff (USFWS 2002). Green sturgeon spawning habitat has not been well studied but is believed to occur in water deeper than 10 feet on substrate consisting of large cobble, but can range from clean sand to bedrock (Moyle 2002).

The habitat survey was performed on June 20, 2007 when the river flow was 13,000 cfs based on the U.S. Geological Survey river gauge no. 11377100 near Bend Bridge located downstream of Jelly's Ferry Bridge. There was a woody debris snag around the south bridge pier and a tree snag on the riverbed in the northwestern portion of the survey boundary which required considerable care to avoid hazards to the boat, camera, and cable apparatus.

No adult salmon were observed in the survey area and no active or old salmon redds were located indicating that winter-run Chinook had not spawned in the immediate vicinity of the bridge. Several rainbow trout (*O. mykiss*) were observed in the survey area but no trout redds were observed. Also, adult green sturgeon were not observed in the survey area and no potential spawning habitat was observed. Most of the riverbed in the survey area was not considered to be suitable salmonid or sturgeon spawning habitat primarily because of the coarse sand-embedded substrate. Most of the areas where velocities were sufficiently high for spawning possessed some gravels and cobbles but were dominated by very high concentrations of coarse sand rendering the areas unsuitable from spawning. The southwestern portion of the survey area was primarily bedrock in shallow water.

However, a small site on the downstream side of the bridge possessed potential salmonid spawning habitat judge to be of fair quality. The area is approximately 25 yards by 15 yards and is composed of cobble, gravels, and sand. Water velocities were estimated to be within the preferred range for salmonid spawning and depths ranged from 2.5 to 3 feet. Quality was judged to be fair (instead of good or optimal), primarily because of sand within the cobble/gravel interstices. The center of this area is 115 yards downstream of the existing bridge which may be outside of the potential zone of effect from new bridge construction upstream from the old bridge. If the fishery resource agencies believe this area is within the potential zone of effect on salmon spawning habitat, "anti-spawning" mats could be placed over the top of the substrate prior to the spawning period for species of concern to prevent fish from spawning at the site.

Table D: Native Fish Species in the Sacramento River in Tehama County and Population Status.

COMMON NAME	SCIENTIFIC NAME	STATUS (SEE BELOW)
California roach	*Lavinia symmetricus*	4
Chinook salmon	*Oncorhynchus tshawytscha*	4
green sturgeon	*Acipenser medirostris*	2
hardhead	*Mylopharodon conocephalus*	3
hitch	*Lavinia exilicauda*	4
Pacific lamprey	*Lampetra tridentata*	0
prickly sculpin	*Cottus asper*	5
Rainbow trout	*Oncorhynchus mykiss*	5
riffle sculpin	*Cottus gulosus*	5
river lamprey	*Lampetra ayresi*	2
Sacramento blackfish	*Orthodon microlepidotus*	5
Sacramento pikeminnow	*Ptychocheilus grandis*	5
Sacramento sucker	*Catostomus occidentalis*	5
speckled dace	*Rhinichthys osculus*	4
threespine stickleback	*Gasterosteus aculeatus*	4
tule perch	*Hysterocarpus traski*	4
Western brook lamprey	*Lampetra richardsoni*	3
white sturgeon	*Acipensar transmontanus*	5

Fish Status Ratings (defined by Dr. Peter Moyle, U.C. Davis)

Status	Meaning
0	Not specified
1	Threatened or endangered-usually formally listed but not always
2	Special concern-species is in decline or has very limited distribution
3	Watch list-species in decline but not yet in serious trouble. Monitoring needed
4	Species overall not in decline or in danger of extinction but has subspecies or distinctive populations that are
5	Species widespread and abundant

Source: California Rivers Assessment; http://ice.ucdavis.edu/California_Rivers_Assessment)

With implementation proposed project components, Special Provisions prepared for the proposed project and mitigation measures **BIO-1 through 8**, the impacts to the candidate, sensitive or special status species to a less-than-significant level.

> ***IV.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 U.S. Fish and Wildlife Service?*

The Mixed Riparian Forest and Herbaceous Riparian habitats within the project area would be considered sensitive natural communities because they are relatively rare in California and can serve as habitat for special-status species. Impacts to these habitat types would be considered potentially significant. Table E and Table F present the temporary and permanent impacts to these habitat types in the project impact area.

Mixed Riparian Forest within the project area lies within the floodplain of the Sacramento River. The Mixed Riparian Forest supports a greater variety of tree and shrub species than do other habitats in the project area. The diversity of plant species provides a variety of foods and microhabitat conditions for wildlife.

Herbaceous Riparian habitat within the project area is an herbaceous community dominated by the same plant species that form the understory of the adjacent tree-dominated riparian habitats. Herbaceous Riparian has high wildlife value because it provides high-quality forage and cover. Many wildlife species feed on grasses and forbs in the Herbaceous Riparian habitat, including deer, rodents, gamebirds, and songbirds.

Trees within the riparian habitat may need to be removed in which case those trees would be replaced at a ratio of 3:1 (refer to mitigation measure BIO-10). No local policies are established which affect this project and no habitat conservation plans exist for this area of Tehama County.

With implementation proposed project components, Special Provisions prepared for the proposed project and mitigation measures **BIO-3, 4 and 10 through 12**, the impacts to riparian habitat or other sensitive natural communities is expected to be reduced to a less-than-significant level. Additional mitigation would be implemented by Tehama County as required by the various permitting agencies involved in the project.

Table E: Temporary Impacts to Sensitive Natural Communities within the Project Area

Community Type	Approximate ft^2 of Temporary Disturbance
Mixed Riparian Forest	24,902 ft^2
Herbaceous Riparian	3,556 ft^2
TOTAL	**28,458 ft^2**

Table F: Permanent Impacts to Sensitive Natural Communities within the Project Area

Community Type	Approximate ft^2 of Permanent Disturbance
Mixed Riparian Forest	42,430 ft^2
Herbaceous Riparian	12,832 ft^2
TOTAL	**55,262 ft^2**

IV.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?*

A portion of the lands surrounding the existing bridge are categorized as Waters of the U.S. The proposed project would result in temporary and permanent impacts to wetlands and Waters of the U.S. No off-channel wetlands are expected to be impacted by the proposed project. Table G shows the (temporary/permanent) disturbance areas expect for the proposed project.

Table G: Temporary Impacts to Waters of the U.S. and CDFG Waters (in square feet)

	Location		
	North of Sacramento River	**South of Sacramento River**	**Total**
Waters of the U.S.			
Wetlands	28	0	**28**
Nonwetland Waters	53,423	60,212	**113,635**
Total Waters of the U.S.	53,452	60,212	**113,664**
CDFG Waters *	53,981	62,691	**116,672**

Table H: Permanent Impacts to Waters of the U.S. and CDFG Waters (in square feet)

	Location		
	North of Sacramento River	**South of Sacramento River**	**Total**
Waters of the U.S.			
Wetlands	1,938	0	**1,938**
Non-wetland Waters	37,806	101	**37,907**
Total Waters of the U.S.	39,743	101	**39,844**
CDFG Waters *	71,716	9,444	**81,160**

*CDFG Waters includes riparian habitat and Waters of the U.S. The proposed bridge footprint would result in direct impacts riparian habitat and Waters of the U.S. Impacts to this riparian habitat would be permanent, whereas impacts to these Waters of the U.S. would be temporary. Therefore, the area under the bridge is included in both the Table G and Table H. On the north side of the bridge, 9,983.71 square feet is included in both impact tables. On the south side of the bridge, 8,822.59 square feet is included in both impact tables.

Implementation of Mitigation Measure **BIO-12** would reduce impacts to a less-than-significant level.

> ***IV.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?*

Evidence of cliff swallow nest and Mexican free-tailed and big brown bat dwellings has been reported on the current Jelly's Ferry Road Bridge. Under the federal Migratory Bird Treaty Act and the California Fish and Game Code, the direct injury, death, or any construction-related disturbance that results in nest abandonment or forced fledging of individuals protected under the Act would be considered a significant impact.

The proposed project will not impede the use of a native wildlife nursery. However, the proposed project introduces a potentially significant impact with regards to wildlife movement. With implementation of the proposed project components, Special Provisions prepared for the proposed project and mitigation measures **BIO-1** through **BIO-12**, the impacts to movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors are expected to be reduced to a less-than-significant level.

Mitigation Measures

BIO-1: **Pre-construction Survey.** A pre-construction survey shall be completed by a qualified biologist in order to determine the presence and status of special-status species and their habitats within the project area. The results of the pre-construction surveys along with recommended take minimization measures shall be documented in a report and submitted to the USFWS and the CDFG. If necessary, the County shall implement specific take minimization measures as directed by the CDFG and the USFWS.

BIO-2: **Sensitive resources.** Environmentally sensitive resources, including areas outside of the bridge replacement project area along the Sacramento River, shall be fenced as appropriate and avoided during construction. Areas of sensitivity within 50 feet of proposed construction activities shall be fenced with high visibility orange mesh fencing. A qualified biologist shall be responsible for overseeing the avoidance of sensitive resources and the alerting of construction workers to the location of these resources.

BIO-3: **Construction Staging Area.** The construction staging area shall not be placed near the Sacramento River, or near riparian or wetland vegetation

BIO-4: **Special status plants**. The one Northern California black walnut that would be removed would be replaced in –kind.

BIO-5: **Special status fish.** In order to mitigate impacts to listed and non-listed fish habitat within the project area, including Critical Habitat and Essential Fish Habitat, the following measures would be implemented:

- The County would construct rock slope protection and retaining wall systems so as to minimize or avoid instream construction activities. Any unavoidable instream construction activities would be isolated from the stream flow through the use of cofferdams.

- The County would implement standard Best Management Practices to protect water quality and fish habitat (as recommended by the NMFS and CDFG).

- The County would implement the erosion and hazardous material controls included as part of the proposed project, the water quality protection measures discussed below and additional water quality protection measures included as permit stipulations.

- The County would implement any additional mitigation measures required by the NMFS and CDFG concerning special-status fish species.

- In addition, the County would be required to complete an informal Section 7 Technical Assistance with the NMFS concerning the federally listed steelhead, Central Valley ESU; spring-run Chinook salmon, Central Valley Spring-Run ESU; and the winter-run Chinook salmon, Sacramento Winter Run ESU. An informal Section 2081 consultation with the CDFG would also be completed for the winter run Chinook salmon. A Biological Evaluation will be prepared for the use of NMFS and CDFG in completing their endangered species consultations. Impacts to Critical Habitat would be addressed during the Section 7 consultations. Impacts to Essential Fish Habitat would be addressed concurrent with these consultations. It is expected that "may affect but not likely to adversely affect" would be the appropriate determination for listed salmonids potentially impacted by the proposed project.

- If in-river construction activities must take place outside of the June 1-September 1 construction window, a fish survey would be completed by a qualified biologist within a week of proposed construction activities. If listed fish are not present, then the NMFS and CDFG may allow the County to complete work outside the construction window (permission may vary week to week). Any mitigation required by the NMFS and the CDFG may be implemented by the County.

BIO-6: **Special-Status Amphibians and Reptiles.** Potential impacts to Western pond turtle would be minimized through limiting construction disturbance in and along the Sacramento River, implementing erosion and hazardous materials controls included as part of the proposed project, and implementing water quality protection measures. Additional water quality protection measures included as permit stipulations would be implemented by the County and would lessen potential impacts to habitat for this species.

BIO-7: **Special-Status Birds.** In order to mitigate impacts to listed and non-listed nesting birds within the project area the following measures would be implemented:

- A pre-construction survey to verify that the Swainson's hawk is not nesting within the vicinity of the proposed project should be completed in the spring prior to the commencement of construction activities. The biologist conducting the surveys would locate and map active nests within the project area for within 250 feet of its boundaries. If Swainson's hawk nests are found, appropriate mitigation measures should be implemented in consultation with the CDFG (e.g., limiting construction activities within the vicinity of the nests, etc., and, if necessary, completing a formal Section 2081 consultation).

- To prevent construction impacts to nesting cliff swallows, there are two alternatives, 1) bridge demolition could take place in September through February, outside the

swallow nesting season or, 2) bird netting or other material (such as chicken wire) could be placed over cliff swallow nesting sites to prevent them from nesting on the bridge. If alternative 2 is followed, exclusion material should be placed on the bridge during the non-breeding season. A biologist familiar with cliff swallow nesting biology should review the design for the placement of netting or chicken wire on the bridge to ensure that swallows will be excluded successfully. The cliff swallow exclusion could be conducted concurrent with the bat exclusion (see below). If these mitigation alternatives are not feasible, the County, with permission from the CDFG, shall monitor the bridge site and remove nests before they are completed by swallows. The new bridge will provide replacement nesting habitat (corners of cantilevered ledges) for cliff swallows. In addition, the County shall confer with the CDFG to finalize protection measures for cliff swallow nest sites.

- Completed nests with eggs or nestlings shall not be disturbed until the young have fledged.

- If the deck and piers are to be removed in separate phases, after removal of the existing bridge deck, a biologist should confirm that the existing piers do not continue to provide habitat for cliff swallows.

BIO-8: Special-Status Mammals. Impacts to bats would be minimized through the implementation of the following measures:

- If the portion of the existing bridge that is over land at the north end of the bridge is to provide shelter for construction personnel or activities, then humane exclusion of the bats may be desirable. The necessity for such exclusion would depend on how the staging area is to be used, and the manner and timing of exclusion should be determined in consultation with a bat biologist. Exclusion should be performed at a season when bat occupancy is likely at a minimum (October-early March) and outside the maternity season (April-September). Crevices used by bats would generally be filled (*e.g.*, backer rod and/or expanding foam insulation), and a bat biologist should be present during installation of exclusion measures to insure that no bats are present or to safely remove any that are. Surface applications of netting are often ineffective.

- While excluding bats from the spans over water is more difficult, the occupied areas appear to be limited and structurally consistent -- either crevices between two closely adjacent longitudinal timber supports or shorter zones of overlap between the ends of longitudinal timber supports where they rest on transverse I-beams. Exclusion should be designed to render the roosting areas unsuitable, so that the bats would not be harmed and would abandon the roosting areas on their own. The protocol would be established in consultation between the bridge engineers and/or contractors and a bat biologist. One possible option would be selective removal of the asphalt cap, exposing the bat roosts to penetrating winter rain and thus rendering them unsuitable. Exclusion should take place during a time of year when bat use is likely at a minimum (October-early March), and outside the maternity season (April-September).

- Replacement roosting habitat would be provided on the new bridge either through the modification of the bridge design or through the installation of on—site bat habitat. This replacement habitat would be designed in consultation with a bat biologist, and would be in place prior to demolition of the existing bridge.

- Additional surveys should be conducted at the times of year proposed for bat exclusion to gain a clearer understanding of the areas of the bridge being used and of the species expected to be present at the time of demolition.
- The success of the mitigation would be monitored by annual visits to the bridge by a bat biologist for three years following the installation of mitigation habitat.

BIO-9: **Sensitive natural communities**. As with upland vegetation, impacts to sensitive natural communities would be reduced to less than significant levels through the implantation of revegetation activities, erosion control, control of hazardous materials, and weed control proposed as part of the project. Additional mitigation would be implemented by Tehama County as required by the various permitting agencies involved in the project.

BIO-10: **Trees**. The County would replace native species of trees that are removed during construction that have a dbh of 15.2 (six inches) or larger. These trees would be replaced at a 3:1 ration. Native trees close to construction areas with a dbh of 15.2 cm (six inches) or larger than do not require removal would be fenced or otherwise marked so that they can be avoided during construction.

Replacement trees would be container-grown stock obtained from local nurseries. After construction is complete, the exact planting locations would be determined by the contractor in coordination with the County. After the tree planning is complete, the contractor would submit a report summarizing the mitigation planting to the County. This report would include an "as built" map delineating the locations, sizes, and types of trees planted. This information would be used in future monitoring activities by the County. The mitigation tree plantings would be monitored adequately to ensure the survival of the replacement trees.

BIO-11: **Upland Vegetation.** Impacts to vegetation would be reduced to less than significant levels through the implementation of revegetation activities, erosion control, control of hazardous materials, and weed control proposed as part of the project. Additional mitigation would be implemented by Tehama County as required by the various permitting agencies involved in the project.

BIO-12: **"Waters of the U.S."** A 404 Permit would be obtained from the ACOE, a 401 Water Quality Certification would be obtained from the RWQCB, and a 1602 Streambed Alteration Agreement would be obtained from the CDFG. These permits would be obtained prior to any disturbance associated with the construction of the bridge. In addition to the County and Caltrans guidelines for revegetation, erosion control, and water quality protection the stipulations of these permits would be adhered to in order to meet water quality objectives**.**

Therefore, with implementation of the listed mitigation measures, the proposed project is anticipated to have a less-than-significant impact on biological resources.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	❑	❑	■	❑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	❑	■	❑	❑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	■	❑	❑
d) Disturb any human remains, including those interred outside of formal cemeteries?	❑	■	❑	❑

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

LSA Associates updated cultural resource documentation prepared by Jennifer Nachmanoff, Hughes Environmental Consultants in 2002. These updated documents were consulted in the evaluation of this environmental document. Due to the sensitivity of cultural resources, the documents are confidential and available for review at the Tehama County PWD.

Tehama County constructed the existing Jelly's Ferry Road Bridge (Bridge No. 08C0043), a Pratt through-truss style bridge, in 1949. The proposed alternatives necessitate the removal of the existing Jelly's Ferry Road Bridge. The Caltrans Historic Bridge Inventory for Tehama County lists Jelly's Ferry Road Bridge as not eligible for listing on the National Register of Historic Places. However, the bridge was less than 50 years old at the time of the inventory. Since the bridge is now over 50 years old, it was re-evaluated in conjunction with this project. The bridge retains historic integrity, but lacks sufficient historical significance to meet the criteria for listing on the National Register or California Register and is not considered significant under CEQA.

The buildings located on the Table Mountain Ranch appear to be older than 45 years old. However, these buildings were evaluated and found to lack sufficient historical integrity and/or significance to meet the criteria for listing on the National Register or California Register and are not considered significant under CEQA.

A segment of an historic-era road (CA-TEH-1793-H), previously recorded within the project APE, was not relocated during field surveys of the APE. Extant portions of the road will therefore not be affected by the project. Furthermore, a preliminary evaluation indicates that the road is not likely to meet the criteria for listing on the National Register and California Register. However, since no project effects to this resource are anticipated, it was not formally evaluated for National Register or California Register eligibility.

Therefore, impacts to historical resources will be less-than-significant.

V.b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

No archaeological resources were identified within the project boundaries.

The proposed project is not expected to effect archeological resources, however, **CULT-1** and **CULT-2** will ensure that impacts to unanticipated archeological resources will be reduced to a less-than-significant level.

V.c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

No paleontological or geological features are identified within the project boundaries. According to the Geologic Map of California, Redding Sheet (California Division of Mines and Geology, 1962) the project lies on alluvium and Pleistocene non marine sedimentary material that are likely underlain by Pliocene volcanic material and Upper Pliocene non marine material. The Redding Sheet does not indicate that these units are paleontologically sensitive or unique geologic features.

The proposed project is not expected to effect paleontological resources, however, mitigation measure **CULT-3** will ensure that impacts unanticipated archeological will be reduced to a less-than-significant level.

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

The proposed project area does not include any known locations of human remains. However, mitigation measure **CULT-4** will ensure that impacts unanticipated archeological will be reduced to a less-than-significant level.

Mitigation Measures

CULT-1: **Known Archaeological Sites.** Known archeological sites shall be protected by fences and roadwork shall be directed away.

CULT-2: **Unanticipated Discoveries.** If deposits of prehistoric or historic archaeological materials, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics, wood or similar debris, are discovered during grading, trenching, or other on-site excavation(s), earthwork within 25 feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists (RPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as deemed necessary.

CULT-3: **Paleontological Resources.** If paleontological resources are uncovered during grading or other on-site excavation(s), earthwork within 25 feet of these materials shall be stopped until a certified professional archaeologist/paleontologist has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as deemed necessary.

CULT-4: **Native American Burials.** If human remains are encountered, work within 25 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to evaluate the situation. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of identification. The Native American Heritage Commission would identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the evaluation, a report shall be prepared documenting the methods and results, as well as recommendations for the treatment of human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the City and the Northwest Information Center.

Therefore, with implementation of the listed mitigation measures, the proposed project is anticipated to have a less-than-significant impact on cultural resources.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	❑	❑	❑	■
ii) Strong seismic ground shaking?	❑	❑	❑	■
iii) Seismic-related ground failure, including liquefaction?	❑	❑	❑	■
iv) Landslides?	❑	❑	❑	■
b) Result in substantial soil erosion or the loss of topsoil?	❑	❑	■	❑
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?	❑	❑	❑	■
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?	❑	❑	❑	■
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?	❑	❑	❑	■

VI.a) *Result in substantial soil erosion or the loss of topsoil?*

According to the Tehama County, California Soil Survey, the proposed project area includes riverwash, Redding gravelly loam, Colombia Sandy Loam and channelized Colombia Complex. The survey suggests constructing levees on riverwash to protect adjacent areas from scouring during floods. The Redding gravelly loam is a gravelly clay underlain by a hardpan with slow runoff and slight likelihood of erosion. Both the Colombia Sandy Loam and the channelized Colombia Complex are prone to erosion if bare of vegetation and subject to scouring if flooded.

Activities related to the construction of the bridge would result in general disturbance to upland soils within the project area, which may result in erosion. Removal of the existing bridge and excavation for and installation of the abutments for the new bridge may cause a significant increase in erosion of

soil and rock. As part of the proposed project, the established erosion control specification of the County and Caltrans would be implemented during construction in order to reduce impacts. Therefore, the project is not expected to result in substantial soil erosion or the loss of topsoil.

With implementation of the proposed project components, Special Provisions prepared for the proposed project and permitting requirements, the impacts to movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors are expected to be reduced to a less-than-significant level.

Mitigation Measures

None required.

Therefore, the proposed project is anticipated to have a less-than-significant impact on geology and soils.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
VII. HAZARDS. 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?	❑	❑	❑	■
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	❑	❑	❑	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	■	❑
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❑	❑	■	❑

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

Hazardous materials (e.g. fuel, lubricant, concrete curing materials) may be used during construction. These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. Construction-related activities have the potential to introduce oil, hydraulic fluid, sealant, concrete batching, and other chemicals into the

river. As part of the proposed project, a spill prevention plan would be implemented for potentially hazardous materials used within the project area. The plan would include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills.

The contractor would be required to comply with all applicable occupational health and safety standards, rules, and regulations. Additionally, specific requirements or restrictions upon construction activities would be implemented in accordance with agency-required mitigation measures. These mitigation measures would be included in the construction specifications to be provided by the County to the contractor.

All refueling and maintenance of construction vehicles and equipment would occur within the designated staging areas for the project, away from Sacramento River. The use of hazardous materials would be temporary and the proposed project would not include a permanent use or source of hazardous materials.

Measures within the Caltrans Standard Specifications are expected to reduce potential impacts to a less than significant level.

VII. 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?*

The project area's current and adjacent land uses include agriculture and scattered residential. Based on the Hazardous Waste Environmental Site Assessment prepared for the project, there are no known hazardous waste sites within or proximate to the proposed project site. However, this does not rule out the possibility of unrecorded, illegal dumping activities or impacts to the project area through contamination of groundwater from an off-site activity. Measures within the Caltrans Standard Specifications are expected to protect construction workers and general public from the potential release of hazardous materials and/or wastes.

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

Traffic would use the existing roadway alignment and bridge crossing during construction of the proposed project. Construction would be scheduled to limit interruptions. Public safety and emergency services would be kept informed of construction activities in order to plan emergency response routing, if necessary.

Measures within the Caltrans Standard Specifications are expected reduce potential impacts to emergency response plans or evacuations plans to a less than significant level.

VII.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?*

The warm, dry summer conditions of the project region put the vegetation at a risk to wild land fire. The nature of construction activity increases this fire hazard. The project proponents would carry on

site a suitable amount of fire extinguishing devices to adequately contain a fire caused by machinery or equipment being used during the projects operation. The proponent shall have the ability to contact local fire district dispatch, though the project does not involve a fire risk.

> Measures within the Caltrans Standard Specifications are expected to reduce potential impacts to a less than significant level.

Therefore, the proposed project is anticipated to have a less-than-significant impact associated with the accidental explosion or release of hazardous substance.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	❑	❑	■	❑
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	❑	❑	❑	■
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	❑	❑	■	❑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	❑	❑	■	❑
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?	❑	❑	■	❑
f) Otherwise substantially degrade water quality?	❑	❑	❑	■
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?	❑	❑	❑	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❑	❑	■	❑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	❑	❑	■	❑
j) Inundation by seiche, tsunami, or mudflow?	❑	❑	❑	■

A technical hydrologic analysis was prepared by Norman S. Braithwaite, Inc. and is used to assess project effects. The analysis is provided in Appendix A.

Proposed project components, Special Provisions prepared for the proposed project and the following requirements will be implemented as part of the proposed project.

Water Quality and Erosion Control Regulations. The proposed project would follow established Caltrans erosion control regulations (e.g. Standard Specifications Type D Erosion Control), including reseeding of disturbed upland areas. A spill prevention plan would be implemented for potentially hazardous materials used with the project area. In addition, the County would adhere to the site-specific water quality and erosion control measures required by the ACOE, RWQCB, and CDFG as part of permit stipulations. Detailed specifications for turbidity and erosion control would be discussed in the Special Provisions document for the proposed project.

Storm Water Pollution Prevention Plan (SWPPP). A Stormwater Pollution Prevention Plan shall be included in the construction documents that complied with the State Water Resources Control Board's (SWRCB) requirements for a General Construction Activity Storm Water Permit. The SWPPP would act as the overall program document designed to provide measures to mitigate potential water quality impacts associated with the implementation and operation of the proposed project. The SWPPP shall include:

(1) Specific and detailed BMP's designed to mitigate construction-related pollutants. Specific and detailed BMP's included in the SWPPP shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g. fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.

(2) Specific BMP's designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased if grading is performed during the rainy season, as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMP's selected shall focus on erosion control to keep sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Entry and egress from construction site shall be carefully controlled to minimize off-site tracking of sediment. Vehicle and equipment wash-down facilities shall be designed to be accessible and functional both during dry and wet conditions.

(3) A monitoring program will be implemented by the construction site supervisor that includes both dry and wet weather inspections.

(4) Measures shall be designed for all portions of the completed development to mitigate potential water quality degradation.

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

The proposed project would involve disturbance to perennial drainage along the Sacramento River, in addition to disturbance to adjacent upland and riparian vegetation. The resultant increases in erosion, sedimentation, turbidity, and potential for hazardous materials spills could significantly impact water quality. The water quality and erosion control goals for the proposed project are to prevent the loss of soil due to erosion and to prevent siltation and other adverse impacts to the Sacramento River.

Construction-related activities have the potential to introduce oil, hydraulic fluid, sealant, concrete batching, and other chemicals or projects into the river, which could impact water quality. Waste water would not be allowed to drain into the Sacramento River or any associated drainage channels in an uncontained and untreated manner.

With implementation of the proposed project components, Special Provisions prepared for the proposed project and standard requirements of a Storm Water Pollution Prevention Plan, the proposed project impacts are expected to be less-than-significant.

> ***VIII.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?*

This project removes gravels thereby disturbing the streambed and exposing fine material that normally settles in the lower sections of the streambed. This fine material has the ability to cause turbidity during the initial flows due to rainfall.

Activities related to the construction of the bridge would result in general disturbance to upland soils within the project area, which may result in erosion and sedimentation within the Sacramento River. Construction activities within the riverbed would result in disturbance to the substrate and a temporary increase in suspended sediments in the Sacramento River. As part of the proposed project, the established erosion control specification of the County an Caltrans would be implemented during construction in order to reduce the potential for impacts to "waters of the U.S." and aquatic habitats. Therefore, significant impacts to water quality are not expected to result from the proposed project.

Implementation of the proposed project components, Special Provisions prepared for the proposed project and standard requirements of a Storm Water Pollution Prevention Plan, would ensure regulatory compliance and reduce potential impacts related to erosion and siltation to a less-than-significant level.

> ***VIII.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?*

Grading activities and removal of gravel from the riverbed would slightly alter the drainage pattern and increase of impermeable materials would create more runoff. However, these impacts would not result in result in flooding on- or off-site.

Implementation of the proposed project components, Special Provisions prepared for the proposed project standard requirements of a Storm Water Pollution Prevention Plan, will further ensure that the project has no impact to impact on-site and off-site flooding.

> ***VIII.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?*

Except for the bridge structure, direct discharge of surface runoff to the Sacramento River and associated drainages would be avoided. Drainage from the bridge would drain directly into the Sacramento River. Drainage water would be allowed to flow off the elevated roadway and is unlikely to be concentrated. New and existing drainage facilities, including channels, swales, detention basins, culverts, and drop inlets would be sized to handle the anticipated flow from the proposed project.

With implementation of the proposed project components, Special Provisions prepared for the proposed project and standard requirements of a Storm Water Pollution Prevention Plan, the proposed project impacts are not expected to violate any water quality standards or waste discharge requirements.

VIII.h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

The Sacramento River is a large meandering gravel bed river in a well defined channel with a wide left overbank portions of which are within the 100-year floodplain. Peak flows for floods up to and including the most probable 100-year flood are substantially regulated by Shasta Dam located approximately 25-miles upstream. In the vicinity of Jelly's Ferry Road, the Sacramento River has been mapped for the National Flood Insurance Program (NFIP) using approximately study methods. The Sacramento River is also under the jurisdiction of the State of California Reclamation Board and is subject to the requirements of the board.

The proposed bridge structure does not increase the water surface profile of the Base Flood. The proposed bridge evaluated is capable of meeting the minimum hydraulic design standards recommended by FHWA and Caltrans. The bridge evaluated is capable of meeting the minimum hydraulic design standards recommended by the Reclamation Board.

The State of California Reclamation Board and FEMA require that temporary facilities be removed from the floodplain during the flood season. Additionally, if construction of the replacement bridge is to be conducted through a flood season, the flood risk resulting from the combination of existing and new bridge supports should be evaluated. Under certain conditions, the Reclamation Board may allow a variance for temporary construction facilities if it can be shown that the temporary facilities do not result in an increased risk of damage to structures or in increased risks to health and safety.

The Sacramento River has the ability to carry a significant volume of drift of all sizes up to large oak tree trunks. The minimum clearance for drift recommended by FHWA and Caltrans is the 50 YR WSE plus two feet for rivers. The Reclamation Board requires three feet. The proposed bridge evaluated provides much greater clearance for drift above the Caltrans design flood (most probable 50-year flood). The longer spans and fewer piers of the proposed bridge will reduce the potential for accumulation of drift at the new bridge.

The proposed project is within a 100-year flood zone, however would not adversely impede or redirect flood flow. Therefore, no mitigation is required.

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

Peak flows for floods up to and including the most probable 100-year flood are substantially regulated by Shasta Dam located approximately 25-miles upstream. The project would not result in an increased risk of loss injury or death involving flooding, including flooding of as a result of the failure of a levee or dam. Therefore, no mitigation is required.

Mitigation Measures

Therefore, the proposed project is anticipated to have less-than-significant impact associated with hydrology and water quality.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
IX. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	❑	❑	❑	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	❑	■
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	■

The project takes place on BLM property within land designated for crops and grazing. The proposed project is the replacement of an existing bridge and roadway realignment. The project will not create any new community divisions, conflict with any land use plan, policy or regulation, and will not conflict with any applicable habitat conservation plan or natural community conservation plan.

Mitigation Measures

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
X. 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?	❑	❑	❑	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❑	❑	❑	■

No known mineral resources exist within the project site. Therefore, the project will not result in the loss of mineral resources.

Mitigation Measures

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XI. 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?	❑	❑	❑	■
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	❑	❑	■	❑
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	■	❑
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	■	❑
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?	❑	❑	❑	■
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?	❑	❑	❑	■

Tehama County does not have specific guidelines or regulations pertaining to construction noise. The only sensitive receptor within the project is Cody McKenzie. The Gless Family home is vacant.

XI.b) *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?* **And;**

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

Long-Term. No permanent noise sources that would expose persons to excessive ground borne vibration or noise levels would be located within the project site. The roadway realignment will direct vehicles further from the sensitive receptor on the southeast side of the project. Therefore, implementation of the proposed project would not permanently expose persons within or around the project site to excessive ground borne vibration or noise.

Short-Term. Construction activities associated with implementation of the proposed project could temporarily expose persons in the vicinity of the project site to excessive ground borne vibration or ground borne noise levels. Only one sensitive receptor is within the project area.

Implementation of Mitigation Measure **NOISE-1** would reduce this impact to a less-than-significant level.

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

Long-Term. The proposed project is a replacement of an existing bridge and roadway and is not expected to generate an increase in ambient noise levels.

Short-Term. Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment, including but not limited to backhoes, graders, jackhammers, and cranes can reach high levels. On a daily basis, construction would take place normal weekday working hours. The County does not anticipate a need for night construction for the proposed project. Equipment operators and other construction personnel at the site will use ear protection as proscribed by Cal OSHA. The increase noise level will occur intermittently during the construction period and will cease once construction is complete.

Implementation of Mitigation Measure **NOISE-1** would reduce this impact to a less-than-significant level.

Mitigation Measures

NOISE-1. Construction equipment, such as compressors and generators, shall be located far from sensitive receptors. Impact tools and intake and exhaust ports on power construction equipment shall be muffled or shielded. Construction activities shall comply with appropriate noise-related ordinances and regulations, including Caltrans standards specifications Section 7-1.01I "Sound Control Requirements."

Therefore, with implementation of the listed mitigation measure, the proposed project is anticipated to have a less-than-significant impact to noise.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XII. 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)?	❑	❑	❑	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■

The proposed project is located within U.S. Bureau of Land Management (BLM) lands. The Tehama County General Plan designates the parcels as cropland and grazing land uses. No housing would be affected due to implementation of the proposed project.

Mitigation Measures

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XIII. 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:				
Fire protection?	❑	❑	❑	■
Police protection?	❑	❑	❑	■
Schools?	❑	❑	❑	■
Parks?	❑	❑	■	❑
Other public facilities?	❑	❑	❑	■

XIII. a) *Parks?*

The proposed project requires the relocation of part of the BLM Recreation Area facilities. Specifically, the existing restroom building will be removed and a new restroom building will be built on the other side of the bridge.

Mitigation Measures

No mitigation is required as this is a federally controlled item.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XIV. 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?	❑	❑	❑	■
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?	❑	❑	■	❑

XIV.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?

The proposed project requires the relocation of part of the BLM Recreation Area facilities. Also, a new boat access ramp will be installed on the north side of the Sacramento River and east side of the new bridge. (See Figures 3 and 4.)

The proposed project is anticipated to have a less-than-significant impact on existing recreation.

Mitigation Measures

No mitigation is required as this is a federally controlled item (Section 106).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	❑	❑	■	❑
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency on designated roads or highways?	❑	❑	■	❑
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?	❑	❑	❑	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	■	❑
e) Result in inadequate emergency access?	❑	❑	■	❑
f) Result in inadequate parking capacity?	❑	❑	❑	■
g) Conflict with adopted polices, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	❑	❑	❑	■

Standard Specifications require that adequate signage shall be posted warning boaters on the Sacramento River to be aware of construction activities. The Standards also require that prior to construction, the contractor would notify both police and fire of the limited access or possible highway closure.

XV.a) *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?* **And,**

XV.b) *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency or designated roads or highways?*

During construction, the existing Jelly's Ferry Road Bridge would remain open. During construction hours, additional contractor vehicles will be using Jelly's Ferry Road and the existing bridge. Construction equipment will be parked away from the existing right of way and the project is not expected to result in an unacceptable level of service standard.

After construction of the proposed project, the new bridge would be able to accommodate more traffic in comparison to the existing bridge. Therefore, increased vehicle trips or traffic congestion are not expected.

As part of the proposed project, construction would occur during non-peak hours, so as to not significantly impact traffic flow. The project proposes only one lane of travel would be closed at one time; thereby, allowing controlled through access. Therefore, the proposed project is expected to increase traffic to a less-than-significant level and will not exceed a level of service standard.

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

The bridge design will include a curve as it approaches the new bridge. The speed limit will be designated a safe speed considering this condition.

During construction, boaters on the Sacramento River will be exposed to construction activities. With the implementation of Standard Specifications, the proposed bridge project would create no known hazards to safety.

XV.e) *Result in inadequate emergency access?*

The existing Jelly's Ferry Road Bridge is expected to remain open during construction. However, closure of both lanes may be necessary on occasion. the implementation of Standard Specifications, the proposed bridge project would result in a less-than-significant-impact to emergency access.

Mitigation Measures

None required.

Therefore, the proposed project is anticipated to have a less-than-significant impact on transportation and traffic.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❑	❑	■	❑
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?	❑	❑	❑	■
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?	❑	❑	❑	■
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❑	❑	❑	■
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?	❑	❑	❑	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❑	❑	❑	■
g) Comply with federal, State, and local statutes and regulations related to solid waste?	❑	❑	❑	■

The project has the potential to reveal underlying utilities; however various Standard Specifications (described below) will reduce impacts to underlying utilities to a less-than-significant level.

Prior to construction, the project contractor shall identify any existing underground utilities on the project site. This identification service is provided for free by the Underground Service Alert. These utilities shall be avoided if possible.

If avoidance of the utilities is not possible, Right of Way planning requires that representatives from the utilities line operators and a representative from the County's Public Works Department shall meet on the project site and prepare a site specific utility line relocation plan to the satisfaction of the County Public Works Director. The line relocation guidelines shall be noted on the improvement plans and be included in all construction contracts involving the project site.

It is a Standard Specification that during construction, an on-site safety manager shall be designated to address any discovered release or accidental rupture of any pipelines or other utility lines, which

might occur during construction. The on-site safety manager shall obtain and keep in a readily available location the emergency response plans of utility line operators and the appropriate contact phone numbers for emergencies. The requirement shall be noted on the improvement plans and be included in all construction contracts for the review and approval of the County Public Works Director.

Mitigation Measures

None required.

Therefore, the proposed project is anticipated to have a less-than-significant impact on utilities and service systems.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-than-significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	❑	■	❑	❑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	❑	❑	■	❑
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❑	■	❑	❑

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As discussed in the preceding section, the proposed project could result in impacts to biological resources and cultural resources. However, mitigation would be implemented to reduce these impacts to less-than-significant levels.

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.)

When impacts are considered along with, or in combination with other impacts, the project-related impacts are less-than-significant. The proposed project would not add substantially to cumulative effects.

The impacts of the proposed project are individually limited and not cumulatively considerable. No other proposed or recently constructed development projects, including roadway projects, are known from the vicinity of the proposed project. The proposed project is an isolated bridge replacement project proposed in order to improve safety at the Jelly's Ferry Road crossing of the Sacramento River. The proposed project could add to the cumulative effects of any as of yet unknown future development within the project area, but the degree of these effects would be mitigated by the revegetation and other mitigation measures that would be implemented as part of the proposed project.

The intensity and duration of project effects would be relatively small, since the project would involve construction during two construction seasons along an already disturbed roadway corridor and since the permanent new disturbance would be relatively small. It is unlikely that the project would result in the loss of viability of species because 1) overall habitat quality within the vicinity of the project would be maintained, and 2) modifications to habitats would not occur to the extent that would be expected to limit populations.

Because of the level of expected effects and because the purpose of the project is to increase the safety of the roadway to accommodate only existing traffic (i.e., additional development and associated increases in traffic are not anticipated to result from the proposed project), significant cumulative impacts are not expected to result from the proposed project.

All environmental impacts that could occur as a result of the proposed project would be reduced to a less-than-significant level through implementation of the mitigation measures recommended in this Initial Study.

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

All impacts to human begins that could occur as a result of the proposed project would be reduced to a less-than-significant level through implementation of the mitigation measures recommended in this Initial Study

REPORT PREPARERS

LSA Associates, Inc.

Bill Mayer, Principal
Erin Berg, Assistant Planner
Kristin Granback, Assistant Planner

Other Preparers

Hughes Environmental Consultants

REFERENCES

California Rivers Assessment. July 23, 2007 <http://ice.ucdavis.edu/California_Rivers_Assessment> July 23, 2007

Geologic Map of California, Redding Sheet, 1962. California Division of Mines and Geology. Sacramento, California. (Fourth printing, 1978)

Historic Property Survey Report. Jennifer Nachmanoff, Hughes Environmental Consultants, October 2002 [Updated by Karin Goetter, LSA Associates, Inc. July 2007]

Hughes Environmental Consultants, 2002. Draft Initial Study/Environmental Assessment, October 25, 2002.

Hughes Environmental Consultants, 2002. Draft Natural Environment Study, October 25, 2002.

Natural Resource Scientists, Inc. Riverbed Survey of the Sacramento River in the Vicinity of Jelly's Ferry Bridge, July 2007.

Norman S. Braithwaite, Inc., 2003. Letter, Re: Jelly's Ferry Road over Sacramento River, July 18, 2002.

Soil Survey Tehama County, California. California USDA Soil Conservation Service in cooperation with UC Ag Experiment Station. May 1967.

APPENDIX A

HYDRAULIC ANALYSIS

NORMAN S. BRAITHWAITE, INCORPORATED
1050 WEST STREET
REDDING, CA 96001
PH: 530.245.0864 FAX: 530.245.0867

July 18, 2003

Tony Dubovik
Earthtech
655 University Ave., Suite 255
Sacramento, CA 95825

Re: Jelly's Ferry Road over Sacramento River, Tehama County.

Dear Tony:

We have completed our preliminary hydraulic analysis of candidate replacement structures for the Jelly's Ferry Bridge over the Sacramento River in Tehama County. The project Background, analysis, and conclusions are described below.

BACKGROUND

Sacramento River: The Sacramento River is a large meandering gravel bed river in a well defined channel with a wide left overbank portions of which are within the 100-year floodplain. Peak flows for floods up to and including the most probable 100-year flood are substantially regulated by Shasta Dam located approximately 25-miles upstream. In the vicinity of Jelly's Ferry Road, the Sacramento River has been mapped for the National Flood Insurance Program (NFIP) using approximately study methods. The Sacramento River is also under the jurisdiction of the State of California Reclamation Board and is subject to the requirements of the board.

Existing Bridge: The existing bridge is a one lane, 941.25-foot long (total), 5-span Pratt Truss bridge with a 10-span flat slab approach structure on the north end. The bridge is supported on reinforced concrete pier walls and abutments constructed perpendicular to the direction of travel. The existing bridge, however, is skewed approximately 30-degrees from perpendicular to the direction of flood flow.

ANALYSIS

Hydrology: Most probable 50- and 100-year flood peak flows of 183000-cfs and 205000-cfs respectively have been identified as most appropriate for bridge evaluation and design. The most probable 100-year flood peak flow is consistent with the Federal Emergency Management

Agency (FEMA) Base Flood in the Sacramento River along the Lake California development located upstream of the bridge. The flood of record since construction of Shasta Dam is 170000-cfs occurring on December 22, 1964. Although some flood flow leaves the Sacramento River channel at locations approximately 3-miles upstream of the Jelly's Ferry Road bridge during larger floods and re-enters the Sacramento River at a location approximately 1-mile downstream of the bridge, for the purposes of bridge evaluation and design, all flood flow is assumed to be confined to the river channel. The hydrologic analysis will be described in detail in the Design Hydraulic Study (DHS) report.

Existing Condition Backwater Model: A backwater model was prepared to represent existing hydraulic conditions in the Sacramento River. The Corps of Engineers' HEC-RAS program was used for the backwater model. Cross-sections used in the model were from a recent survey. Cross-sections were adjusted to account for skew as appropriate. The downstream water surface elevation was estimated using the normal depth method with a slope estimated from the slope of the river channel. Potential drift accumulation was addressed by assuming effective pier widths of 5.0-feet for the pier walls supporting the flat slab approach structure (actual width is approximately 1.5-feet) and of 8.0-feet for the piers supporting the trusses (actual width is approximately 4.0-feet). The backwater model accurately reproduced the water surface elevation of the river during low flow (water surface elevation measured on 5-16-2003).

Candidate Bridges: Three candidate replacement bridge structure types have been identified on two alignments. These include; (A) a four span (west alignment) or five span (east alignment) reinforced concrete haunched box girder structure, (B) a seven span reinforced concrete prismatic box girder structure, and (C), a six span steel girder structure. All candidate replacement bridges are supported on reinforced concrete piers and abutments. The east and west alignments cross the Sacramento River at skews of approximately 22.5- and 17-degrees from perpendicular to the direction of flood flow respectively. The structures are shown in attached figures.

Candidate Project Backwater Models: The candidate bridges were modeled by making a copies of the existing condition backwater model and replacing existing bridge data (with the exception of data representing the existing north approach fill) with data representing the candidate bridges. Although the soffit of the Alternative A bridges are arched, these bridges were modeled with a straight soffit at the elevation where the arch meets the piers. The assumption of a straight soffit in the backwater model does not affect the backwater model performance at this location. Drift assumptions for the candidate bridges included assuming effective pier widths of 15.0-feet and 11.0-feet for proposed bridge piers of 10.0- and 7.0-foot actual width respectively. Figures showing how the candidate bridges are represented in the backwater models are attached.

RESULTS

Results: Selected results of the preliminary backwater models are summarized in Table 1. The columns labeled "E_{100}" and "ΔE_{100}" represent the Base flood elevation and the change in base flood elevation respectively. Under the strict requirements of the NFIP, any project causing an

increase in Base flood water surface elevations must mitigate the impact and/or prepare a FEMA Letter of Map Revision (LOMR). The columns labeled "E_{100} w/ drift" and "Recl Board min soffit" represent the Base flood water surface elevation computed using a drift assumption at the project and the minimum soffit elevation to meet the requirements of the State of California Reclamation Board. The Reclamation Board requires that the soffit of the bridge be 3.0-feet above the Reclamation Board project flood (most likely the FEMA Base flood for this river). This requirement is somewhat soft, however, in that the Reclamation Board may consider the soffit to be the elevation above which 90-percent of the arch lays rather than the elevation where the arch meets the pier. The columns labeled "E_{50} w/ drift", "E_{FOR} w/ drift" and FHWA min soffit" represent the elevation of the most probable 50-year flood computed with a drift assumption, elevation of the flood of record computed using a drift assumption and the minimum soffit elevation to meet the recommendations of the Federal Highway Administration (FHWA) and Caltrans. FHWA and Caltrans recommend minimum soffit elevation of the bridge be 3.0-feet (for rivers) above the water surface elevation of the most probable 50-year flood or the flood of record, whichever is greater (other minimum soffit elevation criteria recommended by FHWA and Caltrans do not apply at this project). The FHWA and Caltrans minimum soffit elevation recommendation is strict in that it defines the minimum soffit as the lowest point where the arch or a deck low member intersects the pier. The bridge minimum soffit is the lowest soffit elevation of the bridge alternative. All elevations are at cross-section 4740 located approximately 300-feet upstream of the middle of the existing bridge. Figures identifying how the existing and candidate bridges are represented in the backwater models are attached. Flood profiles and stage discharge curves at Cross-section 4740 are attached for the existing condition (highest water surface elevations) and for Alternative 1a (lowest water surface elevations). Flood profiles and stage discharge curves for the other alternatives were omitted because the minor differences in water surface elevations do not show on the figures.

Table 1: Results

Project	E_{100}	ΔE_{100}	E_{100} w/ drift	Recl Board min soffit	E_{50} w/ drift	E_{FOR} w/ drift	FHWA min soffit	Bridge min soffit
Ex	347.17	na	347.37					
1a	346.97	-0.20	346.99	349.99	345.22	344.59	348.22	353.64
1b	347.13	-0.04	347.17	350.17	345.39	344.42	348.39	354.64
1c	347.02	-0.15	347.05	350.05	345.27	344.70	348.27	352.64
2a	346.98	-0.19	347.01	350.01	345.23	344.65	348.23	353.38
2b	347.13	-0.04	347.18	350.18	345.40	344.43	348.40	354.88
2c	347.17	-0.05	347.17	350.17	345.40	344.43	348.40	352.88

CONCLUSIONS

Flood Risk and FEMA: The candidate bridge structures do not increase the water surface profile of the Base Flood.

FHWA and Caltrans: All candidate bridges evaluated are capable of meeting the minimum hydraulic design standards recommended by FHWA and Caltrans.

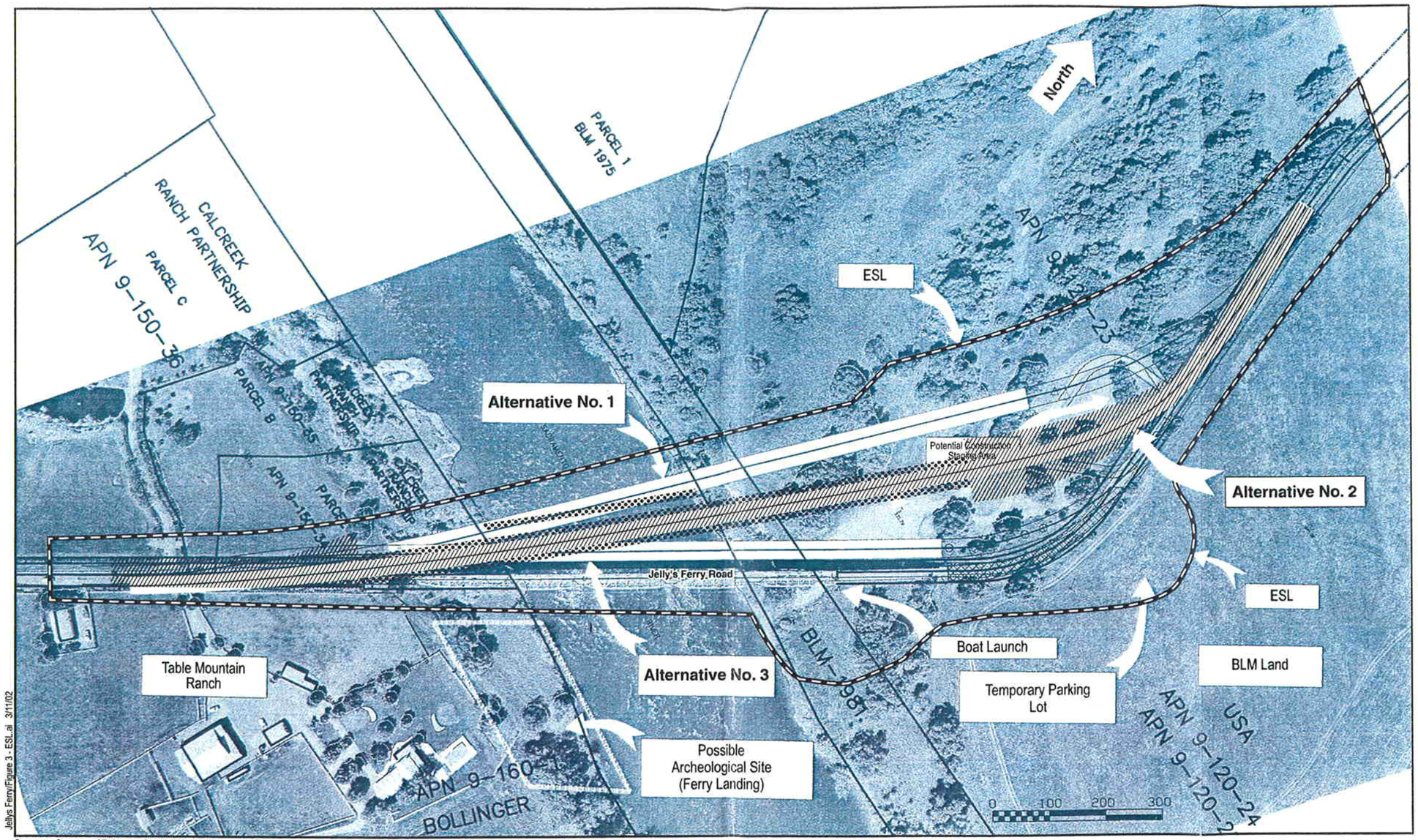
State of California Reclamation Board: All candidate bridges evaluated are capable of meeting the minimum hydraulic design standards recommended by the Reclamation Board. Other requirements of the Reclamation Board are attached.

Construction Period: The State of California Reclamation Board and FEMA require that temporary facilities be removed from the floodplain during the flood season. Additionally, if construction of the replacement bridge is to be conducted through a flood season, the flood risk resulting from the combination of existing and new bridge supports should be evaluated. Under certain conditions, the Reclamation Board may allow a variance for temporary construction facilities if it can be shown that the temporary facilities do not result in an increased risk of damage to structures or in increased risks to health and safety.

Drift: The Sacramento River has the ability to carry a significant volume of drift of all sizes up to large oak tree trunks. The minimum clearance for drift recommended by FHWA and Caltrans is 3.0-feet for rivers. All candidate bridges evaluated provide much greater clearance for drift above the Caltrans design flood (most probable 50-year flood). The longer spans and fewer piers of the candidate bridges will reduce the potential for accumulation of drift at the new bridge.

Sincerely,

Norman S. Braithwaite, P.E.
Civil Engineer

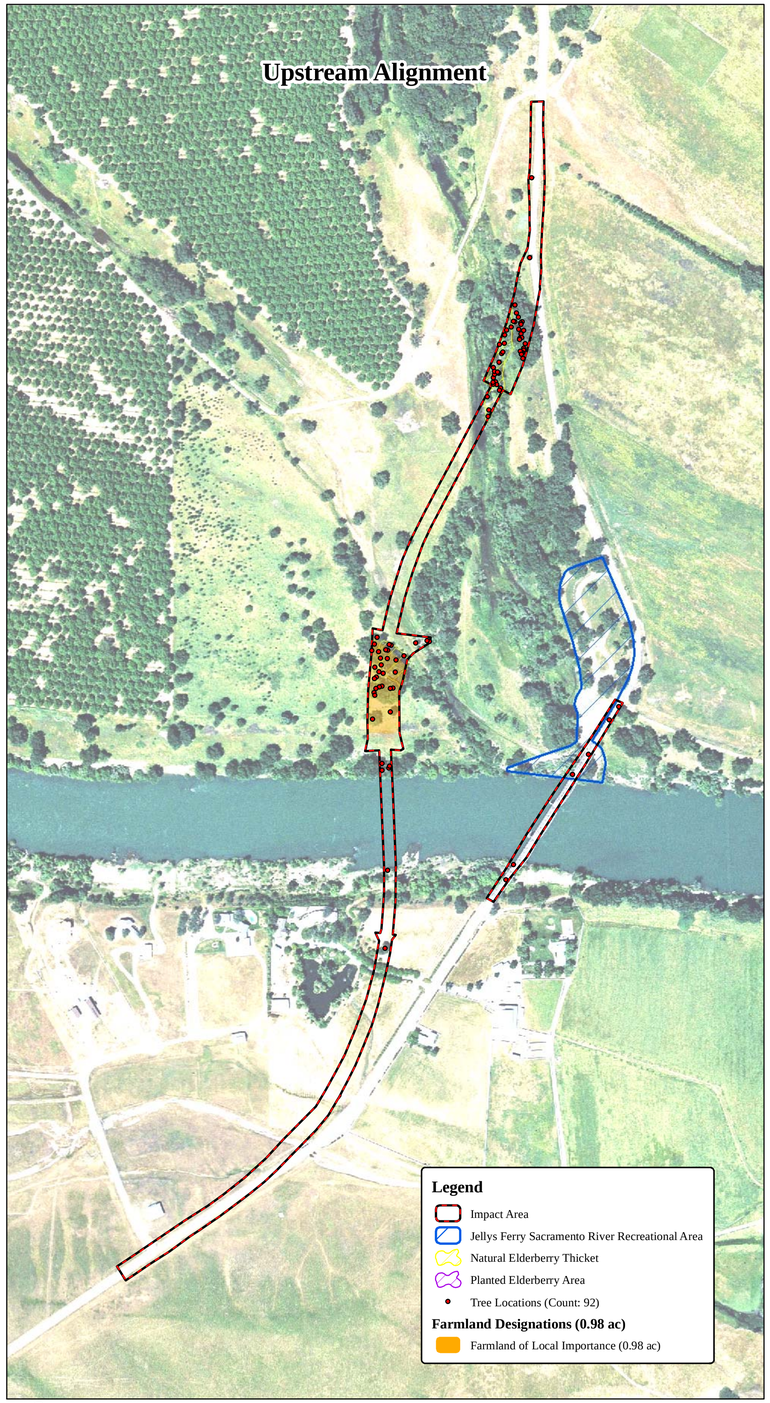


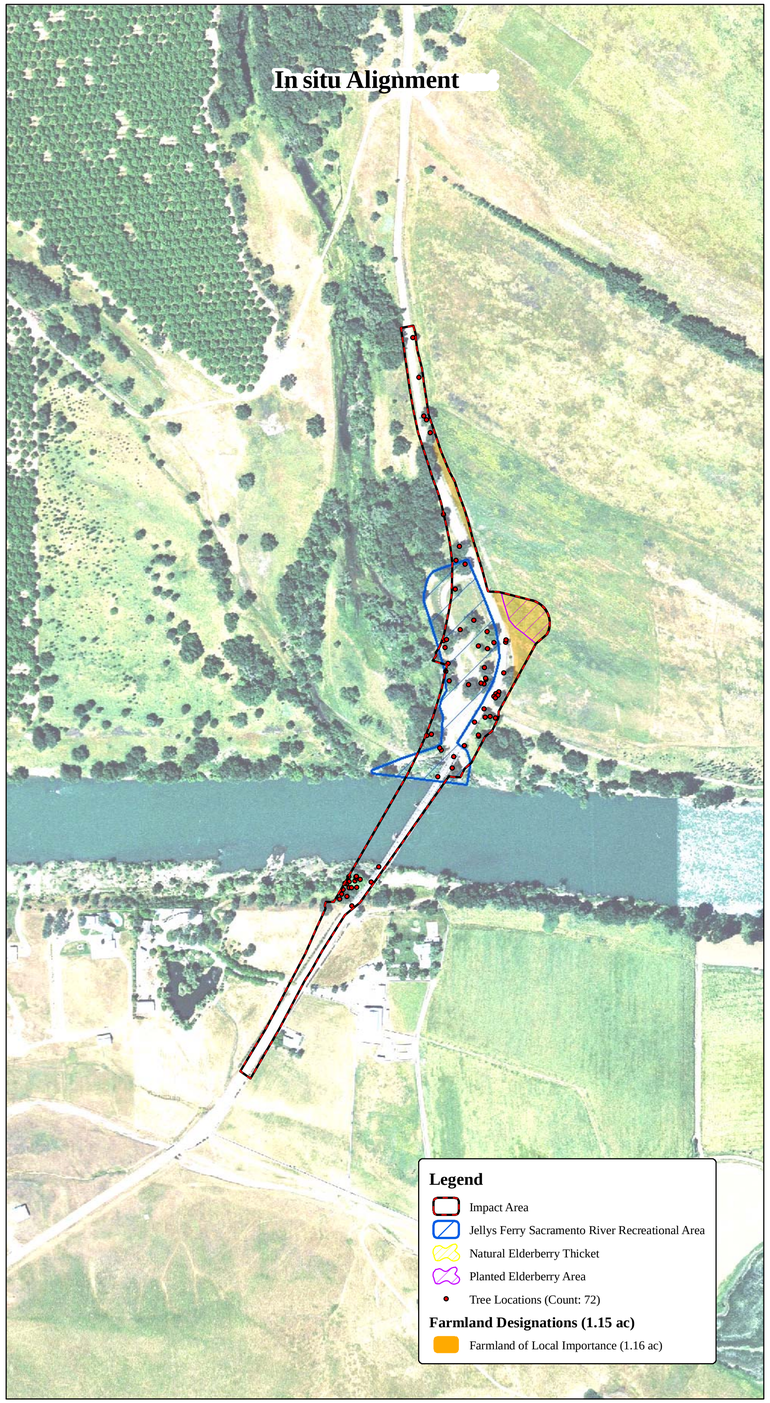
Source: County of Tehama, Public Works Agency

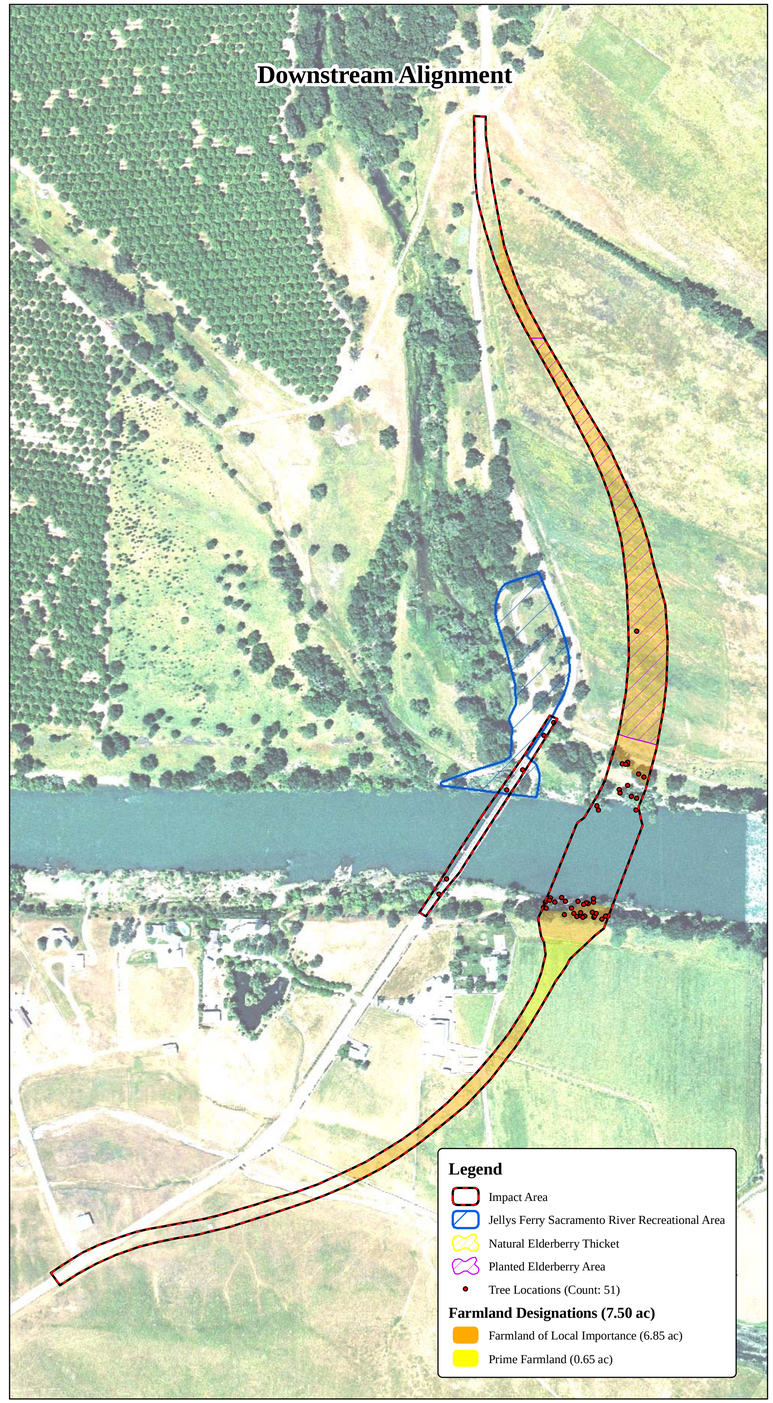
Legend

- Environmental Study Limits (ESL)
- Permanent Disturbance
- Temporary Disturbance

Figure 3b
Environmental Study Limits (ESL) - Alternative No. 2
Jellys Ferry Road Bridge Replacement Project







LSA

0 300 600
Scale In Feet

SOURCE: BASEMAP - AIRPHOTO USA AERIAL (MAY 2006); MAPPING - LSA ASSOCIATES, INC. (2008)
I:\Tyl0602\gis\velb&trees_constraints_impacts2.mxd (3/14/08)

Jellys Ferry Bridge Replacement
Proposed Alternatives Footprints Potential Constraints - VELB, Trees & Farmland

Notice of Determination

Appendix D

To:

■ Office of Planning and Research

U.S. Mail: P.O. Box 3044, Sacramento, CA 95812-3044

Street Address: 1400 Tenth St., Rm 113, Sacramento, CA 95814

■ County Clerk
County of: Tehama
Address: 633 Washington Street, Room 11
Red Bluff, CA 96080

From:
Public Agency: Tehama County Public Works Dept.
Address: 9380 San Benito Avenue
Gerber, CA 96035
Contact: Tim Wood, P.E., P.L.S.
Phone: 530-385-1462

Lead Agency (if different from above):
Address:
Contact:
Phone:

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2007082085

Project Title: Jelly's Ferry Road Bridge Replacement Project (Addendum to IS/MND)

Project Applicant: Tehama County Public Works

Project Location (include county): Jellys Ferry Rd over the Sacramento River

Project Description:

The Proposed Project consists of four elements: 1.) replacement of the existing bridge; 2.) realignment of Jellys Ferry Road; 3.) relocation of the BLM recreational facilities, and; 4.) development of the Overflow No. 2 Bridge.

This is to advise that the Tehama County Board of Supervisors has approved the above
(■ Lead Agency or ☐ Responsible Agency)

described project on June 24, 2014 (date) and has made the following determinations regarding the above described project.

1. The project [☐ will ■ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ■ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [■ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [■ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ■ was not] adopted for this project.
6. Findings [■ were ☐ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:
Tehama County Public Works Department Office, 9380 San Benito Avenue, Gerber, CA 96035

Signature (Public Agency): _____ Title: Deputy Director of Public Works

Date: 6/26/14 Date Received for filing at OPR:

RECEIVED
JUN 30 2014
STATE CLEARING HOUSE

Authority cited: Sections 21083, Public Resources Code.
Reference Section 21000-21174, Public Resources Code.

Revised 2011

MINUTE ORDER
BOARD OF SUPERVISORS
COUNTY OF TEHAMA, STATE OF CALIFORNIA

R E G U L A R A G E N D A

41. PUBLIC WORKS DEPARTMENT – Adoption of Findings; and Adopt the Addendum to the Negative Declaration
    a) Adopt the following findings for the revised Jellys Ferry Road Bridge Replacement Project at Sacramento River:
        1) That there are no substantial changes proposed in the project which would require major revision of the negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects
        2) That there are no substantial changes with respect to the circumstances under which the project is undertaken which will require major revisions of the previous negative declaration due to the involvement of new significant environmental effects
        3) That there is no new information of substantial importance, which was not known and could not have been know with the exercise of reasonable diligence at the time the previous negative declaration was adopted that shows any of the following:
            a) The project will have one or more significant effects not discussed in the previous negative declaration;
            b) Significant effects previously examined will be substantially more severe than shown in the previous negative declaration;
            c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
            d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous negative declaration would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Director Gary Antone showed a map of the area and explained where the project began and where it ended. He said after the required value analysis they realized the project needed to grow in size and showed where they will begin and end. In response to Supervisor Williams he said the overall length is a little over 5600 ft.

Director Gary Antone said the addendum covers the additional review and any changes that it would make. He said there are no new significant changes or impacts. He said there may be some additional mitigation or impacts but they center around the same items that were already identified.

Following additional comments about the crossing at Saron Fruit Colony Rd.;

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Dennis Garton, Supervisor - District 3
SECONDER:	Bob Williams, Supervisor - District 4
AYES:	Garton, Chamblin, Williams, Bundy, Bruce

b) Adopt the Addendum to the Negative Declaration prepared for the Jellys Ferry Road Bridge over the Sacramento River Bridge Replacement Project as meeting the requirements of CEQA and its guidelines.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Dennis Garton, Supervisor - District 3
SECONDER:	Bob Williams, Supervisor - District 4
AYES:	Garton, Chamblin, Williams, Bundy, Bruce

STATE OF CALIFORNIA)
) ss
COUNTY OF TEHAMA)

I, BEVERLY ROSS, County Clerk and ex-officio Clerk of the Board of Supervisors of the County of Tehama, State of California, hereby certify the above and foregoing to be a full, true and correct copy of an order adopted by said Board of Supervisors on the 24th day of June, 2014.

DATED: July 3, 2014

BEVERLY ROSS, County Clerk and
Ex-officio Clerk of the Board of Supervisors
of the County of Tehama, State of California

by Mackenzi Parkinson Deputy

ADDENDUM
CEQA INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JELLYS FERRY ROAD BRIDGE REPLACEMENT PROJECT

TEHAMA COUNTY, CALIFORNIA



LSA

June 2014

ADDENDUM
CEQA INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

JELLYS FERRY ROAD BRIDGE REPLACEMENT PROJECT

TEHAMA COUNTY, CALIFORNIA

Submitted to:

Tehama County Public Works Department
9380 San Benito Avenue
Gerber, CA 96035

Prepared by:

LSA Associates, Inc.
4200 Rocklin Road, Suite 11B
Rocklin, California 95677
916.630.4600

Project No. TYL0602

LSA

June 2014

TABLE OF CONTENTS

I. INTRODUCTION 1
A. DETERMINATION 1
B. BACKGROUND 1
C. PURPOSE OF THIS ADDENDUM 3
D. CEQA FRAMEWORK FOR ADDENDUM 3
II. PROJECT INFORMATION 4
A. DESCRIPTION OF ORIGINAL PROJECT 4
Original Project Location 4
Original Project Details 4
Original Project Construction Details 5
B. DESCRIPTION OF PROPOSED PROJECT 7
Proposed Project Location 7
Proposed Project Details 10
Proposed Project Construction Activities 17
C. COMPARISON OF ORIGINAL AND PROPOSED PROJECT 21
Resource Evaluations Not Previously Considered in the 2007 IS/MND 22
Forestry Resources 22
Greenhouse Gas Emissions 23
III. ANALYSIS OF POTENTIAL ENVIRONMENTAL EFFECTS 26
A. KEY RESOURCE TOPICS ANALYZED UNDER THE PROPOSED PROJECT 26
1. Aesthetics 26
2. Agricultural and Forestry Resources 28
3. Biological Resources 29
4. Cultural Resources 37
5. Greenhouse Gas Emissions 39
6. Hydrology and Water Quality 41
B. OTHER TOPICS EVALUATED IN THE 2007 IS/MND 45
1. Air Quality 45
2. Geology and Soils 47
3. Hazards and Hazardous Materials 48
4. Land Use and Planning 49
5. Mineral Resources 50
6. Noise 51
7. Population and Housing 52
8. Public Services 53
9. Recreation 54
10. Transportation/Traffic 54
11. Utilities and Service Systems 56
12. Mandatory Findings of Significance 59
C. MITIGATION MEASURES 60
1. Aesthetics 60
2. Agriculture and Forestry Resources 61
3. Air Quality 61
4. Biological Resources 63
5. Cultural Resources 71

6. Geology/Soils 72
7. Greenhouse Gas Emissions 73
8. Hazards and Hazardous Materials 73
9. Hydrology/Water Quality 73
10. Land Use/Planning 74
11. Mineral Resources 75
12. Noise 75
13. Population and Housing 75
14. Public Services 75
15. Recreation 75
16. Transportation/Traffic 75
17. Utilities and Service Systems 76
18. Mandatory Findings of Significance 76
IV. CONCLUSION 77
REPORT PREPARERS 78
REFERENCES 79

APPENDICES

A: NATURAL ENVIRONMENT STUDY
B: HYDROLOGY REPORT

FIGURES AND TABLES

FIGURES

Figure 1: Proposed Project Location Map 8
Figure 2: Proposed Project Vicinity Map 9
Figure 3a: Proposed Project Design 11
Figure 3b: Proposed Project Design 12
Figure 3c: Proposed Project Design 13
Figure 4: Elderberry Locations and ESA Fencing 68

TABLES

Table A: TCAPCD Ambient Air Quality Attainment Status (2012) 46
Table B: Native Seed Mix 63

I. INTRODUCTION

A. DETERMINATION

This document constitutes an Addendum to the July 23, 2007 Initial Study/Mitigated Negative Declaration (2007 IS/MND) (LSA Associates, 2007) originally prepared for the Jellys Ferry Road Bridge Replacement Project. This Addendum evaluates whether modifications/refinements to the proposed Project design would result in any new or substantially more adverse significant impacts or require any new mitigation measures not identified in the 2007 IS/MND.

B. BACKGROUND

The Original Project was formally evaluated in a 2007 IS/MND for the Jellys Ferry Road Bridge Replacement Project. The 2007 IS/MND was prepared pursuant to the California Environmental Quality Act (CEQA) and adopted by Tehama County.

Since approval of the 2007 IS/MND for the Original Project, Project engineers have studied a number of design concepts to accommodate a variety of Project constraints, standards, and policies, including the potential effects on Bureau of Land Management (BLM) Recreation lands in the northern Project area. Additionally, the Project design (including the bridge/roadway alignment, bridge length and width, pile/foundation requirements, design and placement of an Overflow No. 2 Bridge, and Jellys Ferry Roadway improvements) was modified through a detailed Value Analysis.

The purpose of the proposed Project is to provide a safe vehicular crossing over the Sacramento River on Jellys Ferry Road by replacing the existing structurally and seismically deficient bridge with a new bridge that meets current design standards. The proposed Project is to accomplish this purpose in accordance with the following requirements:

- comply with the Local Bridge Seismic Safety Retrofit Program;
- provide a bridge crossing that meets current highway design standards;
- accommodate regional and occasional interregional transportation needs including permit loads;
- meet the needs of a low volume bicycle corridor;
- avoid, minimize, and/or mitigate the Project effects on the environment; and,
- eliminate frequent overtopping of Jellys Ferry Road by overflow from the Sacramento River just north of the existing bridge.

Development of the Proposed Project would not increase vehicle capacity along Jellys Ferry Road compared to the design studied in the 2007 IS/MND and compared to existing conditions. Jellys Ferry Road, the new bridge over the Sacramento River, and Overflow No. 2 Bridge would not be widened beyond the existing right-of-way. The existing lane and shoulder widths would be widened along Jellys Ferry Road to current right-of-way standards and thus would not generate an increase in vehicle

capacity along Jellys Ferry Road within the Proposed Project boundary. The development of the Overflow No. 2 Bridge would be implemented to meet current hydraulic standards and to improve public safety along Jellys Ferry Road in the northern portion of the Proposed Project boundary. The Overflow No. 2 Bridge would be developed within the current right-of-way of Jellys Ferry Road and would not generate an increase in vehicle capacity.

The need for the proposed Project is summarized below:

It has been determined that the existing bridge, constructed in 1949, is vulnerable to collapse during an earthquake based on the seismic retrofit strategy report for the existing bridge, and that replacement is more cost-effective than seismic retrofit. The existing bridge is also structurally deficient and functionally obsolete and is reaching the end of its useful life. As such, replacement of the bridge is needed to improve public safety.

The bridge decks has substandard shoulder width and cannot accommodate legal or permit loads due to load limits and height limits due to the through truss design. As a result of load weight restrictions (17 T-V, 27 T-ST, 32 T-T/T) truck and trailer or double trailers from orchards north of the Project area transporting agricultural goods south either limit their loads or separate the loads to cross the structure and reattach them on the other side. Additionally, Saron Fruit Colony adjusts their loads in order to meet the load restrictions and travel over the Jellys Ferry Road Bridge. Currently the Jellys Ferry Road Bridge is the only structure on Jellys Ferry Road that limits load weights. It should be noted once the Proposed Project is operational load weight restrictions across the new structure would be lifted. Lifting the load weight restrictions once the Proposed Project is operational would not increase vehicle capacity along Jellys Ferry Road beyond the design carrying capacity of the roadway.

Over-height loads are routinely routed around Interstate 5 (I-5) due to height restrictions under the Balls Ferry Road Overcrossing (the height limit for this overcrossing is 14 feet 6 inches [14’6”]) and Main Street in Cottonwood due to the railroad underpass (the height limit for this underpass is 15 feet 1 inch [15’1”]). The alternative I-5 over-height route is through Redding via Highway 44 and Reno via Highway 395. Permitted loads could use Jellys Ferry Road; however, the Sacramento River Bridge at Jellys Ferry Road is height and weight limited. Tehama County routinely denies requests for permitted loads to travel over the existing structure along Jellys Ferry Road at the Sacramento River Bridge. It should be noted once the Proposed Project is operational height restrictions across the new structure would be lifted. Lifting the height restrictions once the Proposed Project is operational would not increase vehicle capacity along Jellys Ferry Road beyond the design carrying capacity of the roadway.

Currently the existing Jellys Ferry Road is overtopped by flooding from the Sacramento River in two locations: just north of the existing bridge abutment and further north in a low-lying area. Overtopping of the road at these locations is frequent (approximately every 2 years) and prevents residential and emergency response access for residents on the north side of the Sacramento River for periods of up to a week or more.

C. PURPOSE OF THIS ADDENDUM

The purpose of this Addendum is to evaluate whether the Proposed Project as currently designed would result in any new or substantially greater significant impacts or require any new mitigation measures not identified in the 2007 IS/MND for the Original Project. This Addendum to the 2007 IS/MND would be used by the Tehama County Board of Supervisors when considering approval of the Proposed Project.

D. CEQA FRAMEWORK FOR ADDENDUM

For a proposed modified project, State CEQA Guidelines (Sections 15162 and 15164) provide that an Addendum to an adopted MND may be prepared if only minor technical changes or additions are necessary **or** none of the following conditions calling for the preparation of a subsequent MND have occurred:

- Substantial changes in the Project which require major revisions to the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes with respect to the circumstances under which the Project is undertaken which require major revisions to the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could have been known with the exercise of reasonable diligence at the time of MND adoption, shows any of the following:
    - The Project would have one or more significant effects not discussed in the MND,
    - The Project would result in impacts substantially more severe than those disclosed in the MND,
    - Mitigation measures or alternatives previously found to be feasible would in fact be feasible and would substantially reduce one or more significant effect of the Project, but the Project proponent declines to adopt the mitigation measure or alternative, or
    - Mitigation measures or alternatives that are considerably different from those analyzed in the MND would substantially reduce one or more significant effects on the environment, but the Project proponent declines to adopt the mitigation measure or alternative.

The purpose of this Addendum is to evaluate the new design characteristics of the Proposed Project as a modification of the 2007 IS/MND for the Original Project and to demonstrate that the Proposed Project does not trigger any of the conditions described above. Based on the analysis provided below, the Proposed Project would not result in new significant impacts or substantially increase the severity of impacts previously identified in the 2007 IS/MND, and there are no previously infeasible alternatives that are now feasible. Therefore, an Addendum to the 2007 IS/MND is the appropriate CEQA document.

II. PROJECT INFORMATION

A. DESCRIPTION OF ORIGINAL PROJECT

The 2007 IS/MND assessed the proposed Jellys Ferry Road Bridge Replacement Project (Original Project) with a design that featured removal of the existing bridge and development of a new bridge on a shifted alignment; as well as approach/departure improvement work along approximately 500 and 800 feet of Jellys Ferry Road, south and north of the Jellys Ferry Road Bridge respectively. The following text provided below was included in the project description of the 2007 IS/MND for the Original Project.

Original Project Location

The Original Project site was located on Jellys Ferry Road over the Sacramento River approximately 7.5 miles from the junction of Interstate 5 and Jellys Ferry Road, in northern Tehama County. Specifically the Original Project is located at latitude 40.3146ºN and longitude 122.1884ºW. It should be noted that the Original Project is located in the same general vicinity of the proposed Project (as described in Section B below); however, the alignment of the Original Project differs from that of the proposed Project discussed throughout this Addendum.

Original Project Details

The Tehama County Department of Public Works proposed the Original Project in order to address public safety concerns associated with the existing seismically unsafe bridge crossing and reconfigure the roadway alignment to American Association of State Highway and Transportation Officials (AASHTO) standards. The Original Project would be funded from the Local Seismic Retrofit Program (Prop 1B) managed by the Federal Highway Administration (FHWA), the Highway Bridge Program (HBP), and the State Transportation Improvement Program (STIP) matching funds.

New right-of-way would be required from BLM in order to construct the Original Project. A right-of-way corridor with widths varying from 102 to 135 feet would be required for the approximately 3,000 feet of bridge construction and roadway realignment. Construction easements would also be needed at the crossing of the Sacramento River. New property fencing would be required along the new right-of-way limits for the length of the roadway realignment. The Original Project also included improvements to the BLM Recreation area that is located within the Original Project boundary.

Construction of the Original Project would be staged to allow circulation of existing traffic movements on Jellys Ferry Road. Once the proposed roadway alignment is graded, the proposed two-lane undivided bridge would be installed. A temporary steel trestle would be erected in order to provide access from both the north and south sides for bridge construction equipment, materials, and activity over the Sacramento River.

Bridge foundations would be located approximately 50 feet west (upstream) of the existing bridge and would consist of steel "H" piles or cast-in-drilled-holes (CIDH) concrete piles. These footings would support the construction of a new two-lane undivided bridge spanning approximately 1,096 feet long. The bridge would include 24-foot lanes and 4-foot shoulders. The new roadway would have a 1,150-foot long curved radius as it approaches the northern bank of the Sacramento River. The new bridge would be either a cast-in-place (CIP) pre-stressed box girder or a steel plate girder bridge.

Upon completion of bridge construction activities, 1,900 feet of roadway would be constructed, including laying the 4-inch thick Asphalt Concrete (Type A) pavement over an 8-inch Class 2 Aggregate Base, completing drainage improvements, and striping the roadway.

The Original Project would meet AASHTO standards for both horizontal and vertical alignments. Grading would include roadway excavation and embankment. Cut and fill slopes would be assumed at 1:2 ratio throughout the Original Project site. Rock slope protection (RSP) could be necessary along the north side of the Sacramento River within the Original Project site; however, it would be placed above the ordinary high water mark. A new boat ramp access would be installed as part of the Original Project in the BLM Recreation area.

Original Project Construction Details

Clearing and Grading of Jellys Ferry Road

This phase would consist of the removal of vegetation, drainage facilities, and existing structures for the entire length of the proposed roadway alignment. Existing ditches would be filled in and the area would be graded.

Construction of Bridge

Construction Contractor

Construction work for the Original Project would have been performed by a contractor selected by the Tehama County Public Works Department. Two to 25 workers would be employed throughout the duration of the Original Project. The County or its contractor would obtain all required licenses, permits, and approvals necessary for the performance of the work. The contractor would be required to comply with all applicable occupational health and safety standards, rules, and regulations. Additionally, specific requirements or restrictions upon construction activities would be implemented in accordance with agency-required mitigation measures.

Construction Schedule

Construction of the Original Project would last approximately 17 months, with construction scheduled to have begun in July 2009 and end in November 2010. Construction in the Sacramento River would last approximately eight weeks. Construction activities during this period would include driving piles, placing cofferdams, and conducting any other activities that may cause turbidity in the river. Once cofferdams and piles are in place, work could continue "inside" the cofferdam or above water level. The contractor would be able to work during daylight hours. Additionally, in some

instances, the contractor would be able to work during the nighttime hours to complete detour maintenance/traffic control.

The County would adhere to the June 1-September 1 in-river construction window determined in consultation with the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) (formerly known as the California Department of Fish and Game [CDFG] when the 2007 IS/MND was approved) who have jurisdiction over the anadromous fish species potentially present within the Original Project area. Cofferdams, false work, and trestles constructed during this time period would be allowed to remain in the river as necessary until the following in-river construction season. Work within completed cofferdams or on completed false work and trestles would be allowed outside of the in-river construction window. Once the bridge and roadway realignment construction was completed, the existing Pratt through truss style 1949 Bridge No. 8C-0043 would be removed.

Traffic Diversion

Traffic would use the existing roadway alignment and bridge crossing during construction of the Original Project. Construction would be scheduled to limit interruptions. Public safety and emergency services would be kept informed of construction activities in order to plan emergency response routing, if necessary. The trailhead parking area would provide temporary parking during construction of the bridge.

Construction Staging Area

A central staging area, including a temporary office trailer and a parking area for construction workers and equipment, would be needed during construction of the Original Project. The precise location of the staging site has not been determined, although it would most likely be located on BLM Recreation land northwest of the existing bridge. The BLM has agreed to provide an easement for the use of this property during Original Project construction. Another possible construction staging area would be within the agricultural field southwest of the existing bridge. Following project completion, the construction staging area would be reclaimed. The staging area would be located outside the waters of the U.S. It is not expected that tree removal would be necessary within the staging area.

Construction Equipment and Vehicles

Specific construction equipment and vehicles to be used at the Original Project site would largely be determined by the construction contractor. Equipment expected to be used may include pick-up trucks, dump trucks, backhoes, water trucks, truck-mounted drills, cranes, pile driving rigs, concrete delivery trucks, graders, asphalt concrete paving machines, and service vehicles.

Disposal of Excavated Material/Importation of Fill Material

Soils would be imported into the Original Project site for use as fill. The construction contractor, under County oversight, would be responsible for securing a source of fill material, transporting both excavated and imported materials, and disposing of excavated materials. Excavated soil that is uncontaminated and free of debris would be used for fill in creating the roadway embankment.

Excavated and fill materials would be carefully segregated to avoid reuse of potentially contaminated soils. Solid debris from the construction site or from other activities associated with the proposed activities would be kept out of the Sacramento River and associated drainages.

Other Construction Waste

Liquid construction waste would be disposed of in a proper manner. Petroleum-based compounds would be contained and removed to an acceptable off-site disposal location. Wastewater from concrete and other construction activities would not be allowed to drain into the Sacramento River or any associated drainage channels in an uncontained and untreated manner. Washing of construction vehicles or other equipment in drainage paths to the Sacramento River would be prohibited. A spill prevention plan would be implemented for potentially hazardous materials used within the project area (e.g., oil, hydraulic fluid, sealant, and concrete batching). The plan would include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting of any spills. In addition, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared to protect water quality and approved by the Regional Water Quality Control Board prior to construction. Solid debris from the construction site or from other activities associated with the proposed activities would be kept out of the Sacramento River and associated drainages.

Drainage Design

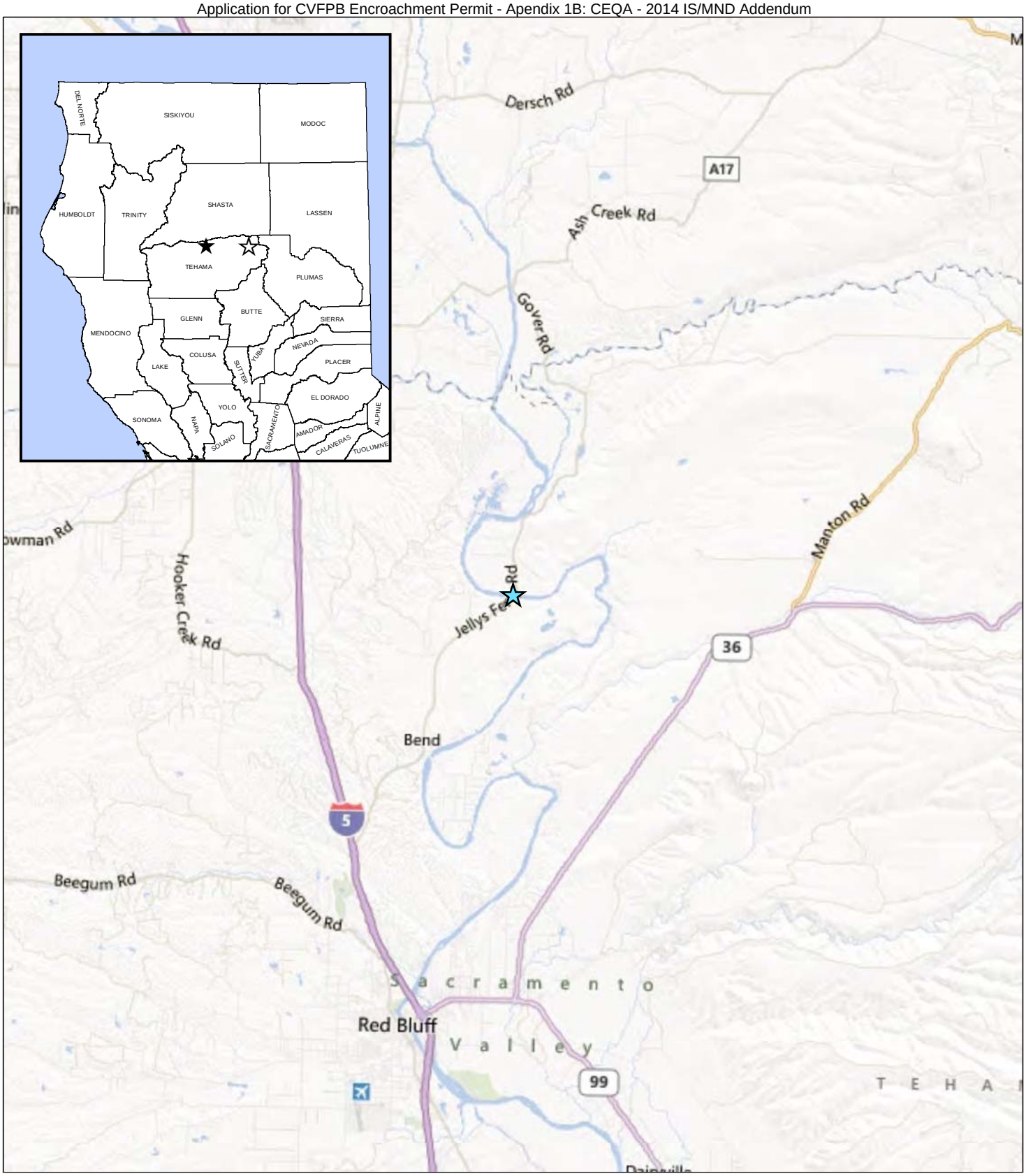
Except for the bridge structure, direct discharge of surface stormwater run-off to the Sacramento River and associated drainages would be avoided. Drainage from the bridge would drain directly into the Sacramento River. Drainage water would be allowed to flow off the elevated roadway and is unlikely to be concentrated. New and existing drainage facilities, including channels, swales, detention basins, culverts, and drop inlets would be sized to handle the anticipated flow from the Original Project.

B. DESCRIPTION OF PROPOSED PROJECT

Proposed Project Location

The Proposed Project is located in the same area as the Original Project; however, Proposed Project elements, such as the Jellys Ferry Road, Jellys Ferry Road Bridge, and Overflow No. 2 Bridge would be shifted when compared to the location of the Original Project. The Proposed Project is located at the crossing of Jellys Ferry Road over the Sacramento River, approximately 9 miles north of Red Bluff and 7.5 miles east of Interstate 5, in northern Tehama County, California. Figure 1: Proposed Project Location Map and Figure 2: Proposed Project Vicinity Map shows the location of the Proposed Project on a regional and local scale.

The Proposed Project is partially located on BLM Recreation lands and new right-of-way would be required from the BLM in order to construct the Proposed Project. The final decision to proceed with the project as proposed would not be made until Tehama County Board of Supervisors approves the new and temporary right-of-way agreements between the County and the Bureau of Land Management.



LSA

FIGURE 1

LEGEND

Proposed Project Location

N

0 1.5 3
MILES

Jellys Ferry Road
Bridge Replacement Project

SOURCE: Microsoft Bing Map - Roads (2010)

Proposed Project Location Map

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LSA

LEGEND

Proposed Project Boundary

FIGURE 2

N

0 1000 2000
FEET

Jellys Ferry Road
Bridge Replacement Project

SOURCE: Microsoft Bing Aerial (2010)

Proposed Project Vicinity Map

I:\Tyl0602\AI\IS-MND Addendum\Figure 2.ai (4/30/2014)

Proposed Project Details

The Proposed Project consists of four elements: 1.) replacement of the existing bridge; 2.) realignment of Jellys Ferry Road; 3.) relocation of the BLM recreational facilities, and; 4.) development of the Overflow No. 2 Bridge. The preliminary design, construction methods, and construction staging are described in the following paragraphs.

Existing Bridge

The existing bridge is a 21-foot wide, 940-foot long, curved chord, steel through Pratt truss bridge that was built in 1949. A 30-foot long and 350-foot long approach exists on the south and north side of the bridge, respectively. The bridge consists of 5 main truss spans of 150 feet in length and 10 timber approach spans of 18 to 19 feet in length at the north end.

Proposed Project Funding Sources

The Proposed Project is funded by the Federal Highway Bridge Program, the Local Seismic Safety Retrofit Program, and the State Transportation Improvement Program.

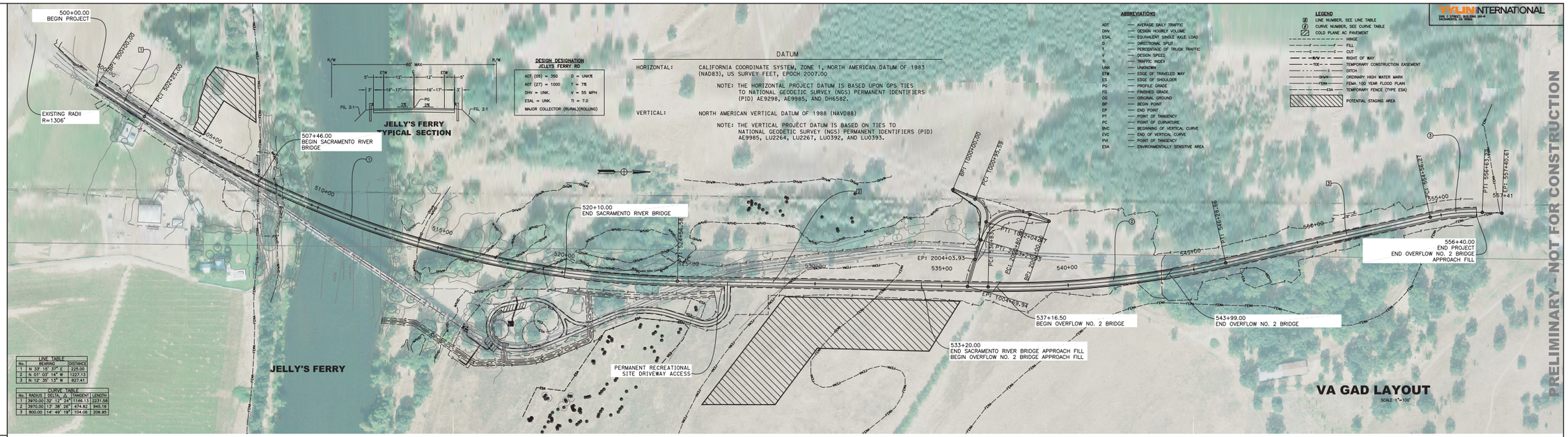
Proposed Project Characteristics

The Proposed Project requires the realignment of a portion of Jellys Ferry Road and temporary and permanent modification of a portion of the adjacent BLM Recreational facilities in order to construct the new bridge over the Sacramento River channel. Overflow from the Sacramento River at the Overflow No. 1 location (just north of the existing north abutment) is conveyed through the Jellys Ferry Road Bridge while overflow at the Overflow No. 2 location (further to the north of the existing north abutment) would be conveyed through an additional Overflow No. 2 Bridge. The preliminary design, construction, and staging methods are described in the following paragraphs. Figures 3a-d: Proposed Project Design shows the preliminary design of the Proposed Project.

The proposed new bridge and roadway alignment would begin approximately 4.3 miles north of the intersection with Bend Ferry Road, 800 feet south of the existing bridge and would end immediately south of the intersection with Saron Fruit Colony Road.

The south approach to the new Jellys Ferry Road Bridge would be approximately 800 feet in length with a maximum embankment fill height of approximately 6 to 10 feet. The north approach would be approximately 1,300 feet in length with a maximum embankment fill height of approximately 20 feet. The north approach roadway for the Jellys Ferry Road Bridge would be raised to prevent overtopping north of the existing abutment.

The proposed Overflow No. 2 Bridge would prevent frequent overtopping in the low-lying area of Jellys Ferry Road north of the proposed Jellys Ferry Road Bridge north approach by passing flow from the adjacent Sacramento River overflow channel under this second bridge structure.



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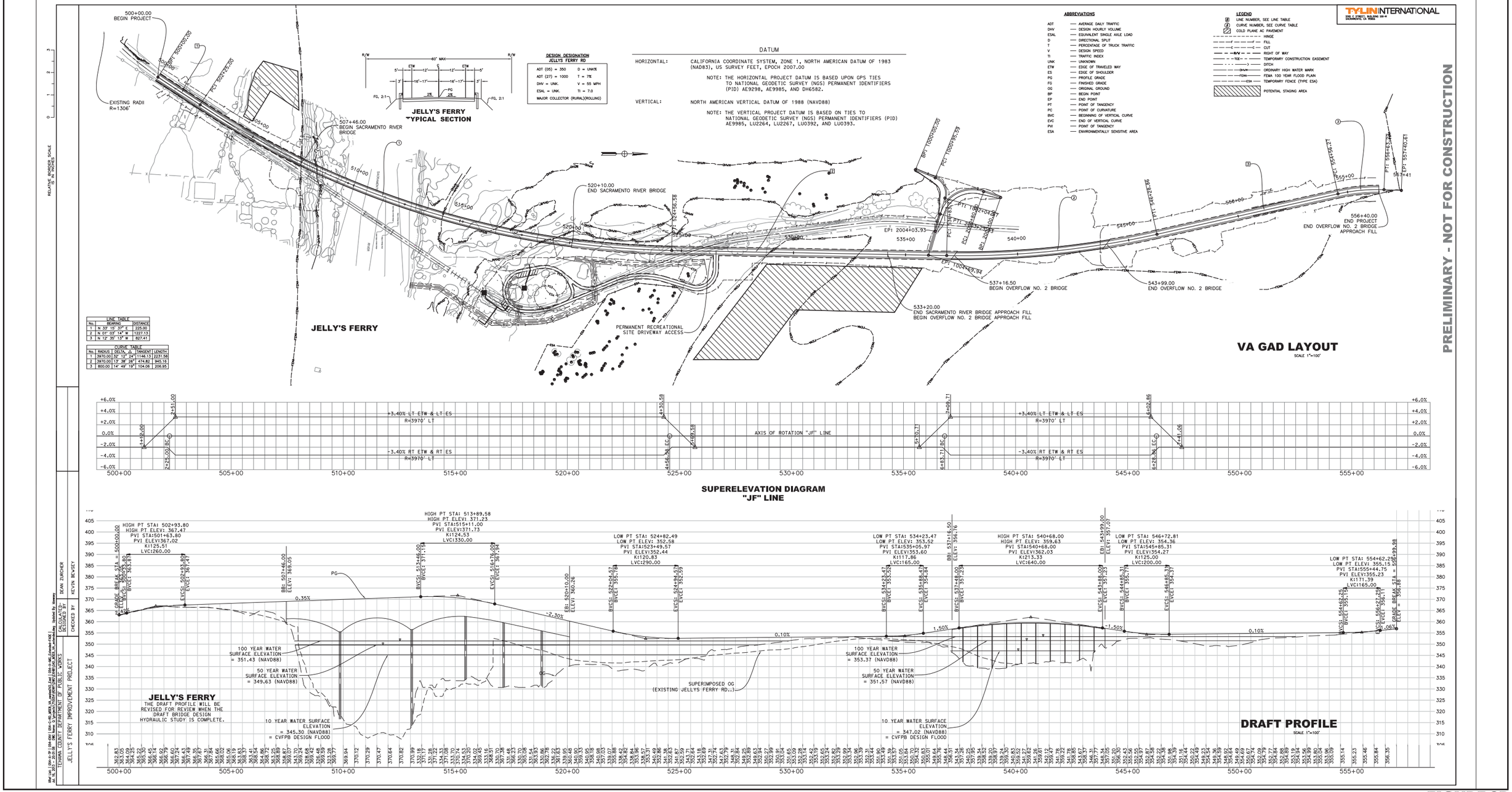
FIGURE 3A

Jellys Ferry Road
Bridge Replacement Project

SOURCE: Tehama County Department of Public Works (2013).

I:\Tyl0602\AI\IS-MND Addendum\Figure 3a.ai (4/30/2014)

Proposed Project Design



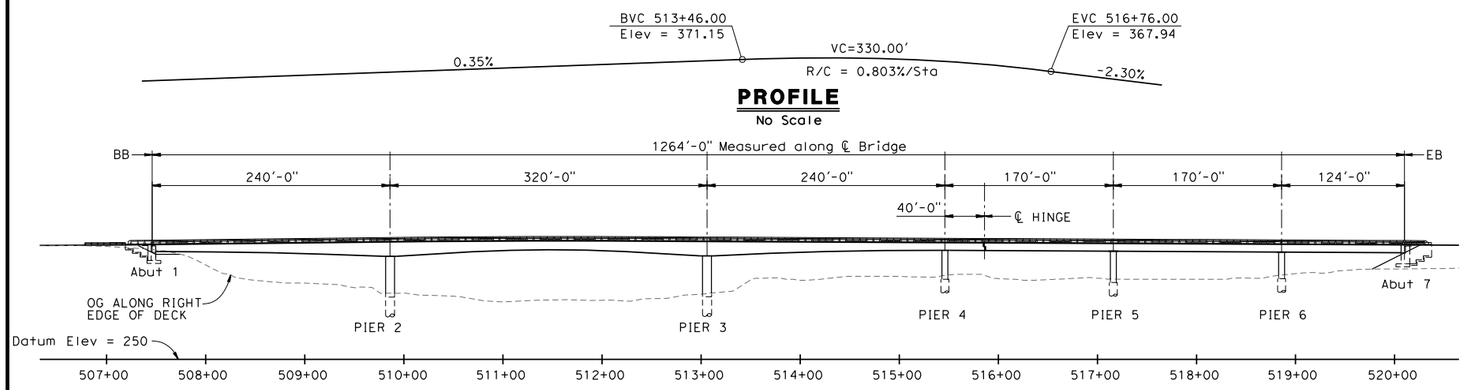
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FIGURE 3B

Jellys Ferry Road
Bridge Replacement Project

SOURCE: Tehama County Department of Public Works (2013).
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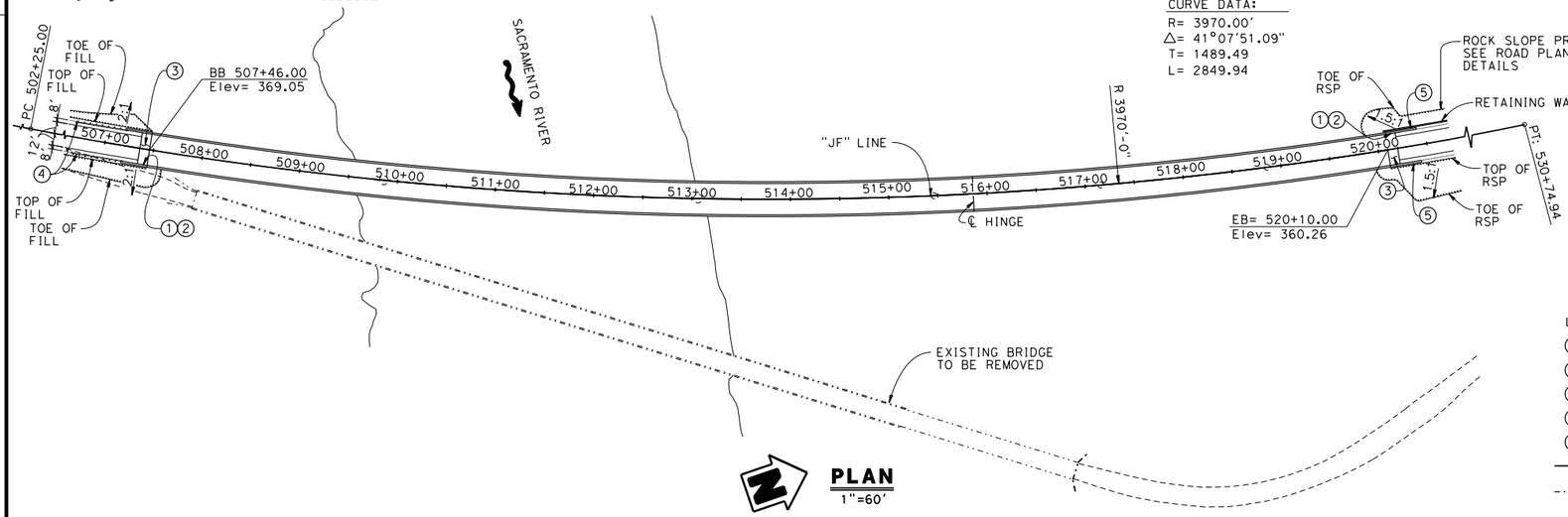
Proposed Project Design



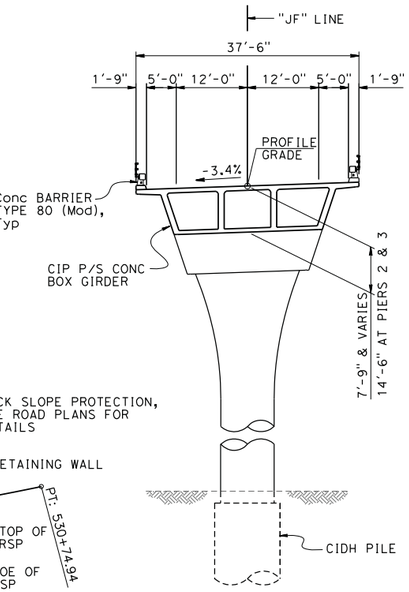
DEVELOPED ELEVATION
1"=60'

HYDROLOGIC SUMMARY	Design Flood	Base Flood	Overtopping Flood	Flood of Record
Frequency (Years)	50	100	-	-
Discharge (Cubic feet per second)	-	-	-	-
Water Surface (Elevation at bridge)	349.60	351.40	-	-

Flood plain data is based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State, County, or City and interested or affected parties should make their own investigations. Drainage Area = _____ square miles.
Ordinary high water mark elevation = _____



CURVE DATA:
R= 3970.00'
△= 41°07'51.09"
T= 1489.49
L= 2849.94



TYPICAL SECTION
1"=10'

Legend:
1. Paint "Bridge No. 8C-043"
2. Paint "Jelly's Ferry Road Bridge"
3. Structure Approach Type E010
4. Metal Beam Guard Rail see "Road Plans"
5. Retaining Wall

—— Indicates new Structure
---- Indicates Existing Structure to be removed

PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	TEH	CR			

REGISTERED CIVIL ENGINEER
PLANS APPROVAL DATE
REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA
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T·Y LIN INTERNATIONAL
3301 C STREET, BUILDING 100-M
SACRAMENTO, CA 95816

DESIGN OVERSIGHT	DESIGN	BY M. Wolohan	CHECKED	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 & "LOW BOY" PERMIT DESIGN VEHICLE TRUCK		
	DETAILS	BY H. Hidalgo	CHECKED	LAYOUT	BY M. Wolohan	CHECKED	
SIGN OFF DATE	QUANTITIES	BY	CHECKED	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED	

PREPARED FOR
TEHAMA COUNTY
PUBLIC WORKS DEPARTMENT

Michael Wolohan
PROJECT ENGINEER

BRIDGE NO.	JELLYS FERRY BRIDGE REPLACEMENT
08C-0374	GENERAL PLAN
POST MILES	

DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 2/25/05)
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
CU
EA
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES (PRELIMINARY STAGE ONLY)
SHEET X OF X

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USERNAME => rhidalgo

LSA

FIGURE 3C

Jellys Ferry Road Bridge Replacement Project

SOURCE: Tehama County Department of Public Works (2013).
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Proposed Project Design

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	TEH	CR			

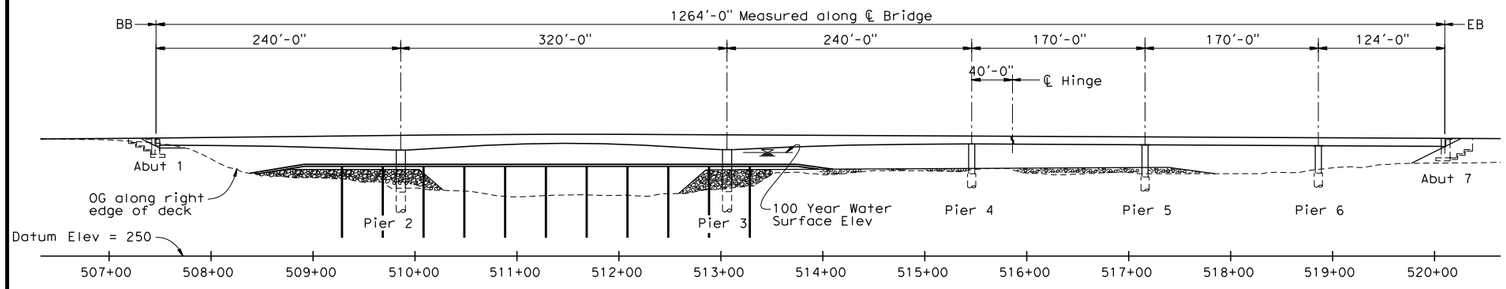
REGISTERED CIVIL ENGINEER

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

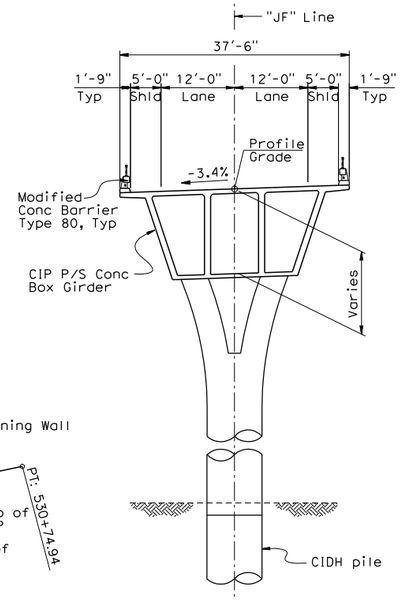
PLANS APPROVAL DATE

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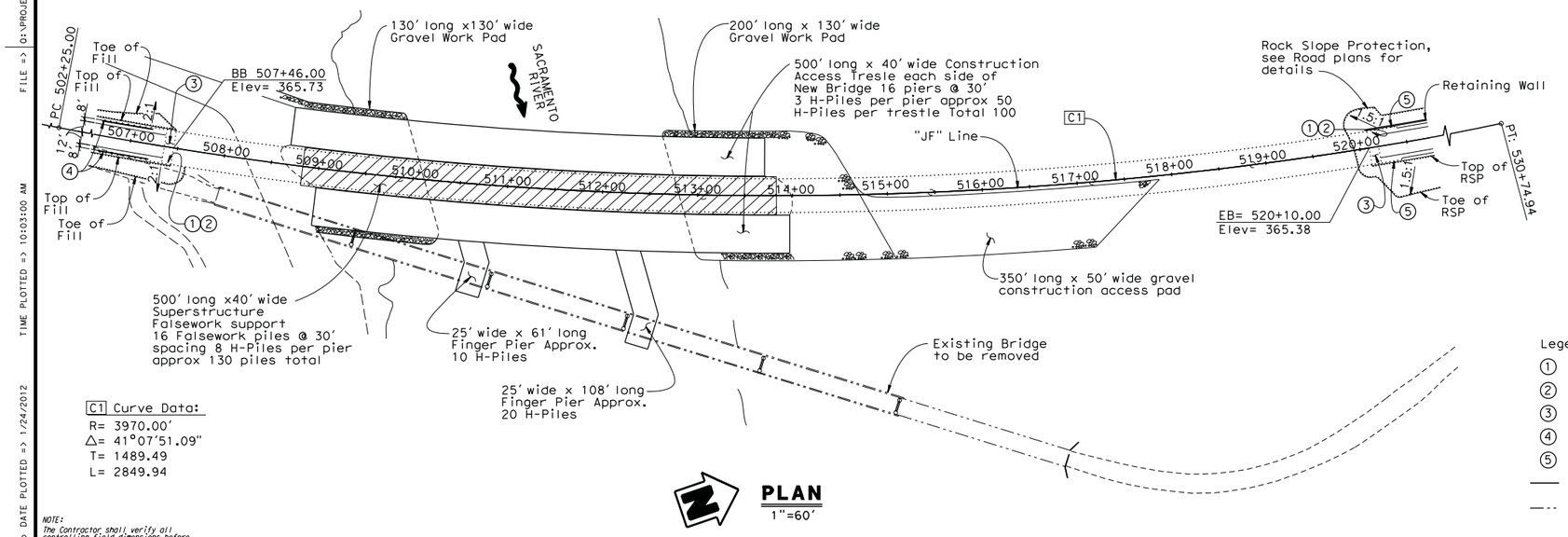
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3301 C STREET, BUILDING 100-M
SACRAMENTO, CA 95816



DEVELOPED ELEVATION
1"=60'



TYPICAL SECTION
1"=10'



C1 Curve Data:
R= 3970.00'
△= 41°07'51.09"
T= 1489.49
L= 2849.94

PLAN
1"=60'

Legend:
1. Paint "Bridge No. 8C-043"
2. Paint "Jelly's Ferry Road Bridge"
3. Structure Approach Type EQ10
4. Metal Beam Guard Rail see "Road Plans"
5. Retaining Wall

—— Indicates new Structure
—·— Indicates Existing Structure to be removed

NOTE:
The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

PRELIMINARY SUBMITTAL NOT FOR CONSTRUCTION

DESIGN OVERSIGHT	DESIGN	BY M. Wolohan	CHECKED	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 w/ "LOW BOY" PERMIT DESIGN VEHICLE TRUCK		PREPARED FOR TEHAMA COUNTY PUBLIC WORKS DEPARTMENT
SIGN OFF DATE	DETAILS	BY H. Hidalgo	CHECKED	LAYOUT	BY M. Wolohan	CHECKED	Michael Wolohan PROJECT ENGINEER
	QUANTITIES	BY	CHECKED	SPECIFICATIONS	BY	PLANS AND SPECS COMPARED	

BRIDGE NO.	JELLYS FERRY BRIDGE REPLACEMENT
08C-0374	CONSTRUCTION ACCESS
POST MILES	

DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 2/25/05)
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
CU EA
DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES (PRELIMINARY STAGE ONLY)
SHEET X OF

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TIME PLOTTED => 10:03:00 AM
DATE PLOTTED => 1/24/2012
USERNAME => hhidalgo

LSA

FIGURE 3D

Jellys Ferry Road Bridge Replacement Project

Proposed Project Design

SOURCE: Tehama County Department of Public Works (2013).

At this location, the maximum embankment fill height would be approximately 11 feet corresponding to the 100-year flood level of hydraulic service to prevent overtopping of the roadway.

The south approach roadway length for the Overflow No. 2 Bridge would be approximately 400 feet in length. The approach roadway length from the north end of the Overflow No. 2 Bridge to the northern terminus of the Project area would be approximately 1,200 feet. The Proposed Project would be designed to meet the American Association of State Highway and Transportation Officials' criteria for a design speed of 55 miles per hour (the un-posted speed limit for Jellys Ferry Road per the California Vehicle Code).

The proposed bridge over the main river channel would be constructed on a new alignment approximately 45 feet upstream (west) of the existing bridge, measured at the south bank of the Sacramento River and approximately 190 feet upstream (west) of the existing bridge measured at the north bank of the Sacramento River.

The new bridge would be approximately 1,264 feet in length and would be comprised of a six-span cast-in-place post-tensioned box girder superstructure with varying depth supported on single column piers (9-foot diameter columns for the main channel piers 2 and 3 and 6-foot diameter columns for piers 4, 5 and 6) founded on cast-in-drilled-hole (CIDH) concrete piles. The bridge end spans would be supported on seat-type abutments with approximately 12 by 40-foot spread footings with rock slope protection (RSP) as required for scour protection (as referenced in Figures 3a through 3d). The bridge would be wide enough to accommodate two 12-foot wide undivided lanes, two 6-foot (5-foot minimum, 6-foot preferred) wide shoulders with Class II bicycle lanes, and approximately 2-foot wide solid or "see through" concrete barriers.

The Overflow No. 2 Bridge would be constructed on a new alignment approximately 130 feet east of the existing road at the south abutment and approximately 50 feet east of the existing road at the north abutment. The Overflow No. 2 Bridge would be approximately 685 feet in length and would be comprised of an 11-span cast-in-place post-tensioned slab bridge supported on multiple drilled shaft extensions at each pier. The end spans would be supported on multiple drilled shaft extensions at each pier. The end spans would be supported on seat-type abutments founded on CIDH piles. The bridge would be wide enough to accommodate two 12-foot wide undivided lanes, two 6-foot (5-foot minimum, 6-foot preferred) wide shoulders with Class II bicycle lanes, and two approximately 2-foot wide solid or "see-through" concrete barriers.

The Proposed Project would require the relocation of the BLM Recreation area access road and realignment of the existing recreational area circulation road. Access to the BLM Recreational site would be relocated to the east side of Jellys Ferry Road approximately 550 feet to the north of the existing entrance.

The Proposed Project would also require potential retaining walls, storm water drainage facilities, bank protection, reconstruction of existing residential driveways, replacement, or relocation of existing fencing, and the restoration of existing landscape.

A retaining wall would be required along the west side of the north approach roadway to the Sacramento River Bridge. The wall would vary in height from a maximum of approximately 20 feet at the north end of the abutment to a minimum of approximately 5 feet approximately 450 feet north

of the north abutment. The purpose of this retaining wall would be to prevent encroachment of the north approach roadway fill into the adjacent wetlands and jurisdictional waters of the U.S. at this location.

Storm water run-off from Jellys Ferry Road south of the proposed Jellys Ferry Road Bridge would be collected in roadside ditches. The ditches would convey the run-off south and discharge into an existing ephemeral drainage system. Stormwater runoff from the proposed Jellys Ferry Road Bridge would be collected in deck drains and conveyed to a new drainage system on the north side of the Sacramento River. This drainage system would consist of a series of ditches along the toe of the roadway embankment which would eventually convey the stormwater runoff from the bridge and the north approach roadway, into either the overflow channel on the west side of the north approach, or through the BLM Recreation area where it would eventually empty into the Sacramento River downstream of the Sacramento River Bridge. The drainage system would be designed to discharge water to the overflow channel or Sacramento River in a manner approximating the preexisting conditions.

North of the Sacramento River Bridge, along the south approach of the proposed Overflow No. 2 Bridge, storm water run-off from Jellys Ferry Road would be collected in ditches along the toe of the roadway embankment on either side of the road and would be conveyed north to discharge into the Overflow No. 2 channel. Storm water run-off from the Overflow No. 2 Bridge would be collected along the curb or in deck drains and would be routed to the drainage systems at each abutment. Run-off from the north half of the bridge would be routed to the drainage system at the north abutment while run-off from the south half of the bridge would be routed to the drainage system at the south abutment. North of the Overflow No. 2 Bridge, stormwater runoff from Jellys Ferry Road would be collected in ditches at the toe of the road embankment and would be conveyed south to eventually discharge into the Overflow No. 2 Channel. Vegetative swales may be used as part of the drainage systems described above to meet the stormwater runoff requirements of the County and the Regional Water Quality Control Board.

Bank protection would likely be required at several locations to prevent scour during high flow events. Slope protection may be required at the south abutment of the Jellys Ferry Road Bridge to protect the spread footing foundation from high flows in the Sacramento River. Slope protection would likely be required at the north abutment of the Jellys Ferry Road Bridge to protect the spread footing foundation and the base of the retaining wall along the west side of the north approach roadway during high flow events. Slope protection may also be required along portions of Jellys Ferry Road between the Sacramento River and Overflow No. 2 Bridges to protect against scour from high flows in the adjacent Sacramento River Overflow Channel. Slope protection would also likely be required at the south and north abutments of the Overflow No. 2 bridge to protect against scour due to high flows in the Sacramento River Overflow Channel and the Overflow No. 2 channel. Slope protection would be designed based on the anticipated water flow velocities for the various design flood events. Slope protection would likely consist of rock slope protection or other pervious slope protection measures.

The following three utility services are located within the Project boundary: Pacific Gas & Electric (PG&E); Charter Cable TV; and AT&T. All three utility services would require relocation due to Project implementation.

The PG&E utilities consist of three 12-kilovolt (KV) overhead lines on joint use utility poles that parallel the east side of Jellys Ferry Road south of the Sacramento River. The PG&E overhead lines travel 900 feet east of the south end of the existing bridge and then cross the Sacramento River. After crossing to the north side of the river, the lines encroach onto BLM land and parallel the east side of the existing road.

AT&T's utilities consist of overhead lines generally located on the same utility poles as the PG&E overhead lines. The AT&T overhead lines cross the river adjacent to the existing bridge. Once on the north side of the river, the lines parallel Jellys Ferry Road until they run underground and attach to a carrier system and pair gain device. After the carrier system, the AT&T lines remain underground and continue north on both side of the road. The existing AT&T utilities adjacent to the river would be relocated into conduits on the new bridge and would be buried adjacent to the new Jellys Ferry Road.

Charter Cable TV has overhead fiber cables located on the same utility poles as the PG&E lines. The cable line parallels the existing road and crosses the river with the PG&E overhead utilities. Once across the river, the cable parallels the east side of the road until it is undergrounded. The underground cable then continues on the east side of the Project boundary. The existing Charter Cable TV utility line on the north side of the river would be relocated in buried conduits adjacent to the proposed road.

Proposed Project Construction Activities

The following provides information on the construction of the Proposed Project, including: mobilization, staging of materials and equipment, construction access, water drafting, installation/removal of Anti-Spawning Mats, installation of In-Water Gravel Pads and Work Trestles, Bridge Pier Foundation Construction, False Work Construction, Final Bridge Construction, Existing Bridge Demolition, Raising North Approach Profile at Overflow Channel, and the Project Construction Schedule.

Mobilization

Prior to commencement of construction, the construction contractor would prepare a Storm Water Pollution Prevention Plan (SWPPP) per the Caltrans Standard Specifications, for review and approval. Once the SWPPP is approved, the construction contractor would protect Environmentally Sensitive Areas (ESA) with highly visible ESA temporary fencing and placement of anti-spawning mats would be conducted prior to the "in-water" work window. Mobilization of the construction contractor would then begin with the placement of temporary construction entrances at staging areas and construction areas and the completion of any initial species protection measures prior to ground disturbance.

Staging of Materials and Equipment

Staging of construction materials and equipment for periods longer than one construction season would be limited to areas above the 100-year flood plain. The staging of materials for shorter than one construction season, and in periods of relatively dry weather (i.e., the weather forecast indicates there is less than a 50 percent chance of rain), could be possible in other areas as well. The 100-year flood plain of the Sacramento River in the Project area extends north into the northern portion of the

Project boundary. All material and equipment stored in the 100-year flood plain would be removed upon notification of a potential for a 100-year flood event.

Staging of construction materials and equipment are proposed at two locations: one on each side of the river. The proposed staging area on the north side of the river is located east of and adjacent to existing Jellys Ferry Road, north of the proposed bridge location. The proposed staging area on the south side of the river is located west of and adjacent to the new south abutment. The proposed staging areas are shown in Figures 3a through 3d.

Construction Access

The existing Jellys Ferry Road Bridge would remain open throughout the construction of the new bridge to provide access across the Sacramento River. One of the first construction activities would be to install temporary access into the Sacramento River channel for erection of bridge piers, bridge foundation construction, and bridge falsework. Such access may be provided by means of gravel pads and platforms/trestles. The anticipated location of the construction access is shown in Figures 3a through 3d.

Water Drafting

Any water drafting required for dust suppression or other construction activities would be conducted in accordance with National Marine Fisheries Service (NMFS) guidelines for water drafting.

Installation/Removal of Anti-Spawning Mats

Anti-spawning mats would be installed in areas of suitable spawning habitat between March 1st and April 15th during the first construction season. The mats would consist of chain-link fence and would be securely attached to the river bottom. Anti-spawning mats would be removed between October 15th and October 30th of the first construction season.

Installation of In-Water Gravel Pads and Work Trestles

Temporary work platforms are required during construction of the new bridge and removal of the existing bridge. In order to maintain water flows in the Sacramento River, at least a portion of the temporary work platforms must be an elevated structure (i.e., a trestle) that would be supported on piles. Due to the number of piles required to support the trestles, as discussed below, it would not be feasible from an economic and time standpoint to twist or rotate the piles in place or drill a hole and then insert the pile; consequently, driving the piles would be the only feasible method of installation. To minimize the quantity of piles required, and the associated acoustic impacts, gravel approach pads would be constructed at both ends of the trestles.

Two gravel approach pads would be placed in the river, one extending from the south bank to pier 2 (approximately 120 feet in length), and one from the north bank extending to pier 3 (approximately 130 feet in length), as shown in Figures 3a through 3d. To accommodate both an upstream and downstream work trestle, each gravel approach pads would have an approximate top width of 125 feet. These pads would consist of 1 to 4-inch diameter uncrushed, washed, and rounded river rock (i.e., spawning gravel). The gravel pads would vary in height depending on future hydraulic analysis

and environmental restrictions with a maximum height of 40 feet and would be reinforced with stepped temporary barrier rail to prevent erosion in the river. A minimum 200-foot wide section of the Sacramento River would remain open, between the two gravel pads, throughout the duration of construction. No water diversions would be required.

Temporary work trestles would be built either upstream and or downstream of the new bridge to span between the gravel pads and access the proposed and existing bridges as required. The trestles would be offset from the proposed edge of deck and cross from the south bank to the north bank. A downstream trestle located between the existing and proposed structures could be used to construct the proposed bridge and could also be used to access the existing structure for removal. The temporary trestles would be up to 40 feet wide with spans of 25 to 30 feet.

Each temporary trestle would be supported on approximately 50 thick-walled, 12-inch driven steel H-piles (or equivalent), with an additional 30 piles for finger piers to access and remove the existing bridge piers, for a total of approximately 130 piles (assuming two trestles are used). The trestles would be designed to resist the 100-year peak flow for the Sacramento River. The temporary trestle deck would consist of steel W-beams overlaid by timber decking.

It is expected that approximately 6 trestle piles per day could be driven though it is likely some days fewer than 6 piles would be driven since the contractor would need to alternate pile driving and deck construction. It is estimated that pile driving for the temporary trestles finger piers would take between 25 and 35 days to complete.

Bridge Pier Foundation Construction

Once the construction contractor has built the work pads and trestles in the river, the pier foundations for the new bridge would be constructed. For the construction of the CIDH pile foundations, a temporary steel casing would be rotated into the ground or river bed (for the in-water piers) and then excavated to the required pile depth. Pile reinforcement would then be lowered into the pile, concrete would be placed (displacing any water in the pile) and the temporary steel casing would be removed. Water displaced from the pile would be collected and disposed of offsite. After construction of the CIDH pile shaft, the pier columns above would be formed and poured.

Prior to installation of the two CIDH main channel pier support piles, a 3/32-inch wire mesh would be attached to the bottom of the temporary steel casings. The mesh would be installed prior to the casings being lowered into the water. The wire mesh would prevent any fish from being trapped during the installation of the CIDH pile temporary casings. The mesh would be torn up, as the casings are rotated into the ground and excavated out of the center of the pile during pile excavation and clean out.

False Work Construction

The next stage of work would be construction of the temporary falsework to support the bridge superstructure. The temporary false work would extend between the upstream and downstream trestles supported by steel beams and approximately 100 thick-walled, 12-inch driven steel H-piles (or equivalent). The temporary steel piles would be designed to resist the 100-year peak flow for the Sacramento River. Some of the false work would also be supported by gravel pads. Similar to the

temporary trestles, it is expected that approximately 6 piles per day could be driven, for a total of approximately 22 and 32 days of pile driving for the falsework.

Final Bridge Construction

Once the false work is in place, the new bridge superstructure would be constructed beginning with the soffit (bottom slab of box girder) and girder stems and ending with the bridge deck. The structure would be "post tensioned" followed by removal of false work.

Bridge Demolition

Once the proposed Jellys Ferry Road Bridge and approaches have been completed and are open to traffic, removal of the existing bridge and approaches would begin. Demolition of the existing Jellys Ferry Road Bridge would start with the removal of the bridge deck. Removal of the deck would require placement of heavy tarps or an equivalent debris collection device under the bridge to prevent materials or liquids from falling into the Sacramento River. The debris collection devices would be supported by the existing structure as long as the existing superstructure remains in place. Once the existing bridge superstructure is removed, work would proceed with removal of the bridge piers. During the removal of the bridge piers, construction equipment and personnel would work from the downstream trestle around each of the existing piers. Due to the hard subsurface conditions present and the drilled shaft construction for the existing bridge in-water piers, removal of the existing bridge piers is not anticipated to be possible without the use of a wire saw operated by divers to cut the existing concrete piers in the water as close as possible to the bottom of the river.

Raising North Approach Profile at Overflow Channel

Raising the road profile to prevent frequent overtopping of the roadway by the adjacent Sacramento River Overflow Channel No. 2 would require reconstructing Jellys Ferry Road on an offset alignment east of the existing road and providing a proposed new bridge to convey the flows in the Overflow No. 2 Channel. Once construction of the raised roadway has been completed, traffic would be shifted to the raised roadway and the old pavement would be removed and the ground returned to a natural state.

All removed debris and materials used for demolition of the existing structure, approach embankment, and approach roadway and not slated for salvage, would become the property of the construction contractor and would be disposed of in conformance with the Caltrans Standard Specifications including any required permits, licenses, or environmental clearances. After the existing bridge has been removed, the temporary trestle would be removed. When removing the gravel pads, following completion of construction, the bottom 1 foot of gravel would be left in the channel to avoid impacts to the natural bed of the river. Finally, the areas of the riverbanks that were disturbed during construction would be returned to preconstruction conditions.

Construction Schedule

Construction of the proposed Project would last approximately 18 months and span two construction seasons; construction is scheduled to begin in April and end in October of the following year (e.g.,

April 2016 to October 2017). In-water work activities in the Sacramento River would be conducted during two discrete periods as described below.

The first in-water work period would last approximately 18 weeks, from May 15th through September 30th of the first construction season. Construction activities that would be conducted during the first in-water work period include construction of the gravel work pads and the temporary work trestles, construction of the CIDH piles for piers 2 and 3, and driving the piles for the temporary falsework. All pile driving activities (i.e., for construction of the temporary trestles and the temporary falsework) would be completed during the first in-water work period.

The second in-water work period would last approximately 25 weeks, from late-March through mid-September of the second construction season. Construction activities that would be conducted during the second in-water work period include removing the falsework piling, removing/demolishing in-water piers from the existing bridge, and removing the temporary trestles and gravel construction pads.

Installation and removal of the anti-spawning mats would occur independent from the in-water work periods between March 1st and April 15th and between October 15th and October 30th, respectively. Installation of the mats is an exception to the in-water work periods; the intent is to avoid working during the spawning window of winter run Chinook salmon.

Typically, the construction contractor would be permitted to work during daylight hours to complete all construction activities associated with construction of the new bridge and demolition of the existing bridge, including construction of the temporary gravel work pads, temporary trestles, and temporary falsework. In some instances, the contractor may be permitted to work during nighttime hours to complete detour maintenance/traffic control.

C. COMPARISON OF ORIGINAL AND PROPOSED PROJECT

The 2007 IS/MND evaluated the Original Project, a proposal to remove the existing functionally obsolete Jellys Ferry Road Bridge (Bridge No. 8C-0043) over the Sacramento River and development of a new replacement bridge, as well as approach and departure improvements along Jellys Ferry Road north and south of the proposed bridge. The Proposed Project would differ from the Original Project in the following ways:

- The new Jellys Ferry Road Bridge over the Sacramento River would be 1,264 feet long under the Proposed Project and accommodate two 12-foot wide undivided lanes, two 6-foot wide shoulders with Class II bicycle lanes, and 2-foot wide solid or “see through” concrete barriers. The Jellys Ferry Road Bridge over the Sacramento River under the Original Project was 1,096 feet long and would accommodate two 12-foot wide undivided lanes, two 8-foot wide shoulders, and an approximately 2-foot wide barrier.
- The Jellys Ferry Road approach south of the new bridge would have a total length of 800 feet whereas the southern approach of the Original Project was approximately 500 feet.
- The Jellys Ferry Road approach north of the new bridge would have a total length of 1,300 feet whereas the northern approach of the Original Project was approximately 800 feet.

- An Overflow No. 2 Bridge would be developed to the north of the Jellys Ferry Road Bridge. The Overflow No. 2 Bridge would be on a new alignment approximately 130 feet east of the existing road at the south abutment and approximately 50 feet east of the existing road at the north abutment. The Overflow No. 2 Bridge would be approximately 685 feet in length and would accommodate two 12-foot wide undivided lanes, two 6-foot wide shoulders, and two approximately 2-foot wide solid or "see through" concrete barriers. The Original Project did not include the development of an Overflow No. 2 Bridge.
- The Jellys Ferry Road south approach roadway length for the Overflow No. 2 Bridge would be approximately 400 feet, and the Jellys Ferry Road approach from the north end of the Overflow No. 2 Bridge to the northern terminus of the Proposed Project would be approximately 1,200 feet. The Original Project did not have such approaches as a design feature.
- The Proposed Project is approximately 6,190 feet long whereas the Original Project was 3,000 feet long.
- The Proposed Project does not include a curved alignment for Jellys Ferry Road compared to the Original Project that had a 1,150 foot long curved radius along the northern approach on Jellys Ferry Road.
- The Proposed Project would require more right-of-way through the BLM Recreation area and would require the relocation of the access road and realignment of the existing BLM circulation road to accommodate the shift in alignment of Jellys Ferry Road. The Original Project would have required a smaller amount of BLM land for right-of-way purposes and included improvements to the BLM operated/maintained Jellys Ferry Recreation Area, including development of a new boat launch/retrieval ramp.

Resource Evaluations Not Previously Considered in the 2007 IS/MND

The applicable CEQA Guidelines at the time the 2007 IS/MND was prepared did not include resource sections for the evaluation of forestry resources or greenhouse gas emissions.[1] The current CEQA Guidelines Appendix G requires the evaluation of these resources. Background information regarding forestry resources and greenhouse gas emissions is discussed below.

Forestry Resources

In determining whether impacts to forestry resources, including timberland, are significant environmental impacts, lead agencies should 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Forests have the capacity to both emit and sequester carbon dioxide (CO_2), a leading greenhouse gas that contributes to climate change. Trees through the process of photosynthesis naturally absorb CO_2 from the atmosphere and store the gas as carbon in their biomass (i.e., trunk, leaves, branches, and roots). Carbon is also stored in the soils that support the forest, as well as the understory plants and

[1] Forestry Resources and Greenhouse Gas Emissions were added to the environmental checklist in 2010.

litter on the forest floor. Wood products (timber) that are harvested from forests can also provide long-term storage of carbon.

When trees are disturbed, through events like fire, disease, pests or harvest, some of their stored carbon may oxidize or decay over time releasing CO_2 into the atmosphere. The quantity and rate of CO_2 that is emitted may vary, depending on the particular circumstances of the disturbance. Forests function as reservoirs in storing carbon dioxide. Depending on how forests are managed or impacted by natural or manmade events, they can be a net source of emissions, resulting in a decrease to the reservoir, or a net sink, resulting in an increase of CO_2 to the reservoir. In other words, forests may have a net negative or net positive impact on the climate. Through sustainable management and protection, forests can also play a positive and significant role to help address global climate change. The Forest Protocol is designed to address the forest sector's unique capacity to sequester, store, and emit CO_2 and to facilitate the positive role that forests can play in affecting climate change.

Revisions to Appendix G of the *CEQA Guidelines* require that unlike the Original Project, the Proposed Project be evaluated for impacts under the following thresholds:

- Would the Proposed Project 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))?
- Would the Proposed Project result in the loss of forest land or conversion of forest land to non-forest use?
- Would the Proposed Project involve changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest uses?

Section III.A.2 of this document presents a discussion of the potential impacts related to forestry resources that could result from implementation of the Proposed Project.

Greenhouse Gas Emissions

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principle contributors to human-induced global climate change are: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).[1]

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect. Increased GHG concentrations in the atmosphere are believed to be causing global warming. While GHGs produced by human activities include naturally occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFC, PFCs, and SF_6 are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the

[1] The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this section.

atmosphere compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

The California Air Resources Board (CARB) is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Important regulatory actions related to GHG emissions include:

- **Assembly Bill 1493 (2002):** Requires the CARB to establish GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years.
- **Executive Order S-3-05 (2005):** Established California's GHG emissions reduction targets: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The executive order also directed the secretary of the California EPA to coordinate a multiagency effort to reduce GHG emissions to the target levels.
- **Assembly Bill 32 (2006), California Global Warming Solutions Act:** This act aims at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 Million Metric Tons (MMT) of CO_2. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. In addition, AB 32 directed the CARB and the Climate Action Team (CAT) to identify a list of "discrete early action GHG reduction measures" that can be adopted and made enforceable by January 1, 2010.
- **Senate Bill 375 (2008):** SB 375, signed into law on October 1, 2008, enhances the CARB's ability to reach AB 32 goals by developing regional GHG emissions reduction targets for the automobile and light truck sectors. The CARB continues to work with California's 18 metropolitan planning organizations to align their regional transportation, housing, and land use plans and prepare a "Sustainable Communities Strategy" to reduce the number of vehicle miles and demonstrate the region's ability to attain its greenhouse gas reduction targets.
- **Office of Planning and Research:** To assist public agencies in analyzing the effects of GHGs under CEQA, Senate Bill 97 (Chapter 185, 2007) requires the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. The Natural Resources Agency adopted CEQA Guidelines amendments related to climate change that became effective March 18, 2010.

Revisions to Appendix G of the *CEQA Guidelines* require that unlike the Original Project, the Proposed Project be evaluated for impacts under the following thresholds:

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

Section III.A.5 of this document presents a discussion of the potential impacts related to greenhouse gas emissions that could result from implementation of the Proposed Project.

III. ANALYSIS OF POTENTIAL ENVIRONMENTAL EFFECTS

The following discussion begins with key topics and related environmental impacts for the Original Project and the Proposed Project: aesthetics, agricultural and forestry resources, biological resources, cultural resources, greenhouse gas emissions, and hydrology and water quality. The Addendum summarizes the remaining topic areas in the sequence that they are addressed in the 2007 IS/MND and compares the Original Project and the Proposed Project. This section concludes by acknowledging that a majority of the mitigation measures from the 2007 IS/MND remain intact, presenting clarification to specific mitigation measures and describing mitigation measures that are no longer applicable to the Proposed Project that were recommended for implementation for the Original Project.

A. KEY RESOURCE TOPICS ANALYZED UNDER THE PROPOSED PROJECT

1. Aesthetics

Original Project Discussion

Section I of the 2007 IS/MND discussed the potential impacts that the Original Project would have on aesthetic resources in the area. The Original Project was not located an area designated with scenic vistas by the Tehama County General Plan; nor, was the Original Project located on a State scenic highway where implementation could damage scenic resources. During construction, the Original Project would have had the potential to temporarily degrade the existing visual character of the area due to removal of natural vegetation and trees and placement of construction equipment in various staging locations. Once operational the new bridge associated with the Original Project would have been constructed with modern materials and designed to be aesthetically pleasing. The 2007 IS/MND determined that the Original Project would not disrupt the visual character of the area. The scaled-down truss style architecture of the original bridge would have been removed from the area. The 2007 IS/MND determined that aesthetic impacts would be less than significant with implementation of the Original Project and no mitigation measures were identified.

Proposed Project Discussion

The Proposed Project would be located in the same general area as the Original Project; however, the Proposed Project would be larger in size and incorporate more features into its design. Specifically, the Proposed Project would incorporate a second bridge on the northern end of the Project site (Overflow No. 2 Bridge) to reduce water overtopping along Jellys Ferry Road.

The Proposed Project location is topographically flat and no scenic vistas have been identified in the area.

Jellys Ferry Road is not designated as a State scenic highway and therefore Proposed Project implementation would not substantially degrade visual resources on a designated scenic highway.

Similar to the Original Project, implementation of the Proposed Project would result in temporary impacts to the visual character of the area during construction activities. Removal of the existing bridge, construction of the new bridge and Jellys Ferry Road approaches, and construction of the Overflow No. 2 Bridge, would require construction activities and the staging of construction equipment that may temporarily change the visual character or quality of the site. Temporary construction-related visual impacts include the presence of construction equipment and staging areas, use of a temporary trestle and in-river gravel pads, and the presence of the existing bridge adjacent to the new bridge/roadway construction area. Construction-related impacts to the visual character and quality of the area would be short-term and temporary in nature. Implementation of mitigation measures (as discussed below in **Section III.C.1**) would reduce the Project's potential aesthetic impacts by minimizing the impact on natural vegetation and trees, recontouring landforms after construction, protecting the site from erosion and preparing a revegetation plan that includes tree replacement. Once operational, the Proposed Project would change the visual quality and characteristics of the area; however, the Proposed Project would not detract from the existing visual character of the area.

The existing bridge is functionally obsolete and is composed of steel truss framing and timber roadway that is 65 years old (the existing bridge was developed in 1949). These features generally detract from the natural setting and often conflict with the various natural visual elements in the area. Motorists approaching the existing bridge to the north and south along Jellys Ferry Road have limited views of the Sacramento River due to vegetation along both sides of the road. The truss structure of the existing bridge obstructs the view of the horizon for motorists traveling north and south along Jellys Ferry Road (however, the landscape is topographically flat and the existing bridge does not obstruct views of distant background features).

The new bridge, roadway approaches, realignment of Jellys Ferry Road and Overflow No. 2 Bridge, would present opportunities to improve views in the area by introducing modern architectural form into the natural setting that is complementary and would blend into the natural setting of the landscape. The new Jellys Ferry Road Bridge would not have a truss that obstructs the view of the horizon for motorists traveling north and south along Jellys Ferry Road. Overflow No. 2 Bridge would be installed at a higher elevation than the existing Jellys Ferry Road on the north end of the Proposed Project site. Once operational the Proposed Project would not detract from the visual character and quality of the area. Impacts would be less than significant.

The Proposed Project would not incorporate design features such as light standards or reflective surfaces (e.g., metal, glass, etc.) that would create a new source of light or glare in the area. The existing bridge is composed of painted metal, and in certain areas, corrosion has removed the paint from the truss structure. On sunny days, glare can be generated from reflected sunlight. The proposed Jellys Ferry Road Bridge would be constructed of concrete and therefore would not generate glare from reflected sunlight. Impacts would be less than significant.

No new or substantially more severe significant impacts would occur; however, mitigation measures would be implemented to reduce impacts to the visual character and quality of the area during Proposed Project construction and to return the impacted areas to pre-construction conditions.

2. Agricultural and Forestry Resources

Original Project Description

The 2007 IS/MND analyzed potential impacts that the Original Project may have on agricultural resources. The 2007 IS/MND concluded that the Original Project would not be located in an area that is designated by the California Department of Conservation as Prime Farmland, Unique Farmland or Farmland of Statewide Importance (collectively known as Important Farmland) and therefore would not convert Important Farmland to non-agricultural uses. Additionally, the 2007 IS/MND identified that land within and surrounding the Original Project site was not zoned for agricultural use nor was the land subject to a Williamson Act Contract. No mitigation measures were required.

Proposed Project Description

The Proposed Project is located in the same general area as the Original Project and none of the land within the temporary and permanent impact footprint is designated as Important Farmland per the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). The Proposed Project would not convert Important Farmland to non-agricultural uses.

It should be noted that according to the Tehama County Assessor's Office parcel (APN) 009160011 is currently under a Williamson Act Contract (this parcel was enrolled in August 1980 and the Williamson Act Contract took effect January 1981). Parcel 009160011 is approximately 23.4 acres in size and implementation of the Proposed Project would temporarily disturb approximately 1.2 acres (5.1 percent) and permanently impact approximately 1.34 acres (5.7 percent) of this parcel. According to Government Code Section 51295, "When an action to condemn or acquire less than all of a parcel of land subject to a contract is commenced, the contract shall be deemed null and void as to the land actually condemned or acquired and shall be disregarded in the valuation process only as to the land actually being taken, unless the remaining land subject to contract will be adversely affected by the condemnation, in which case the value of that damage shall be computed without regard to the contract." The Williamson Act Contract on the portion of parcel 009160011 that would be permanently disturbed would be null and no longer under contract restrictions per the acquisition of this land by a public agency for a public improvement. The nullification of the Williamson Act Contract on the 1.34 acres of land on parcel 009160011 would be in compliance with Government Code Section 51295 and impacts would be less than significant. The final decision to acquire the 1.34 acres of this parcel and proceed with the project as proposed would not be made until the Tehama County Board of Supervisors adopts a Resolution of Necessity in accordance with Code of Civil Procedure.

The 2007 IS/MND did not include a discussion and analysis of Forestry Resources since the 2007 CEQA Guidelines did not include this topic in the CEQA Appendix G: Environmental Checklist Form. The 2013 CEQA Guidelines includes Forestry Resources as a topic in Appendix G, and the Proposed Project needs to be analyzed to determine if implementation would result in significant impacts to Forestry Resources. The Proposed Project is not located in an area with land designated or zoned as 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)). The nearest land in Tehama County designated as Timberland is approximately 25 miles to the east. Implementation of the Proposed Project would not convert land

designated as forest or timberland to a non-forest/non-timberland use. Impacts would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures are required.

3. Biological Resources

Original Project Description

The original biology section of the 2007 IS/MND was based on information gathered during field surveys that were conducted in 2001 and 2007. It should be noted that biological technical studies evaluating the original Project design were not prepared and therefore information from such documents was not referenced in the biology section of the 2007 IS/MND. The analysis presented in the biology section of the 2007 IS/MND evaluated the original design of the proposed Project and does not consider biological resources (habitat and wildlife) that could potentially be impacted by installation of the Overflow No. 2 Bridge and the realigned Jellys Ferry Road and Jellys Ferry Road Bridge. The Biological Study Area (BSA) developed for the original Project design was smaller and had a slightly different footprint location when compared to the new design discussed below. The 2007 IS/MND identified a number of plant and wildlife species that had the potential to exist within the boundary of the BSA. Plant and wildlife species identified in the 2007 IS/MND were similar to those described for the BSA of the proposed Project under the new design.

A riverbed study was conducted for the reach of the Sacramento River located within the original BSA to determine if suitable habitat existed for spawning, migration, and rearing of anadromous salmonids species as well as green sturgeon. The study concluded that migration and rearing habitat existed within the BSA and spawning habitat did not. However, an area downstream of the BSA was identified as potential spawning habitat for salmonids species. The original Project design did not include the installation of temporary work pads in the Sacramento River channel and therefore the channel would not have been narrowed during construction activities. Based on the original design, an analysis of migration impacts of salmonids was not conducted for the 2007 IS/MND. Additionally, the 2007 IS/MND did not consider the potential hydroacoustical impacts to salmonids located within the BSA; and, therefore, a hydroacoustical analysis of construction activities occurring within the Sacramento Channel was not prepared.

The 2007 IS/MND indicated that temporary and permanent impacts to vegetative communities could occur with the original Project design implementation. The analysis indicated that potential temporary and permanent impacts could occur to Herbaceous Riparian, Riverine, Mixed Riparian Forest, Developed, and Ruderal communities; however, the analysis provided was qualitative and not quantitative.

Finally, the 2007 IS/MND quantified impacts to Waters of the U.S. and California Department of Fish and Wildlife (CDFW) Waters. Implementation of the Project under the original design would have impacted 0.67 acre of Waters of the U.S. (0.14 acre of Wetlands and 0.53 acre of Non-wetland waters) and 0.05 acre of CDFW Waters.

The 2007 IS/MND identified mitigation measures BIO-1 through BIO-12 to reduce temporary and permanent impacts to biological resources due to Project implementation under the original design.

The 2007 IS/MND mitigation measures were general and not species specific mitigation measures as presented in the biological technical studies that were prepared for the new Project design (further discussed below). The analysis and mitigation measures presented in the biology section of the 2007 IS/MND for the original Project design would be superseded by the analysis of and mitigation measures identified for the new design of the Proposed Project.

Proposed Project Discussion

A *Natural Environment Study* was prepared in April 2014 based on the design changes associated with the Proposed Project. The revised design of the Proposed Project changed the size of the temporary and permanent impact boundary of the site and therefore a revised Biological Study Area (BSA) was developed. The BSA contains approximately 61.52 acres of Natural Communities including: 35.83 acres of California annual grassland; 20.91 acres of Valley oak/grassland; and, 4.78 acres of Riverine. Other vegetation communities in the BSA include 3.91 acres of pastures and 4.67 acres of ruderal. Approximately 5.26 acres of the BSA includes developed land. Aquatic resources within the BSA include the Sacramento River and associated overflow channel, and two ephemeral drainages. Potential jurisdictional waters in the BSA include 1.42 acres of Wetland Waters of the U.S., 16.93 acres of Non-wetland Waters of the U.S. and 23.25 acres of CDFW 1602 Waters. The following provides information on the temporary and permanent impacts that would occur to biological resources with Project implementation:

Valley Oak/Grassland Association

The Valley Oak/Grassland Association is a combination of two vegetation series. The association classification was used to define the riparian vegetation associated with the Sacramento River to distinguish between the California annual grassland series and the herbaceous vegetation associated with riparian habitat. This association consists of closed-canopy Valley oak riparian habitat interspersed with open areas of annual grassland. The majority of this habitat is located on the north banks of the Sacramento River and associated overflow channel. This association also includes areas of wetlands, which are located in the overflow area north of the Sacramento River. Project implementation would result in permanent impacts to the Valley oak/grassland association totaling 6.41 acres and temporary impacts totaling 3.88 acres. The riparian portion of the Valley oak/grassland association would be permanently impacted with a loss of 1.81 acres and temporarily impacted with a loss of 2.81 acres. The Proposed Project would also result in permanent impacts to wetlands totaling 0.01 acre and temporary impacts totaling 0.34 acre. Mitigation measures BIO-1 through BIO-4, presented below, would be implemented to reduce impacts to the permanent and temporarily loss of Valley oak/Grassland association habitat. With implementation of these mitigation measures impacts would be less than significant.

Bats

Several species of bats could be present in the BSA including: pallid bat (*Antrozous pallidus*); western mastiff bat (*Eumops perotis californicus*); and, western red bat (*Lasiurus blossevillii*), which are all State Species of Concern. Other species that may use the BSA are the hoary bat (*Lasiurus cinereus*); long eared myotis (*Myotis evotis*); and, the Yuma myotis (*Myotis yumanensis*), which are classified as CDFW 'special animals'. None of these species have any federal status. Field surveys were conducted in 2002 which identified suitable roosting habitat for bat species underneath the

existing bridge structure at both ends over land and also over the water of the Sacramento River. Observations during this field survey confirmed the presence of Mexican free-tailed bats (*Tadarida brasiliensis*) and big brown bats (*Eptesicus fuscus*) utilizing the bridge structure. Additional surveys were conducted in 2007 that identified a maternity colony of approximately 50 Yuma myotis and several hundred pre-volant juvenile Mexican free-tailed bats at the north end of the bridge and a cluster of roosting big brown bats at the south end. A western red bat was also observed at the shore on the north side of the bridge; although this species does not roost on the bridge, it is likely that western red bat uses the riparian habitat within the BSA.

Removal of the existing bridge would permanently remove suitable day and night roosting habitat for the bats identified above. Implementation of mitigation measures BIO-5 through BIO-8 would reduce impacts to bats. Impacts would be less than significant with implementation of mitigation.

Tricolored Black Birds

Two records of the tricolored blackbird were recorded within 1 mile of the BSA. Suitable nesting habitat for this species is present in blackberry thickets in the valley oak/grassland association. Suitable foraging habitat is present in the annual grasslands north of the bridge and in the pasture south of the bridge. Project implementation would result in permanent loss of 6.41 acres of nesting habitat for tricolored blackbird due to the loss of Valley oak/grassland association. Temporary impacts to 3.88 acres of nesting habitat would occur due to project implementation. The Proposed Project would also result in permanent impacts to 10.19 acres of annual grassland used as foraging habitat for this species. Temporary impacts to foraging habitat for the tricolored black bird would also occur due to the temporary loss of 1.91 acres of pasture and 8.10 acres of annual grasslands. Implementation of mitigation measures BIO-9 through BIO-13 would reduce temporary and permanent impacts to nesting and foraging habitat of the tricolored black bird; and therefore, impacts would be less than significant.

Swainson's Hawk

A record search identified one record of Swainson's hawk that occurred in 1993, approximately 10 miles south of the BSA. There are no active nesting records within 10 miles of the BSA in the last 5 years. Mature trees in the BSA provide suitable nesting habitat for this species. The annual grassland north of the bridge and the pasture south of the bridge provide suitable foraging habitat for this species. Project implementation would result in permanent loss of 6.41 acres of the Valley oak/grassland association, which is suitable nesting habitat for Swainson's hawk. Temporary impacts to 3.88 acres of Valley oak/grassland association would occur during Project construction. Permanent impacts due to the loss of 10.19 acres of annual grassland (which provide foraging habitat for Swainson's hawk) and temporary impacts totaling 1.91 acres to pasture and 8.10 acres to annual grassland would occur with Project implementation. Mitigation measures BIO-14 through BIO-17 have been identified below. With implementation of mitigation measures BIO-14 through BIO-17 permanent and temporary impacts to nesting and foraging habitat of the Swainson's hawk would be reduced to a less than significant level.

Bald Eagles

The bald eagle is a State endangered species and a Bureau of Land Management (BLM) sensitive species. A record search indicated that there were five recorded sightings of bald eagles near the Project site; the last being recorded in 1997 approximately 3 miles south of the BSA. The Sacramento River within the BSA provides suitable foraging habitat for this species. Suitable nesting trees are not present in or within the vicinity of the BSA; therefore, this species is not expected to nest with the BSA. Construction activities in the Sacramento River may temporarily impact foraging habitat for this species; however, no permanent impacts to nesting and foraging habitat would occur for this species with Project implementation. No mitigation measures are required and impacts would be less than significant.

Osprey

A search of the CNDDB database indicated 11 records of osprey occurring in the Proposed Project area. The closest record occurred 0.3 mile downstream from the Jellys Ferry Road Bridge in 1990. Field surveys were conducted and osprey nests were observed on the existing Jellys Ferry Road Bridge and in a tree just south of the bridge. No ospreys were observed during this field survey; however, this species is likely to nest on or near the bridge. The Sacramento River also provides suitable foraging habitat within and in the vicinity of the BSA. Project implementation would result in the permanent loss of 193 trees in the Valley oak/grassland association that provide suitable nesting habitat for osprey within the BSA boundary. Temporary impacts to nesting habitat in the Valley oak/grassland association and on the Jellys Ferry Road Bridge would occur during Project construction. Additionally, construction activities in the Sacramento River may temporarily impact foraging habitat for osprey within the BSA. Mitigation measures BIO-18 through BIO-21 are presented below. Implementation of these mitigation measures would reduce temporary and permanent impacts to the nesting and foraging habitat of ospreys to a less than significant level.

Bank Swallows

A records search indicated that 14 sightings of bank swallows have been recorded near the Project site. The closest record occurred 2.5 miles downstream of the BSA and documented nesting colonies between 1986 and 2008. No suitable nesting habitat is located within the BSA; however, the Sacramento River provides suitable foraging habitat for this species. Therefore bank swallows may use the area to forage. Project construction activities in the Sacramento River may temporarily impact foraging for this species. Implementation of the Proposed Project would not result in permanent impacts to nesting or foraging habitat for bank swallows. No mitigation measures would be required and impacts would be less than significant.

Pacific Pond Turtle

The nearest recorded sighting of this species occurred in the Sacramento River, approximately 4 miles upstream of the BSA, in 1988. The Sacramento River, within the BSA, does not provide suitable nesting habitat for the Pacific Pond Turtle. However, the edge of the Sacramento River provides suitable aquatic habitat for this species to use while migrating through the BSA. Project implementation would result in a permanent impact to 0.01 acre and a temporary impact to 0.95 acre of potential aquatic habitat for the Pacific pond turtle. Placement of the new bridge piers in the Sacramento River would result in both permanent and temporary impacts to aquatic habitat . Mitigation Measures BIO-22 through BIO-24 would be implemented during project construction and

operation to reduce impacts to the aquatic habitat used by the Pacific pond turtle. With implementation of mitigation measures BIO-22 through BIO-24 impacts would be less than significant.

California Red-Legged Frog (CRLF)

The CRLF is a federally threatened species and a State species of concern. Critical habitat for CRLF was finalized on March 17, 2010. The BSA is not located within designated critical habitat for CRLF. The nearest critical habitat is Unit BUT-1 (Butte County) located approximately 57 miles southeast of the BSA. A CRLF site assessment was prepared in June 2007 to determine if CRLF would occur within the BSA. Based on the lack of suitable habitat in the BSA and since there are no known recent records in the vicinity, CRLF are considered absent from the BSA. After reviewing the CRLF site assessment prepared in June 2007, the United States Fish and Wildlife Service (USFWS) determined that CRLF are not likely to be affected by the Project and protocol surveys would not be required. No mitigation measures are necessary and impacts would be less than significant.

Valley Elderberry Longhorn Beetle (VELB)

The VELB is typically found in mature riparian vegetation associated with large river systems, but its range extends from the valley floor to 3,000-foot elevations. The beetle is dependent on its host plant, blue elderberry, which is a common component of Central Valley riparian forests. The BSA is not located within critical habitat for VELB, as the two areas of designated critical habitat are both in Sacramento County. Surveys for elderberry shrubs were conducted on five separate occasions: in January 2008; July 2009; April 2011; November 2011; and, March 2013. The survey area included the BSA and lands outside of the BSA within 100 feet of the limits of work. A total of 138 elderberry shrubs with at least one stem that measured 1-inch in diameter at ground level were identified in the survey area. For each shrub, data was collected for stem size, height, and dripline diameter; it was also determined if the shrub was located in a riparian area and if exit holes (from the VELB) were present. The elderberry shrubs identified in the survey were only located north of the Sacramento River in three distinct areas: one location is just north of the Sacramento River on BLM lands east of the Jellys Ferry Road; a second location is in the overflow channel west of Jellys Ferry Road and south of private drive; and the third, is at the north end of the BSA, east of Jellys Ferry Road. The elderberry shrubs located east of Jellys Ferry Road on BLM lands are not naturally occurring as all of these shrubs were planted by the BLM as part of a floodplain enhancement project.

Per VELB Guidelines, complete avoidance of VELB consist of no ground disturbing activities within 100 feet of the drip line of any elderberry shrubs providing suitable VELB habitat. Ground disturbance within 100 feet of the dripline of elderberry shrubs providing suitable habitat may impact VELB and ground disturbance activities within 20 feet of the dripline of elderberry shrubs providing suitable habitat is considered a direct impact to VELB. The Proposed Project has been designed to maintain minimum avoidance distance of 20 feet from the drip line of all elderberry shrubs to avoid "take" of VELB. However, 52 of the shrubs surveyed are located between 20 and 100 feet away from the limits of Project construction activities, and could result in temporary impacts to VELB (during construction). These shrubs contain a total of 205 stems 1-inch in diameter or greater at ground level. Mitigation measures BIO-25 through BIO-32 would be implemented to reduce temporary impacts to these elderberry shrubs that could potentially be habitat of VELB. With implementation of mitigation measures BIO-25 through BIO-32 impacts would be less than significant.

Sacramento River Winter-Run Chinook Salmon ESU

Winter-run chinook salmon can occur in the reach of the Sacramento River within the BSA during all life stages (e.g., spawning, migration, and rearing). A field survey was conducted on the reach of the Sacramento River in the area of the Proposed Project (upstream and downstream of the BSA) in June 2001 and 2007 to determine the suitability for spawning habitat. The results of the survey indicated that the majority of the survey area was unsuitable spawning habitat for anadromous salmonids due to the coarse sand-embedded substrate of the river channel bottom. No salmon redds or suitable spawning habitat for salmon were observed in the BSA; however, one area of fair quality spawning habitat, approximately 25 yards long by 15 yards wide, was identified beyond the limits of the BSA, approximately 115 yards downstream of the existing bridge near the south bank. Although the reach of the Sacramento River within the BSA is not suitable spawning habitat for winter-run salmon, this reach provides suitable migration habitat for adults spawning upstream of the Project site and out-migrating smolts. The BSA also provides suitable rearing habitat for juveniles and fry. The riparian zone adjacent to the Sacramento River is an important physical/biological feature that is essential to the conservation for winter-run chinook as it provides shade and rearing areas for fry and juveniles. The riparian zone in the BSA is generally comprised of mature trees, and is moderately extensive, thus providing thermoregulation for the water column and rearing habitat for young salmon.

Winter-run chinook salmon (during all stages of lifecycles) are sensitive to changes in noise levels in their river environment. Implementation of the Project would require in-water work activities that would generate noise level changes that could potentially affect winter-run chinook salmon. These construction activities include: pushing gravel into the river channel to construct the two gravel work pads; driving temporary piling to support the construction access trestles and proposed bridge falsework; rotating the temporary casings into place for the construction of the CIDH piles for piers 2 and 3; constructing the pier columns; later removal of in-water piers supporting the existing bridge using a wire saw; and, driving H piles to support the two temporary work trestles and the falsework. Of the activities listed that would occur during Project construction, only driving H piles would result in sufficient noise to potentially affect winter-run chinook salmon.

To determine the impact on winter-run chinook salmon due to changes in noise levels, a hydroacoustical analysis was conducted using injury and behavior threshold standards for fish from the *Technical Guidance for Assessment and Mitigation Hydroacoustic Effects of Pile Driving on Fish (Guidance) (February 2009)*. Injury thresholds in this document were established for peak sound pressure levels (peak) at 206 decibel (dB) and accumulated sound exposure levels (SELacc) at 187 dB (183 dB for fish weighing less than 2 grams). The behavior threshold was established at 150 dB, as determined by the root mean square (RMS). Based on information provided in the Guidance, it could be estimated that driving H piles for the temporary trestle and temporary falsework would result in maximum peak sound levels of 190 dB, SEL of 160 dB, and RMS of 175 dB at a distance of 32.8 feet from the pile driving activities. The rate at which sound pressure attenuates (i.e., transmission loss constant) was also determined as noise levels are naturally attenuated by water. To be conservative, a transmission loss constant of 20 dB was used in the analysis.

An acoustical impact area was calculated as part of the hydroacoustical analysis. An acoustical impact area is the distance from the noise source (in this case pile driving activities) to the point at which the target and behavior thresholds are reached and can be calculated for the peak, SELacc and RMS.

Based on calculations, the acoustical impact area based on SELacc for fish weighing less than 2 grams extends 105 feet from the noise source (in this case pile driving activities), the threshold underwater noise level of 187 dB for fish weighing 2 grams or greater extends 105 feet from the pile driver, and noise exceeding the 150 dB behavioral threshold extends 584 feet from the pile driver. As discussed above, the suitable spawning habitat identified in field surveys is located 344 feet downstream of the Proposed Project. This area would be covered by anti-spawning mats prior to the start of construction to minimize the potential for fish weighing less than 2 grams to be present in the acoustic impact areas as a result of spawning activities. Overall, based on the hydroacoustical analysis, fish weighing less than 2 grams occurring within 105 feet of pile driving and fish weighing 2 grams or greater occurring within 85 feet of pile driving, would be subjected to noise levels exceeding 183 and 187 SELacc injury thresholds for a maximum of 64 days between May 15th and September 30th. Winter-run chinook salmon of all life stages would be subjected to noise levels exceeding the behavior threshold of 150 dB for this same duration.

Project implementation would result in permanent and temporary impacts to the winter-run chinook salmon population in the reach of the Sacramento River where the Project would be located. Permanent impacts to 2.09 acres of Shaded Riverine Aquatic Habitat (SRA) consisting of valley oak riparian would occur during construction of the new bridge as a result of the new location of the roadway/bridge alignment. The permanent loss of SRA habitat would decrease shading over the river and reduce the natural thermoregulation in the section of the river in the BSA. The new bridge, however, would be substantially wider than the existing bridge and would provide more shaded areas; thus minimizing the permanent impact. Permanent impacts to 0.01 acre of riverine habitat (suitable for migration and/or rearing) would also occur during construction of the two bridge support columns.

Temporary impacts to 0.95 acre of riverine habitat that could be used for migration and/or rearing would occur during installation of the temporary gravel work pads over a period of approximately 21 months. Installation of the gravel pads would result in the Sacramento River channel being narrowed to a width of 200 feet for approximately 125 feet potentially reducing the migration ability for winter-run chinook salmon. Analysis has determined that the maximum water velocities through this narrowed section would be approximately 7.8 feet/second at a flow rate of 50,000 cubic feet/second. Cruising speeds for adult chinook salmon range up to 4 feet/second, while sustained speeds range up to 10 feet/second, and darting speeds range up to 22 feet/second. Adult chinook salmon would be able to navigate through the narrowed area of the Sacramento River for the duration that the gravel work pads would be in place during Project construction. Juvenile chinook salmon in the BSA would be holding or out-migrating (not migrating upstream); therefore, the increase in water velocities through the 200-foot wide opening would not impact the fish in this life stage. Finally, installation of the anti-spawning mats between March 1st and April 15th would result in the temporary loss of approximately 0.08 acre of potential spawning habitat for approximately 6.5 months, until the mats are removed from the Sacramento River between October 15th and October 30th.

Mitigation measures BIO-33 through BIO-46 would be implemented to reduce temporary and permanent impacts to the winter-run chinook salmon located in the Sacramento River within the BSA. With implementation of these mitigation measures temporary and permanent impacts to winter-run chinook salmon and their habitat would be less than significant.

It should be noted that the bottom 1-foot-deep gravel from the temporary work pads would be left in place on the river bottom at the end of Project construction. The gravel left in place would create approximately 0.95 acre of new spawning habitat.

Central Valley Spring-Run Chinook Salmon

Central Valley spring-run chinook salmon can occur in the reach of the Sacramento River within the BSA during all life stages. Similar to the winter-run chinook salmon, salmon redds or suitable spawning habitat for this species was not observed in the BSA. However, an area of quality spawning habitat (an area 25 yards long by 15 yards wide) was identified in the riverbed beyond the BSA boundary. Suitable migration habitat and rearing habitat for spring-run chinook salmon exist within the BSA boundary.

Hydroacoustic, temporary, and permanent impacts for this species would be similar to the impacts for the winter-run chinook salmon described above. Mitigation measures BIO-33 through BIO-46 would be implemented to reduce such impacts to this species and its habitat within the BSA. With implementation of these mitigation measures impacts to spring-run chinook salmon and their habitat in the BSA would be less than significant.

Southern Distinct Population Segment (DPS) of North American Green Sturgeon

Critical habitat for the North American green sturgeon is located in the reach of the Sacramento River within the BSA. North American green sturgeon can occur in the reach of the Sacramento River in the BSA during migration and rearing; however, based on field surveys of the riverbed, no suitable spawning habitat for this species was identified.

Potential temporary and permanent impacts of the North American green sturgeon are the same as those of the winter-run chinook salmon as describe above. However, the Proposed Project would not result in the loss of 0.08 acre of potential spawning habitat while the spawning mats are in place since the this habitat is not suitable for spawning of North American green sturgeon. Migration of the North American green sturgeon could be temporarily impacted due to the narrowing of the Sacramento River channel to 200 feet wide when the temporary work pads are installed. According to studies, sturgeons have been documented successfully negotiating currents greater than 8 feet/second in bursts. Therefore, considering the narrowed channel would have maximum water velocities of 7.8 feet/second at a flow rate of 50,000 cubic feet/second, the green sturgeon would be able to pass through the opening. Juvenile green sturgeon in the BSA would either be hold or out-migrating (not migrating upstream); therefore, the increased water velocity would not impact this species in this life stage.

Mitigation measures BIO-33 through BIO-46 would be implemented to reduce such impacts to this species and its habitat within the BSA. With implementation of these mitigation measures impacts to North American green sturgeon and their habitat in the BSA would be less than significant.

Central Valley Steelhead DPS

The reach of the Sacramento River within the BSA is within designated critical habitat for Central Valley steelhead and, therefore, this species has the potential to occur within the BSA during all life

stages. Based on field surveys, no suitable spawning habitat for steelhead was observed within the BSA; however, an area approximately 25 yards long by 15 yards wide of suitable spawning habitat was identified outside of the boundary of the BSA. The reach of the Sacramento River in the BSA provides suitable migration habitat for adults spawning upstream and out-migrating smolts. The BSA also provides suitable rearing habitat for juveniles and fry of this species.

Hydroacoustical, temporary and permanent impacts to Central Valley steelhead would be the same as those described above for the winter-run chinook salmon. As described above, water velocities through the 200-foot width of the Sacramento River channel when the temporary work pads are in place would be approximately 7.8 feet/second at a flow rate of 50,000 cubic feet/second. Typical cruising speeds for adult steelhead range up to 5 feet/second, while typical sustained speeds range up to 15 feet/second, and darting speeds range up to 27 feet/second. Based on the swimming speeds of this species, maintaining a speed of 7.8 feet/second for 125 feet would be well within range for adult steelhead. Juvenile steelhead in the BSA would be holding or out-migrating (not migrating upstream); therefore, the increase in water velocities through the 200-foot width would not impact the species in this life stage.

Mitigation measures BIO-33 through BIO-46 would be implemented to reduce such impacts to this species and its habitat within the BSA. With implementation of these mitigation measures impacts to Central Valley steelhead and their habitat in the BSA would be less than significant.

The footprint of the Proposed Project has changed due to the new design being implemented. A larger BSA has been identified and new impacts have the potential to occur to biological resources when compared to the biological impacts that would have occurred under the original design of the Project as analyzed in the 2007 IS/MND. New mitigation measures have been identified which would be implemented during construction and operation of the Proposed Project under the new design. Implementation of these mitigation measures would reduce impacts to the biological resources within the BSA to a less than significant level.

4. Cultural Resources

Original Project Description

The 2007 IS/MND included analysis of Cultural Resources based on a *Cultural Resource* document that was prepared by Hughes Environmental Consultants in 2002. The existing Jellys Ferry Bridge was built in 1949 and was 58 years old at the time of the 2007 IS/MND approval. The Caltrans Historic Bridge Inventory Team for Tehama County lists Jellys Ferry Road Bridge as not being eligible for listing on the National Register of Historic Places; however, the bridge was less than 50 years old at the time when Caltrans completed their eligibility inventory. The bridge was re-evaluated for the 2007 IS/MND and Caltrans concluded that the bridge retains historic integrity, but lacks sufficient historical significance to meet the criteria for listing on the National Register or California Register. An evaluation of the buildings on Table Mountain Ranch was conducted as part of the environmental review for the 2007 IS/MND because the buildings appeared to be older than 45 years. These buildings were found to lack sufficient historical integrity and/or significance to meet the criteria for listing on the National or California Register. Finally, a segment of a historic-era road (CA-THE-1793-H which was previously recorded within the Project boundary) was not relocated during field surveys that were conducted on-site. A preliminary evaluation was done on this historic resource which indicated that the road is not likely to meet the criteria for listing on the National or

California Register. The 2007 IS/MND concluded that impacts to historic resources would be less than significant with implementation of the Original Project.

Field surveys conducted for the 2007 IS/MND indicated that no archaeological or paleontological resources were identified within or adjacent to the Original Project boundary. Additionally indications of the burial of human remains (burial sites of Native Americans) were not present. The 2007 IS/MND concluded that impacts to archaeological and paleontological resources as well as human remains would be less than significant with implementation of the Original Project. The 2007 IS/MND presented standard mitigation measures that would be implemented in the event that undiscovered (unknown) archaeological/paleontological resources were unearthed during construction activities.

Proposed Project Discussion

The Proposed Project includes a shift in alignment from the Original Project design and includes a larger area that may contain cultural resources (58.92 acres for the Proposed Project compared to 21 acres for the Original Project) that may be impacted. Based on this new design and larger area of potential impacts for the Proposed Project a *Historic Property Survey Report/Archaeological Survey Report (HPSR-ASR)* was completed on January 10, 2014. In late 2013 two requests were sent to the Northeast Information Center to ensure that historical areas within or adjacent to the Proposed Project were using the most current baseline data. The records search identified the following historical cultural resources within the area of the Proposed Project:

- *CA-TEH-1793H*: This is a mid- to late-19th century, approximately two-mile-long unpaved road that links the Jellys Ferry/Jellys Ranch area with Inks Creek to the east. A small portion of this cultural resource is located within the impact area of the Proposed Project.
- *CA-TEH-1977H*: This is an approximately eight-mile-long segment of Jellys Ferry Road, originally constructed in the mid- to late-19th century. The northern end of the recorded portion of these resources is on the south bank of the Sacramento River (in the impact area of the Proposed Project) and continues south to Interstate 5 (I-5).
- *Jellys Ferry Road Bridge (Bridge # 08C-0043)*: This is identified in the *California Historic Bridge Inventory* as a Category 5 (not eligible for the National or Historic Places Register). This bridge, built in 1949, is a rivet-connected, steel Parker Through-Truss bridge with five spans measuring 940 feet long by 18 feet wide, and has a 15-foot vertical clearance. The bridge was re-evaluated and confirmed as ineligible for listing in the National Register.

The records searches also identified the following prehistoric cultural resource approximately 40 feet from the potential impact area of the Proposed Project:

- *CA-TEH-1783*: This is an early human habitation site with midden, basalt fire-affected cobbles, chert and obsidian flakes, and shellfish remains.

A field survey that was conducted for the Proposed Project identified two previously unrecorded prehistoric archaeological sites and a previously unrecorded portion (identified as an archaeological resource) of CA-THE-1783:

- *JFB-1:* This is a 131-foot-long by 9.8-foot-wide prehistoric archaeological site consisting of 11 lithic tools within the Proposed Project area.
- *JFB-2*: This is a 98.4-foot-long by 49.2-foot-wide prehistoric archaeological site consisting of four 7.8 to 23.6-inch-long black, fine-grained metavolcanic flakes beneath an oak tree within the Proposed Project area.
- *CA-THE-1783 (previously unrecorded archaeological portion of resource)*: An additional 98.4-foot-long by 410.1-foot-wide portion of prehistoric archaeological site CA-THE-1783, the "Jelly Mound" was identified in-field by archaeologists in 2013.

As described above, due to the increased size of the Proposed Project compared to the Original Project, new historical cultural and archaeological resources have been identified that could potentially be impacted by Proposed Project implementation. New mitigation measures (not incorporated into the 2007 IS/MND) has been identified below in Section C Mitigation Measures (Mitigation Measure CULT-1 through CULT-5) that if implemented would reduce impacts to the previously unrecorded prehistoric archaeological sites to a less than significant level. Impacts to the historical cultural resources would be less than significant and no new mitigation measures would be required.

Similar to the conclusions of the 2007 IS/MND for the Original Project, the Proposed Project is not located in an area where paleontological resources/features were identified. Furthermore, consultation with Native American tribal representatives indicated that the Proposed Project was not in an area where Native American cultural resources are located. Similar to the Original Project, the Proposed Project would implement mitigation measures in the event that undiscovered/unknown historic cultural, archaeological, paleontological resources or human remains (Native American origin) are unearthed during construction activities. The Original Project mitigation measures have been updated with new language to reflect 2014 conditions and standards for unearthing undiscovered cultural resources due to Proposed Project implementation. With implementation of the listed mitigation measures, impacts would be less than significant.

No new or substantially more severe significant impacts would occur. A new mitigation measure has been added due to the increase in size of the Proposed Project area and its potential impact to newly identified cultural/archaeological resources. Original Project mitigation measures have been updated to reflect 2014 language and standards for the protection of undiscovered/unidentified cultural resources.

5. Greenhouse Gas Emissions

Since the adoption of the 2007 IS/MND, the CEQA Checklist has been updated to include a discussion of potential project impacts on greenhouse gas emissions. As greenhouse gas emissions were not evaluated in the 2007 IS/MND, the Proposed Project's potential to generate greenhouse gas emissions and/or conflict with an applicable plan or policy adopted for the purpose of reducing greenhouse gas emissions is described below.

A general scientific consensus exists that global climate change is a result of increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere. While many

studies show evidence of warming over the last century and predict future global warming, the causes of such warming and its potential effects are far less certain. In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

GHGs are present in the atmosphere naturally, are released by natural sources, or formed from secondary reactions taking place in the atmosphere. The six gases that are widely seen as principle contributors to global climate change are: Carbon dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexaflouride (SF_6). The primary existing sources of human-causes GHGs in the Proposed Project area are vehicles emissions.

The Proposed Project is located in the jurisdiction of the Tehama County Air Pollution Control District (TCAPCD) which is a part of the North Sacramento Valley Air Basin (NSVAB). The TCAPCD has established analysis techniques for determining project's impacts to GHG emissions through their *Planning and Permitting Air Quality Handbook: Guidelines for Assessing Air Quality Impacts* (December 2009). This document does not contain GHG construction or operational thresholds for projects in determining their impacts to GHG emissions; however, TCAPCD uses the 900 metric tons per year of CO_2 and CO_2 equivalents screening criteria referenced in the California Air Pollution Control Officers Association (CAPCOA) whitepaper as a conservative criteria to determine which projects in the TCAPCD jurisdiction require further analysis and mitigation with regard to Climate Change and GHG impacts.

The TCAPCD uses the 900-metric ton screening criteria (CO_2 or CO_2 equivalents generated annually) as conservative criteria for determining which projects require further analysis and mitigation with regard to climate change. The following bulleted list describes the general sizes of land use projects (note that the Proposed Project is a transportation project and would not fall under analysis requirements of the TCAPCD) that would generally require this analysis; however, the determination of need for a climate change analysis must consider project-specific details, including proposed stationary sources that are collocated, that could contribute to a climate change impact. In many land use projects, the project proponent can use URBEMIS software to model most CO_2 and CO_2 equivalents:

- single Family Residential Project developed with more than 50 units;
- apartments/Condominiums developed with more than 70 units;
- general Commercial Office Space larger than 35,000 square feet;
- retail Space larger than 11,000 square feet; and,
- supermarket/Grocery Space larger than 6,300 square feet.

The TCAPCD does not identify when transportation projects would require a climate change analysis.

The primary existing sources of human-caused GHGs in the Proposed Project area are vehicle emissions. As described in Section XV Transportation/Traffic of the 2007 IS/MND, implementation of the Original Project would not result in a significant increase in traffic on area roadways nor would the Proposed Project. The Proposed Project, once completed, would not result in increased GHG

emissions because the project design would not cause an increase in regional vehicle trips or vehicle miles traveled (VMT) above current levels and would not introduce any other new sources of GHG emissions. The Proposed Project does not include widening of the existing roadway nor does it include the addition of lanes to Jellys Ferry Road, the new Sacramento River Bridge, or the Overflow No. 2 Bridge. Furthermore, the Proposed Project does not include stationary sources that generate CO_2 or CO_2 equivalents that typically generate GHGs. The Proposed Project would not create significant new regional vehicle miles traveled or other long-term GHG emissions; therefore, it would not conflict with any plan or policy intended to reduce long-term GHG emissions.

Construction of the Proposed Project would produce combustion emissions from various sources. During site preparation and construction of the Proposed Project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane, and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment which would be used on-site during Proposed Project construction. Exhaust emissions from on-site construction activities and equipment would vary daily as construction activity levels change along the length of the Proposed Project site. CO_2 and CO_2 equivalents generated during Proposed Project construction are not expected to exceed the 900-metric ton screening criteria used by TCAPCD due to the size of the transportation project and the duration construction activities are expected to occur. Impacts associated with GHG emissions during Proposed Project construction activities would be less than significant.

It should be noted that GHG emission analysis during construction of the Original Project was not discussed in the 2007 IS/MND. The analysis did not specifically indicate if CO_2 or CO_2 equivalents emissions would be generated during Original Project construction; however, it is assumed that some amount of GHG emissions would have been generated. However similar to the Proposed Project, such emissions would be minimal due to the Original Project size, and the temporary duration of the construction activity period.

Global warming is not "new information of substantial importance which was not known and could not have been known" at the time of the 2007 IS/MND approval because global warming has been known to exist and has been studied/analyzed by the scientific community since the 1970s. Because this impact is not significant and global warming is not "new information" within the meaning of Public Resources Code Section 2116 and State CEQA Guidelines Section 15162, none of the triggers under those sections requiring the preparation of a Subsequent IS/MND are fulfilled with regard to this issue.

No new or substantially more severe significant impacts would occur and therefore no mitigation measures would be required with implementation of the Proposed Project.

6. Hydrology and Water Quality

Original Project Discussion

The 2007 IS/MND provides a discussion and analysis of potential impacts to hydrology and water quality due to implementation of the original design of the proposed Project. The analysis that was conducted was based on the *Preliminary Hydraulic Analysis* prepared by Norman S. Braithwaite,

dated July 18, 2003. The Original Project would follow Caltrans erosion control regulations that would include reseeding upland areas. A spill prevention plan, and Caltrans and Tehama County erosion control features, would be implemented for the Original Project as well as a Stormwater Pollution Prevention Plan (SWPPP) that would act as the overall document designed to provide measures to mitigate potential water quality impacts associated with construction and operation of the Original Project. The SWPPP would have included the following:

- Specific and detailed Best Management Practices (BMPs) designed to mitigate construction-related pollutants. Specific and detailed BMPs included in the SWPPP would include practices to minimize contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP would specify properly designed centralized storage areas that keep such materials out of the rain.
- Specific BMPs designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased if grading is performed during the rainy season, as disturbed soil can be exposed to rainfall and stormwater runoff. If grading must be conducted during the rainy season, the primary BMPs selected would focus on erosion control to keep sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) would be used only as secondary measures. Entry and egress from construction site activities would be carefully controlled to minimize off-site tracking of sediment. Vehicle and equipment wash-down facilities would be designed to be accessible and functional both during dry and wet conditions.
- A monitoring program would be implemented by the construction site supervisor that includes both dry and wet weather inspections.
- Measures would be designed for all portions of the completed development to mitigate potential water quality degradation.

The Original Project would involve disturbance to perennial drainage along the Sacramento River and disturbance to upland and riparian vegetation potentially increasing erosion, sedimentation, and turbidity that could impact water quality in the vicinity. The Original Project would remove gravels during construction and would thereby disturb the Sacramento River and expose fine material that normally settles in the lower sections of the riverbed. Grading activities and removal of gravel from the riverbed would slightly alter the drainage pattern of the Original Project and the increase of impermeable materials would create more stormwater runoff. Implementation of the spill prevention plan, erosion control features and SWPPP would ensure that water quality standards or waste discharge requirements are not exceeded during Original Project construction and operation and would ensure that drainage pattern alteration does not induce flooding in the area.

The Original Project (except for the bridge structure) would not directly discharge surface stormwater runoff into the Sacramento River and associated drainages. The Original Project would develop new drainage facilities, including channels, swales, detention basins, culverts, and drop inlets that would be sized to handle the anticipated flows.

The Original Project is located in a 100-year flood hazard area; however, design features would be implemented to reduce the potential for impediment or redirection the flood flows. The Original

Project design would include a greater clearance for drift beyond the standards of Caltrans. The longer spans and fewer piers of the new bridge associated with the Original Project would reduce the potential for accumulation of drift thus causing the flow of the Sacramento River to be impeded.

Overall implementation of the Original Project would have a less than significant impact on hydrology and water quality issues in the area.

Proposed Project Discussion

The design of the Proposed Project differs from that of the Original Project. The alignment of the Proposed Project would be shifted and located in an area where water frequently overtops Jellys Ferry Road (to the north of the Sacramento River). Overflow from the Sacramento River at the Overflow No. 1 location (just north of the existing north abutment) is conveyed through the Jellys Ferry Road Bridge while overflow at the Overflow No. 2 location (further to the north of the existing north abutment) would be conveyed through an additional Overflow No. 2 Bridge. The proposed Overflow No. 2 Bridge (associated with the Proposed Project) would prevent frequent overtopping in the low-lying area of Jellys Ferry Road north of the proposed Jellys Ferry Road Bridge northbound approach by passing flow from the adjacent Sacramento River overflow channel under this second bridge structure. At this location, the maximum embankment fill height would be approximately 11 feet, corresponding to the 100-year flood level of hydraulic service to prevent overtopping of the roadway. Stormwater runoff from Jellys Ferry Road south of the proposed bridge would be collected in roadside ditches. The ditches would convey the stormwater runoff south and discharge into an existing ephemeral drainage system. Stormwater runoff from the proposed Jellys Ferry Road Bridge would be collected in deck drains and conveyed to a new drainage system on the north side of the Sacramento River. This drainage system would consist of a series of ditches along the toe of the roadway embankment which would eventually convey the stormwater runoff from the bridge and the north approach roadway, into either the overflow channel on the west side of the north approach, or through the BLM Recreation area where it would eventually empty into the Sacramento River downstream of the Jellys Ferry Road Bridge. The drainage system would be designed to discharge water to the overflow channel or Sacramento River in a manner consistent with pre-project conditions.

North of the Jellys Ferry Road Bridge, along the south approach of the proposed Overflow No. 2 Bridge, storm water run-off from Jellys Ferry Road would be collected in ditches along the toe of the roadway embankment on either side of the road and would be conveyed north to discharge into the Overflow No. 2 channel. Storm water run-off from the Overflow No. 2 Bridge would be collected along the curb or in deck drains and would be routed to the drainage systems at each abutment. Run-off from the north half of the bridge would be routed to the drainage system at the north abutment while run-off from the south half of the bridge would be routed to the drainage system at the south abutment. North of the Overflow No. 2 Bridge, stormwater runoff from Jellys Ferry Road would be collected in ditches at the toe the road embankment and would be conveyed south to eventually discharge into the Overflow No. 2 Channel.

Similar to the Original Project, the Proposed Project would implement a Spill Prevention Plan, a SWPPP, and Caltrans and Tehama County approved water quality and erosion control design features to improve the hydrology in the area and reduce impacts to the quality of surface water. A *Design Hydraulic Study* (January 2014) and a *Water Quality Assessment Report (WQAR)* (March 2014) has

been prepared for the Proposed Project which discusses potential hydrological issues and presents mitigation to reduce such impacts to a level that is less than significant. Information and analysis presented below is based on these current reports.

Hydrology

The Proposed Project site is located in an area that has experienced floods in the recent past. Water was observed to flow over Jellys Ferry Road to the north of the existing bridge during the flood of January 1, 1997, a flood of approximately 10-year recurrence in the Sacramento River at this location. During infrequent floods in the Sacramento River flow may cross Jellys Ferry Road at a location approximately 500 feet north of the existing bridge and at another location approximately 2,500 feet north of the existing bridge. Overflow at the location nearest to the bridge is due to hydraulic conditions in the Sacramento River immediately upstream of the bridge. It is unlikely that hydraulic conditions in the Sacramento River near the Jellys Ferry Road Bridge have much influence at the more distant location. As such, flow over Jellys Ferry Road at the more distant location is considered substantially independent of flood hydraulic conditions in the Sacramento River at Jellys Ferry Road.

The *Design Hydraulic Study* has been prepared with the existing hydrology conditions taken into consideration to determine the appropriate final design of the Jellys Ferry Road Bridge and Overflow No. 2 Bridge associated with the Proposed Project. Caltrans and FHWA recommend that new replacement bridges be designed with a minimum soffit elevation equal to the water surface elevation of the most probable 50-year flood (Standard Design Flood) plus appropriate clearance for drift or to the water surface elevation of the most probable 100-year flood (Base Flood) with no clearance for drift, whichever is higher. The Central Valley Flood Protection Board (CVFPB) requires that new and replacement bridges have a lowest soffit elevation 3.0 feet above the CVFPB Design Flood which in this reach of the Sacramento River is a 10-year flood. Therefore, the Caltrans and FHWA criterion has been used for the minimum design standards for the new Jellys Ferry Road Bridge and the Overflow No. 2 Bridge. The *Design Hydraulic Study* provides recommendations based on the Caltrans and FHWA for designing the new Jellys Ferry Road Bridge and Overflow No. 2 Bridge to ensure that these structures do not impede flood flows during 50-year floods.

Water Quality

The Proposed Project is located on the segment of the Sacramento River between Cottonwood and Red Bluff. According to the 2010 Section 303(d) List of Impaired Waters, this section of the Sacramento River has beneficial uses designated as Commercial and Sport Fishing (COMM) and Warm Freshwater Habitat (WARM) impaired with Mercury due to “substrate (hardrock) mining” and “unknown toxicity” due to “source unknown”, respectively. Total Maximum Daily Loads (TMDLs) for Chlorpyrifos and Diazinon (both man-made pesticides) have been established for this section of the Sacramento River.

Construction activities occurring in the channel of the Sacramento River as well as placement of gravel work pads has the potential to disturb sediment on the bottom of the Sacramento River channel leading to potential impacts to downstream surface waters. Additionally, soils would be exposed to the north and south of the Jellys Ferry Road Bridge due to construction activities associated with approach improvements, roadway realignment, and development of the Overflow No. 2 Bridge.

Temporary soil erosion and sediment disturbance control measures would be implemented during construction of the Proposed Project to reduce erosion impacts. Potential impacts to Water Quality have been analyzed in the *WQAR* for the following: Changes to the Physical/Chemical Characteristics of the Aquatic Environment; Changes to the Biological Characteristics of the Aquatic Environment; and, Changes to the Human Characteristics of the Aquatic Environment. The *WQAR* provides measures to reduce the potential for project construction activities to cause degradations in existing surface and ground water quality.

Once operational the Proposed Project would increase the amount of impervious surfaces in the area by 5.04 acres. The impervious surfaces would generate an increase in stormwater runoff in the Proposed Project area. As discussed above, the Proposed Project would be designed with modern stormwater collection and conveyance systems on Jellys Ferry Road, the Overflow No. 2 Bridge and the Jellys Ferry Road Bridge. Additionally, the *WQAR* provides measures to reduce potential degradations in surface and ground water quality due to operation of the Proposed Project.

Based on the analysis presented in the *Design Hydraulic Study* and the *Water Quality Assessment Report* on the new design of the Proposed Project mitigation measures WQ-1 through WQ-5 have been developed to ensure that hydrology and water quality impacts are reduced. With implementation of mitigation measures WQ-1 through WQ-5 (presented below) impacts to hydrology and water quality conditions in the Proposed Project area would be less than significant.

No new or substantially more severe significant impacts would occur; however, mitigation measures would be implemented to reduce impacts to hydrology and water quality in the area during Proposed Project construction and operation.

B. OTHER TOPICS EVALUATED IN THE 2007 IS/MND

1. Air Quality

Original Project Discussion

The 2007 IS/MND indicated that the Original Project is located in the jurisdiction of the Tehama County Air Pollution Control District (TCAPCD). In 2007 the air quality attainment status for the TCAPCD was as follows: Ozone-Unclassified/Attainment; Carbon Monoxide – Unclassified; Particulates (PM_{10} and $PM_{2.5}$) – Unclassified/Attainment; Sulfates – Attainment; and, Hydrogen Sulfide – Unclassified. According to the 2007 IS/MND, the Original Project had the potential to increase ambient air quality conditions in the area due to emissions that would be generated during construction activities. Construction of the Original Project had the potential to expose sensitive receptors (residents in housing north and south of the Original Project site) to short-term increases in emissions of airborne particulates (PM_{10} and $PM_{2.5}$) and fugitive dust, as well as small quantity increases of emissions associated with the use of construction equipment. The 2007 IS/MND suggested that the implementation of the "Basic Control Measures" (as listed in the Original Project description) would reduce construction impacts to a level that is less than significant. In regards to increased air pollutant emissions from operation of the Original Project, the 2007 IS/MND indicated that the proposed bridge replacement and roadway approach improvements along Jellys Ferry Road would not generate new vehicular trips (vehicle usage along local roadways is the major contributor of air pollution emissions in the area). Therefore, operation of the Original Project would not increase air pollution emissions over that of existing conditions in the area. The 2007 IS/MND indicated that

during construction of the Original Project, the potential exists for increased odors in the area due to the use of diesel-driven construction equipment. This increase was identified as temporary during construction of the Original Project and that such odors would disperse rapidly in the area. Overall, the 2007 IS/MND found that the Original Project would have a less than significant impact on air quality and that no mitigation measures would be necessary.

Proposed Project Discussion

Similar to the Original Project, the Proposed Project is under the jurisdiction of the TCAPCD. Since adoption of the 2007 IS/MND the TCAPCD has updated its air quality attainment status as further described in the *Planning and Permitting Air Quality Handbook* prepared by TCAPCD in December 2009. The updated TCAPCD air quality attainment status is shown in Table A: TCAPCD Ambient Air Quality Attainment Status.

Table A: TCAPCD Ambient Air Quality Attainment Status (2012)

Pollutant	State	Federal
1-hour Ozone	Nonattainment/Moderate	No Federal Standard
8-hour Ozone	Nonattainment	Attainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Particulate Matter (PM_{10})	Nonattainment	Unclassified
Particulate Matter ($PM_{2.5}$)	Unclassified	Unclassified/Attainment

Source: Website: http://www.arb.ca.gov/desig/adm/adm.htm. December 2012.

Similar to the Original Project, the Proposed Project has the potential to generate air pollution emissions during construction activities. The increase in emissions would occur due to the use of construction equipment on-site. Since approval of the 2007 IS/MND, the TCAPCD has recommended mitigation measures that should be implemented to reduce pollutant emissions during construction activities. Implementation of the TCAPCD recommended mitigation measures (identified below in Section III.C.3) would reduce the amount of emissions generated during construction and would result in compliance with TCAPCD standards and regulations. Once operational, the Proposed Project would not generate more vehicle usage in the area on Jellys Ferry Road, and would not contribute to the increase of pollutant emissions over the long-term operation of the bridge. With implementation of the suggested mitigation measures construction impacts to air quality would be reduced to a less than significant level. Overall, construction and operational impacts to air quality from development of the Proposed Project would be less than significant.
The Proposed Project would generate odors during construction due to the use of the construction equipment. However, similar to the Original Project, these odors would be temporary in nature (during the construction period) and would disperse rapidly over the area. No new odors would be generated during operation of the Proposed Project.

No new or substantially more severe significant impacts would occur; however, mitigation measures would be implemented to reduce impacts to air quality of the area during Proposed Project construction and operation.

2. Geology and Soils

Original Project Discussion

The 2007 IS/MND discussed the soil types that were located on the Original Project site and their susceptibility to erosion and loss of topsoil. The soils identified in the area included: Riverwash; Redding gravelly loam; Colombia Sandy Loam; and Colombia Complex, channel. A determination was made that construction activities associated with the Original Project may cause a significant increase in erosion of rock and soil; however, erosion control specifications of Tehama County and Caltrans would be implemented during construction in order to reduce such soil erosion impacts during construction.

Proposed Project Discussion

Since approval of the 2007 IS/MND of the Original Project a *Draft Geotechnical Engineering Report* (February 12, 2010) was completed. The boundary and alignment of the Proposed Project has been shifted compared to the location of the Original Project. According to the Tehama County General Plan Alquist-Priolo, earthquake fault zones are not located within the County, and the Proposed Project would not be exposed to a rupture from a designated Alquist-Priolo Fault. Additionally, the California Division of Mines and Geology has indicated that there are no active or potentially active faults within Tehama County. The nearest inactive fault to the Proposed Project site is the Battle Creek Fault located 6 miles to the northwest. Areas in Tehama County can experience seismic ground shaking from active faults in adjacent Counties; however, due to the distance to such faults, Tehama County is located in a moderate ground shaking zone. Geologic hazards (ground failure, liquefaction, and seiche) associated with seismic activity also have low probabilities of occurring within Tehama County.

The following soils are located within the boundary of the Proposed Project: Columbia loam, 0 to 2 percent slopes; Zamora loam, 0 to 3 percent slopes; Cortina Complex; Riverwash; Columbia fine sandy loam, 3 to 8 percent slopes; Columbia complex, channeled; Redding gravelly loam, 0 to 3 percent slopes; and, Arbuckle gravelly loam, clayey substratum, channeled. According to the Natural Resources Conservation Service (NRCS) Web Soil Survey all of these soils have a “slight” erosion potential. Implementation of the Proposed Project during construction activities may have the potential to cause slight to moderate erosion to the soils listed above. The Proposed Project would incorporate Best Management Practices (BMPs) from erosion control specifications of Tehama County and Caltrans to reduce substantial erosion of the soils on site or loss of topsoil.

The design of the Proposed Project would take into consideration the engineering suggestions presented in the *Draft Geotechnical Engineering Report* to reduce potential impacts that could occur do to the various geological conditions in the area. Development of the Proposed Project would result in less than significant geology and soils impacts. Similar to the analysis of the Original Project in the 2007 IS/MND, no mitigation measures would be required for the Proposed Project as impacts would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

3. Hazards and Hazardous Materials

Original Project Discussion

The 2007 IS/MND indicates that construction of the Original Project has the potential to introduce hazardous materials (e.g., fuel, lubricant, concrete curing materials) into the area. A *Hazardous Waste Environmental Assessment* was prepared for the Original Project and this document indicated that there are no known hazardous waste sites within or adjacent to the area. Undocumented hazardous waste sites may be located in the area since land parcels are (and have been) occupied by agricultural operations. A Spill Prevention Plan was prepared for the Original Project to reduce accidental hazardous releases during construction activities and implementation of Caltrans Standard Specifications were expected to protect construction workers and general public from potential release of hazardous materials and/or wastes.

The 2007 IS/MND indicated that public safety and emergency services would be informed to traffic changes in the area to reduce impacts to local adopted emergency response or evacuation plans.

The Original Project is in an area at risk for a wild land fire and construction activity on site (using equipment that could produce sparks) increases the potential fire hazard. The construction workers would have access to fire extinguishing equipment in the event of a conflagration and could also contact fire emergency personnel in the event of a construction-related fire.

Overall, the 2007 IS/MND indicated that the Original Project would not produce hazardous conditions nor would it produce hazardous materials; therefore, impacts would be less than significant. No mitigation measures were suggested to reduce impacts to a level that is less than significant.

Proposed Project Discussion

During construction the Proposed Project (similar to the Original Project) has the potential to result in spills of hazardous materials (e.g., diesel fuels, oil, etc.). A Spill Prevention Plan would be developed prior to commencement of Proposed Project construction and would be located on-site through the duration of construction activities. The construction contractor would also implement BMPs that would be compliant with Caltrans and Tehama County standards for handling hazardous wastes during construction. The Proposed Project would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials nor create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions releasing hazardous materials into the environment. No mitigation measures are necessary as impacts would be less than significant.

The Proposed Project would not emit hazardous emissions or handle hazardous materials near an existing or planned school, as the nearest school is located more than one-quarter mile away.

Research was conducted on the *California Department of Toxic Substance Control EnviroStor* website to determine if parcels within or adjacent to the Proposed Project were on a list of hazardous

materials sites. No parcels within or adjacent to the Proposed Project site were identified as being on a list of hazardous materials sites.

The Proposed Project is located in a rural portion of Tehama County and there are no public or private use airports (or airfields) near the site. The Proposed Project is not located in an airport land use plan and would not expose construction workers to hazards associated with airport usage (e.g., airplane crashes, loud noise associated with arriving/departing airplanes, items falling off of airplanes, etc.).

Prior to the commencement of Proposed Project construction, the construction contractor would notify local law enforcement and fire department/emergency medical technician staff that circulation flow along Jellys Ferry Road may be disrupted. The construction contractor would develop a *Traffic Detour Plan*, if necessary. The *Traffic Detour Plan* would be provided to emergency personnel that service the Proposed Project area. Road closures during Proposed Project construction are expected to be minimal since the new bridge is expected to be developed first (prior to the existing bridge being removed). Vehicles would continue to use the existing bridge to cross the Sacramento River.

The CALFIRE Fire Hazard Severity Zones (FHSZ) Map website was accessed to determine if the Proposed Project was in an area designated with a high wildland fire potential. According to CALFIRE mapping, land parcels in the Proposed Project vicinity south of the Sacramento River are in a moderate FHSZ State Responsibility Area. The parcels along the north side of the Sacramento River are located in a Federal Responsibility Area (which is not designated as a FHSZ by CALFIRE). Similar to the Original Project, the construction contractor during construction of the Proposed Project would use BMPs to ensure that all construction equipment is in good working order and spark arrestors are installed on equipment. The use of construction equipment capable of producing sparks would also be used sparingly in areas of dry brush/grasses.

Overall, similar to the Original Project, the Proposed Project would not create hazards or use or expose construction workers to hazardous materials. Impacts would be less than significant and no mitigation measures would be required.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

4. Land Use and Planning

Original Project Discussion

The 2007 IS/MND indicated that the Original Project would be developed on BLM Recreation land designated for crops and grazing. The 2007 IS/MND determined that the Original Project would not create any new community divisions, conflict with any land use plan, policy, or regulation, and would not have conflicted with any applicable habitat conservation plan or natural community conservation plan. Analysis indicated that no impacts to land use and planning would have occurred with development of the Original Project.

Proposed Project Discussion

The Proposed Project, when compared to the Original Project, would shift the location and realignment Jellys Ferry Road north of the proposed bridge. The Proposed Project is located in a rural area of Tehama County and the nearest established community is Red Bluff. Development of the Proposed Project would not physically divide an existing established community.

It should be noted that according to the Tehama County Assessor's Office parcel (APN) 009160011 is currently under a Williamson Act Contract (this parcel was enrolled in August 1980 and the Williamson Act Contract took effect January 1981). Parcel 009160011 is approximately 23.4 acres in size and implementation of the Proposed Project would temporarily disturb approximately 1.2 acres (5.1 percent) and permanently impact approximately 1.34 acres (5.7 percent) of this parcel. According to Government Code Section 51295, "When an action to condemn or acquire less than all of a parcel of land subject to a contract is commenced, the contract shall be deemed null and void as to the land actually condemned or acquired and shall be disregarded in the valuation process only as to the land actually being taken, unless the remaining land subject to contract will be adversely affected by the condemnation, in which case the value of that damage shall be computed without regard to the contract." The Williamson Act Contract on the portion of parcel 009160011 that would be permanently disturbed would be null and no longer under contract restrictions per the acquisition of this land by a public agency for a public improvement. The nullification of the Williamson Act Contract on the 1.34 acres of land on parcel 009160011 would be in compliance with Government Code Section 51295 and impacts would be less than significant. The final decision to acquire the 1.34 acres of this parcel and proceed with the project as proposed would not be made until the Tehama County Board of Supervisors adopts a Resolution of Necessity in accordance with Code of Civil Procedure.

The Tehama County General Plan Land Use Map identifies land use designations on parcels within and adjacent to the Proposed Project boundary. Land parcels within and adjacent to the Proposed Project area are designated as Rural Small Lot (Zoned R-1, or R-E), Habitat Resource (Zoned NR), Water (No Zoning Designation), Public Facility (Zoned PA) and Valley Floor Agriculture (Zoned EA or U-A). Land use designations would not change due to Proposed Project implementation. The Proposed Project would not conflict with the applicable Land Use Plan of Tehama County. Implementation of the Proposed Project would require acquisition of right-of-way on land maintained and operated by the BLM located in the Sacramento River/Bend Area of Critical Environmental Concern. This land is maintained by a Federal Agency and therefore an Environmental Assessment has been prepared that analyzes potential adverse effects to the BLM land uses under National Environmental Protection Act (NEPA) guidelines. Impacts pursuant to CEQA would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

5. Mineral Resources

Original and Proposed Project Discussions

Analysis of mineral resources was completed in Section X of the 2007 IS/MND for the Original Project. The Original Project was not located in an area with known mineral resources and therefore implementation would not result in a loss of mineral resources. Similar to the Original Project, the

Proposed Project is located in an area that is void of known mineral resources. Implementation of the Proposed Project would not impact mineral resources.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

6. Noise

Original Project Discussion

The 2007 IS/MND discussed potential construction and operational noise impacts associated with the Original Project to sensitive receptors in the area. The nearest sensitive receptor is located south of the Sacramento River within the Original Project area.

The Original Project would not increase traffic volumes along Jellys Ferry Road, and would not increase the ambient noise level of the area during its operation. The design of the Original Project included a realignment of Jellys Ferry Road that would direct vehicles further from the sensitive receptor on the southeast side of the Original Project area. Noise increases at sensitive receptors would not occur with operation of the Original Project; therefore, impacts would be less than significant.

During construction of the Original Project equipment may be used near the sensitive receptor that could cause exposure to temporary noise increases in the area. Construction would be limited to daytime work to reduce exposure to temporary noise level increases at the sensitive receptor to non-sensitive hours of the day (sensitive hours are during the nighttime when people are sleeping). The 2007 IS/MND provided a mitigation measure that would be implemented to reduce temporary increases to noise at sensitive receptor locations. The impacts were considered to be less than significant with implementation of this mitigation measure.

Proposed Project Discussion

Implementation of the Proposed Project would result in similar noise impacts to sensitive receptors adjacent to the site. Two single family residential units (one on parcel 009150361 and one on parcel 009160011) to the east and west of the southern portion of the Proposed Project area have been identified as the closest sensitive receptors.

Jellys Ferry Road in the southern portion of the Proposed Project would remain on same alignment as under existing conditions. The roadway would not be closer to the sensitive receptors when the Proposed Project is operational. The Proposed Project would not increase the width of Jellys Ferry Road nor would it result in the addition of more lanes on the roadway; therefore, vehicle volumes are expected to remain the same on this segment of Jellys Ferry Road as under existing conditions. Proposed Project implementation would not result in an increase in roadway volume, and thus, would not increase ambient noise levels in the area.

During construction activities, equipment would be used on the southern end of the Proposed Project site where the sensitive receptors are located. Construction equipment that would be used, includes, but is not limited to: earthmovers, bulldozers, water trucks, pick-up trucks, mobile cranes, jackhammers, air compressors, pneumatic tools, and scrapers. Typical noise levels as measured 50

feet from active construction equipment could reach up to 91 dB(A). The increase in ambient noise levels would be temporary as construction equipment is operated in the vicinity of the sensitive receptors. The mitigation measure identified in the Original Project has been modified to include temporary noise reductions at the sensitive receptors to reduce impacts to a less than significant level.

Some of the construction equipment that would be used could also cause groundborne vibrations. Groundborne vibration can be a serious concern for residential uses; however, any construction equipment that would be used that generates groundborne vibrations would be used on dismantling of the existing bridge in the confines of the Sacramento River. These activities would be far enough away from the sensitive receptors in that groundborne vibration would not be of concern.

The Proposed Project is not located within an airport land use plan nor is it near a public or private use airport. Implementation of the Proposed Project would not expose construction workers to excessive noise levels from airport activities.

No new or substantially more severe significant impacts would occur; however, the noise mitigation measure recommended in the Original Project would be revised with updated language so that it could be implemented under the Proposed Project.

7. Population and Housing

Original Project Discussion

The 2007 IS/MND indicated that the Original Project would be located within BLM lands and that the Tehama County General Plan designates these parcels as cropland and grazing land uses. The 2007 IS/MND indicates that no housing would be affected due to implementation of the Original Project.

Proposed Project Discussion

The location of the Proposed Project would be shifted from the location proposed for the Original Project, and the Proposed Project boundary would be larger than the Original Project footprint. The Proposed Project includes the demolition of a functionally obsolete Sacramento River Bridge, development of a new (replacement), realigned bridge, approach and departure improvements to Jellys Ferry Road, and development of the Overflow No. 2 Bridge. The Proposed Project is not making a new connection from an urbanized area to a rural area and therefore would not induce indirect or direct substantial population growth in the existing rural area. Development of the Proposed Project would require new right-of-way on the existing BLM land as well as temporary construction easement on parcels located southwest and northeast of the Sacramento River; however, existing housing and population in the area would not be displaced due to Proposed Project implementation. Therefore, no impacts would occur.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

8. Public Services

Original Project Discussion

The 2007 IS/MND indicated that the Original Project would not impact public services such as fire protection, police protection, parks, or other public facilities. The Original Project would have a less than significant impact on public services and parks, specifically, the BLM Recreation area facilities that would need to be relocated (such as the existing restroom building that would be removed and a new restroom building that would be developed on the other side of the bridge).

Proposed Project Discussion

Similar to the Original Project, the Proposed Project would not have any impacts on local public services such as fire protection, police protection, schools, or other public facilities. The Tehama County Fire Department in cooperation with CAL-FIRE provides fire protection services in the Proposed Project area. Station 3/CAL FIRE, Bowman is the nearest fire station to the Proposed Project (2.3 miles northwest) and is located at 18355 Bowman Road, Cottonwood. The Tehama County Sheriff's Department provides police protection service in the area of the Proposed Project. The main office is located at 22840 Antelope Boulevard, Red Bluff approximately 9 miles south of the Proposed Project. The Proposed Project is located within the Evergreen Union School District boundary and the closest school to the Proposed Project is located at 22270 Bend Ferry Road in Red Bluff (approximately 3.6 miles south of the Proposed Project site). The nearest Other Public Facilities are located in Red Bluff. Implementation of the proposed Project would not require these public facilities to be altered, new facilities to be developed, or impact service ratios, response times, or performance objectives; therefore, no impacts would occur.

Portions of the Proposed Project would be developed on BLM Recreation area land. Access to the BLM Recreation area would be modified and a portion of the internal circulation would also be modified due to Proposed Project implementation. It has been determined that the Proposed Project would not significantly impact the values of activities, features, and attributes at this location because:

- the existing single-lane truss bridge (not eligible for National Registry of Historic Places) is being replaced with a new two-lane bridge at approximately the same location;
- the existing bridge, abutments, and pilings would be removed and backfilled to existing grade for continued BLM use after construction;
- existing activities such as use of the Yana Trail, boat ramp, and general public recreation would continue during bridge construction;
- existing features such as signs, fences, boulder barriers, facilities (picnic tables, grill), boat ramp, paths, roads would be replaced in-kind along with shade structures (2) to make up loss of tree shade;
- existing attributes, inherent characteristics, such as open space, parkland, and river would continue to exist after the Proposed Project is completed;
- trees removed during Project construction would be replaced (as mitigated for in Section X Biological Resources), at an approved ratio;

- existing restroom facility would be removed and a new restroom building would be developed on the other side of the newly constructed bridge;
- park entrance, access road, parking facilities would be replaced; and,
- access to the river would not be affected except during the demolition phase of the old bridge.

Due to the reasons stated above, Proposed Project implementation would not impact service ratios of the BLM Recreation area. The Original Project impacts associated with implementation of the Proposed Project would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

9. Recreation

Original Project Discussion

The 2007 IS/MND indicated that implementation of the Original Project would require the relocation of part of the BLM Recreation area facilities. Additionally, the Original Project would have included the installation of a new boat access ramp on the north side of the Sacramento River, just east of the new bridge. The 2007 IS/MND concluded that the Original Project would have a less than significant impact on existing recreation.

Proposed Project Discussion

The location of the Proposed Project has shifted and includes more land in the BLM Recreation area that would be occupied by the new bridge and realigned approach and departure of Jellys Ferry Road. As stated above, the Proposed Project would require the reconfiguration of the access and internal circulation of the BLM Recreation area. This reconfiguration would be minor and would not result in substantial deterioration of the recreational facility. Implementation of the Proposed Project would not significantly impact the values of activities, features, and attributes at this recreational area because of the reasons listed above in Section 8 Public Services. Impacts would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

10. Transportation/Traffic

Original Project Description

Transportation and traffic impacts were analyzed in the 2007 IS/MND for the Original Project. During construction of the Original Project the existing Jellys Ferry Road Bridge would remain intact and additional contractor vehicles would use Jellys Ferry Road. Construction would occur during non-peak hours and only one lane of travel would be closed at one time; thereby, allowing controlled through access. Construction equipment would be parked away from the existing right-of-way. After completion of the Original Project, the new bridge would be able to accommodate more traffic in

comparison to the existing bridge. The 2007 IS/MND indicated that the Original Project would not increase the level of service (LOS) on local roadways during construction and operation.

The Original Project included the design of a 1,150-foot-long curve radius in Jellys Ferry Road as it approaches the northern bank of the Sacramento River. The roadway would have posted a reduced speed sign to ensure that approaching vehicles navigate the turn safely. During construction of the Original Project bridge, demolition/installation work would occur within the Sacramento River channel and boaters may be exposed to such activities. According to the 2007 IS/MND implementation of Standard Specifications would ensure that Original Project implementation would not increase hazards.

The 2007 IS/MND indicated that during construction of the Original Project Jellys Ferry Road bridge would remain open to traffic. Emergency access would be maintained to the north and south of the Sacramento River in the Original Project area.

Overall, the 2007 IS/MND indicated that implementation of the Original Project would have a less than significant impact on transportation and traffic. No mitigation measures were identified to be implemented.

Proposed Project Description

The Proposed Project is located in a rural area of Tehama County along Jellys Ferry Road at the crossing point of the Sacramento River. The Proposed Project differs slightly from the Original Project in that the boundary is larger and would include a second bridge to reduce overtopping of Jellys Ferry Road (north of the Sacramento River) and a shifted alignment. According to the *Tehama County General Plan Update 2009 to 2029 Draft Environmental Impact Report* Jellys Ferry Road north of Bend Ferry Road has an existing average daily trip volume of 350 vehicles and is operating at LOS A conditions.

Similar to the Original Project, the Proposed Project would include replacement of a functionally obsolete bridge with a new modern bridge, roadway approach improvements along Jellys Ferry Road north and south of the Sacramento River crossing, and a new Overflow Bridge No. 2 north of the Sacramento River to reduce overtopping of water on Jellys Ferry Road. The Proposed Project would be compliant with all applicable circulation and transportation plans administered by Caltrans and Tehama County and would not result in any conflicts with such plans.

During construction of the Proposed Project the existing bridge over the Sacramento River would be open and functional. Construction of the new bridge would occur downstream and once completed, traffic would be rerouted onto the new bridge. Once the new bridge is functional, the existing bridge would be closed to traffic and dismantled (demolished). North of the Sacramento River, Jellys Ferry Road would continue to be opened to through traffic as the Overflow No. 2 Bridge is developed just to the east of the existing roadway. Once Overflow No. 2 Bridge is completed, the existing adjacent portion of Jellys Ferry Road would be closed and traffic would be rerouted onto the newly developed Overflow No. 2 Bride. During construction some delays may occur but the overall LOS A rating would remain intact along Jellys Ferry Road in the Proposed Project area. Once operational the Proposed Project would not generate an increase in the volume of vehicles using Jellys Ferry Road

and therefore would not degrade LOS ratings along the roadway. Impacts would be less than significant.

The Proposed Project would not be located near an airport and would not be designed with tall features that could result in changes to local air traffic patterns. No impacts would occur.

Compared to the Original Project, the Proposed Project would not include a 1,150-foot-long curved Jellys Ferry Road approach on the north side of the Sacramento River. The Proposed Project would be aligned in a straighter approach and thus would not increase driving hazards due to a design feature. Similar to the Original Project, the Proposed Project would require bridge demolition and installation within the Sacramento River channel. Boaters using this portion of the Sacramento River may be exposed to delays in travel due to Proposed Project construction. The construction contractor of the Proposed Project would implement BMPs (e.g., placing signs in the Sacramento River channel warning boaters of temporary closures to the channel or putting up floating buoys around construction areas in the channel so boaters do not enter into dangerous areas) to reduce hazards to boaters on the Sacramento River during Proposed Project construction. With implementation of BMPs impacts would be less than significant.

As described above, circulation along Jellys Ferry Road over the Sacramento River would be maintained during Proposed Project construction. Emergency access to the area north and south of the Sacramento River would still be available to emergency responders. Impacts would be less than significant, as adequate emergency access would be provided during construction and operation of the Proposed Project.

The Proposed Project would include a shoulder the length of the corridor that would support placement of a Class II bicycle lanes. The bicycle lane on Jellys Ferry Road would be consistent with Class II Bicycle Lane design standards as presented in the *Tehama County Bikeways Plan (2008)*.

Similar to the Original Project, implementation of the Proposed Project would result in less than significant impacts to local transportation and traffic. No mitigation measures would be required.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

11. Utilities and Service Systems

Original Project Description

The 2007 IS/MND indicated that the Original Project had the potential to reveal underground utilities in the area during construction activities. The construction contractor would have been required to identify any underground existing utilities on the site. If avoidance of such utilities was not possible then right-of-way planning required that representatives from the utility line and a representative from Tehama County's Public Works Department would meet on the site and prepare a site-specific utility line relocation plan to the satisfaction of the director of the Tehama County Public Works Department. The 2007 IS/MND determined that there would be a less than significant impact on utilities and service systems. As such, no mitigation measures were recommended for the Original Project to reduce impacts to utilities and service systems.

Proposed Project Discussion

The Proposed Project, compared to the Original Project, would be shifted and Jellys Ferry Road would be realigned. Additionally, the Proposed Project is larger in size and would include new components that the previous Original Project did not have.

The County and/or its contractor would be required to prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to be compliant with the State Water Resources Control Board's (SWRCB) requirements for a General Construction Activity Storm Water Permit as a Condition of Approval as discussed above in Section III.A.6 Hydrology and Water Quality. Approval and implementation of the SWPPP and suggested BMPs would ensure that the Proposed Project would not exceed wastewater treatment requirements of the Central Valley Regional Water Quality Control Board. Impacts would be less than significant.

Components of the Proposed Project include demolition of a functionally obsolete bridge, development of a new bridge, approach roadway improvements along Jellys Ferry Road north and south of the new bridge, and development of the Overflow No. 2 Bridge. The Proposed Project would not generate wastewater nor would it require the use of substantial amounts of water to the effect where construction of a new water or wastewater treatment facility or expansion of existing facilities would be required. No impacts would occur with regard to this issue.

The design of the Proposed Project would incorporate new storm water drainage features. Storm water run-off from Jellys Ferry Road south of the proposed Jellys Ferry Road Bridge would be collected in newly developed roadside ditches. The ditches would convey the run-off south and discharge into an existing ephemeral drainage system. Storm water run-off from the proposed Jellys Ferry Road Bridge would be collected in deck drains and conveyed to a new drainage system on the north side of the Sacramento River. This new drainage system would consist of a series of ditches along the toe of the roadway embankment which would eventually convey the storm water run-off from the bridge and the north approach roadway, into either the overflow channel on the west side of the north approach, or through the BLM Recreation area where it would eventually empty into the Sacramento River downstream of the Sacramento River Bridge. The drainage system would be designed to discharge water to the overflow channel or Sacramento River in a manner consistent with the pre-project conditions. North of the Sacramento River Bridge, along the south approach of the proposed Overflow No. 2 Bridge, storm water run-off from Jellys Ferry Road would be collected in ditches along the toe of the roadway embankment on either side of the road and would be conveyed north to discharge into the Overflow No. 2 channel. Storm water run-off from the north half of the bridge would be routed to the drainage system at the north abutment while run-off from the south half of the bridge would be routed to the drainage system at the south abutment. North of the Overflow No. 2 Bridge, stormwater runoff from Jellys Ferry Road would be collected in ditches at the toe of the road embankment and would be conveyed south to eventually discharge into the Overflow No. 2 Channel. Vegetative swales would be used as a BMP in the new stormwater run-off drainage design as part of the drainage system to ensure that stormwater runoff requirements of Tehama County and Central Valley Regional Water Quality Control Board are achieved by the Proposed Project. The new stormwater run-off drainage facilities associated with the Proposed Project design would be developed in compliance with Tehama County Public Works, Caltrans and Central Valley Regional Water Quality Control Board standards. These new stormwater run-off drainage facilities would be

beneficial to the area and their construction would not cause significant environmental impacts. Impacts would be less than significant.

Construction activities of the Proposed Project would require the use of water to suppress dust. The amount of water that would be required is minimal and would be brought to and stored in water trucks at the Proposed Project site for the duration of construction activities. Water supplies in the area would be sufficient to support water use for the Proposed Project and new and expanded entitlements would not be required. Impacts would be less than significant.

The Proposed Project is a bridge replacement and roadway approach improvement project and would not generate wastewater. The wastewater treatment provider in the area would not be affected by Proposed Project implementation. No impacts would occur.

Debris would be generated during construction of the Proposed Project. The nearest landfill to the Proposed Project is the Tehama County/Red Bluff Sanitary Landfill, 2.5 miles northwest of Red Bluff. This facility accepts demolition and construction waste and a maximum of 600 tons of solid waste per day. The facility has a maximum permitted capacity of 5,097,000 cubic yards and has a remaining capacity (as of December 31, 2008) of 2,147,557 cubic yards (operating at 42.1 percent of capacity). This facility would be able to accommodate the construction/demolition debris generated by the Proposed Project during the construction period. The Proposed Project would not generate solid waste once operational. Impacts would be less than significant.

It should be noted that utility services currently exist within the Proposed Project site. Pacific Gas and Electric (PG&E), Charter Cable TV, and AT&T have facilities in the area which could be impacted by Proposed Project implementation. The PG&E facilities consist of three 12-KV overhead lines on joint use utility poles that parallel the east side of Jellys Ferry Road south of the Sacramento River. The PG&E overhead lines travel 900 feet east of the south end of the existing bridge and then cross the Sacramento River. After crossing to the north side of the river, the lines encroach onto BLM land and parallel the east side of the existing road.

AT&T's facilities consist of overhead lines generally located with the PG&E overhead lines. The AT&T overhead lines cross the Sacramento River adjacent to the existing bridge. Once on the north side of the Sacramento River, the lines parallel Jellys Ferry Road until they run underground and attach to a carrier system and pair gain device. After the carrier system, the AT&T facilities remain underground and continue north on both sides of the road. The existing AT&T facilities adjacent to the Sacramento River would be relocated into conduits on the new bridge and would be buried adjacent to the new Jellys Ferry Road.

Charter Cable TV has overhead fiber cable collocated with the PG&E overhead lines. The cable line parallels the existing road and crosses the river with the PG&E overhead facilities. Once across the river the cable parallels Jellys Ferry Road on the east until it is undergrounded. The underground cable then continues on the east side of the road beyond the Proposed Project limits. The existing Charter Cable TV facilities on the north side of the river would be relocated in buried conduits adjacent to the proposed road. Representatives from each of these utility companies would be present during Proposed Project construction to ensure that these facilities are relocated properly. Impacts would be less than significant.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

12. Mandatory Findings of Significance

Original Project Discussion

The 2007 IS/MND indicated that Original Project implementation had the potential to impact biological and cultural resources. Mitigation measures to reduce impacts to biological and cultural resources were approved with adoption of the 2007 IS/MND and therefore these mitigation measures reduce impacts to these resources to a less than significant level.

The 2007 IS/MND indicated that the impacts of the Original Project were individually limited and not cumulatively considerable. No related projects were identified in the vicinity of the Original Project at the time of approval of the 2007 IS/MND. Mitigation measures were provided in the 2007 IS/MND that would reduce impacts to resources on an individual and cumulative basis that may occur in the area with the development of future related projects. The Original Project would not have contributed to cumulative impacts in the area.

Impacts to human beings were discussed throughout the approved 2007 IS/MND and mitigation measures were identified that would reduce such impacts. The Original Project would have had a less than significant impact on human beings.

Proposed Project Discussion

The technical reports associated with biological and cultural resources have been updated to evaluate the potential impacts associated with Proposed Project implementation. Mitigation measures have been identified and would be implemented as part of the Proposed Project to reduce potential impacts to biological and cultural resources. The potential impacts to biological and cultural resources and mitigation measures to be implemented by the Proposed Project have been discussed throughout this Addendum. With implementation of the suggested mitigation measures, impacts to biological and cultural resources due to Proposed Project development would be reduced to a less than significant level.

Related projects (recently past projects, current projects, or probable future projects) have not been identified in the area of the Proposed Project. Similar to the Original Project, the Proposed Project would be individually limited and not cumulatively considerable because an existing bridge would be replaced by a new bridge and approach work on Jellys Ferry Road would occur. Mitigation measures have been provided for the Proposed Project as discussed through this Addendum that would reduce impacts to resources to a less than significant level. These mitigation measures could also be implemented to reduce any contributions to cumulative impacts that the Proposed Project may have in combination with future developments in the area. The Proposed Project, with implementation of the suggested mitigation measures in this Addendum, would not contribute to cumulative impacts.

The Proposed Project has been analyzed to determine if impacts would occur to human beings. Any impacts to human beings due to Proposed Project implementation have been identified and mitigation

measures would be implemented. Implementation of such mitigation measures would reduce Proposed Project impacts to human beings to a less than significant level.

No new or substantially more severe significant impacts would occur and no additional mitigation measures would be required.

C. MITIGATION MEASURES

The 2007 IS/MND identified mitigation measures that would reduce or eliminate potential environmental effects of the Original Project. Most of the mitigation measures adopted as part of the Original Project would also apply to the Proposed Project, and are indicated as such below (with applicable modifications to reflect timing of surveys or required regulatory review). Mitigation measures for those topics determined to have no change with the proposed Project would remain the same and are noted as such below. Those mitigation measures recommended for the Original Project that are no longer applicable have been replaced by mitigation measures that would be appropriate for the proposed Project (these are indicated as new mitigation measures in paragraphs preceding the new mitigation measures). Finally, the mitigation measures that were presented in the 2007 IS/MND and were updated for the Proposed Project are presented below and changes are shown as underlined text.

1. Aesthetics

The 2007 IS/MND determined that impacts would be less than significant regarding aesthetics and did not require the implementation of mitigation measures. Implementation of the Proposed Project could temporarily impact the visual character and quality of the area during construction activities; and therefore, the following mitigation measures would be implemented:

AES-1: The construction contractor shall construct excavation slopes for access roads on the river banks as steep as possible to minimize tree and riparian vegetation removal.

AES-2: During construction, the construction contractor shall use excavation methods along the length of the Proposed Project that would not expose the roots of remaining trees adjacent to the temporary and permanent impacts areas. These excavation methods would ensure that trees are not damaged and have to be removed during the construction period.

AES-3: During construction, if rock outcroppings are discovered, the construction contractor shall incorporate methods to preserve and retain such outcroppings to ensure that they are not damaged by construction activities.

AES-4: The construction contractor, prior to the completion of construction, shall ensure that recontouring of landforms has been completed on-site where grading and/or excavation has occurred.

AES-5: Prior to the commencement of construction activities, a Revegetation Plan shall be prepared by the construction contractor and submitted for approval to Caltrans and Tehama County. The Revegetation Plan shall include procedures to replace the vegetation removed during construction and to revegetate all construction staging areas. The Plan shall also outline procedures on replacing native tree species that are

removed during construction that have a diameter at breast height (dbh) of six inches or larger on a 3:1 replacement ratio. The Revegetation Plan shall establish erosion control seed species, origin and application strategy in consultation with Caltrans landscape Architects, Caltrans biologists, Tehama County and BLM resource specialists.

AES-6: The construction contractor shall save, stockpile and reapply duff and topsoil on disturbed slopes to reduce (hide or camouflage) newly constructed areas and to promote the growth and return of natural vegetation to such disturbed areas.

AES-7: The construction contractor shall apply site-specific erosion techniques to all disturbed slopes in accordance with erosion standards of Tehama County and Caltrans.

2. Agriculture and Forestry Resources

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

3. Air Quality

The 2007 IS/MND indicated that implementation of "Basic Control Measures" would reduce construction pollutant emissions. Since approval of the 2007 IS/MND, the TCAPCD has approved and recommends construction mitigation measures that should be implemented by projects in Tehama County to reduce construction pollutant emissions. The Proposed Project would implement the following mitigation measures as necessary (per TCAPCD construction mitigation recommendations) to reduce the amount of emissions generated during construction:

AQ-1: The construction contractor shall ensure that all construction equipment used on-site is maintained in proper tune and working order according to the manufacturer's specifications.

AQ-2: The construction contractor shall (to the maximum extent feasible) use diesel construction equipment meeting the CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.

AQ-3: The construction contractor shall ensure that all construction equipment used on site during construction activities are registered in the CARB DOORS program and that the equipment meets all applicable standards for replacement and/or retrofit.

AQ-4: The construction contractor shall ensure that all portable construction equipment, rated over 50 brake horse power, is registered in the Portable Equipment Registration Program prior to commencement of construction activities and use of such equipment.

AQ-5: When feasible, the construction contractor shall employ the use of electrical construction equipment rather than diesel- or gasoline-powered equipment.

AQ-6: If the use of electrical construction equipment is not feasible or available, the construction contractor shall substitute (if feasible) gasoline-powered equipment for diesel-powered equipment.

AQ-7: If feasible the construction contractor shall use alternatively fueled construction equipment on site. Alternative fuels that may be used include: compressed natural gas, liquefied natural gas, propane, or biodiesel.

AQ-8: If feasible, the construction contractor shall use construction equipment that has pre-chamber diesel engines.

The following mitigation measures shall be implemented to prevent and control dust emissions during Proposed Project construction activity:

AQ-9: Water shall be applied by means of truck(s), hoses and/or sprinklers as needed prior to any land clearing or earth movement activities to minimize dust emissions. Water shall be applied to disturbed areas a minimum of two times per day or more as necessary.

AQ-10: Haul vehicles transporting soil into or out of the Project site shall be covered. On-site vehicles shall be limited to a speed which minimizes dust emissions on unpaved roads.

AQ-11: Prior to commencement of construction activities, a publicly visible sign with the telephone number and name of the person (construction contractor) to contact regarding dust complaints shall be posted at the northern and southern ends of the Project site. The construction contractor shall respond and take corrective action within 24 hours of being contacted. The telephone number of the TCAPCD contact shall also be visible on the posted sign to ensure compliance with TCAPCD District Rule 4:1 and 4:24.

AQ-12: All visibly dry, disturbed soil surface areas of operation shall be treated with a dust palliative agent and/or watered to minimize dust emissions.

AQ-13: Existing roads and streets adjacent to the Proposed Project site shall be cleaned at least once per day unless conditions warrant a greater frequency.

AQ-14: Haul roads shall be sprayed down at the end of the work shift on a daily basis to form a thin crust. This application of water shall be in addition to the minimum rate of application.

AQ-15: Construction workers shall park in designated construction staging areas developed for the Proposed Project to help reduce dust emissions.

AQ-16: Soil pile surfaces on the construction site shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material shall be used to cover the soil piles to further reduce dust emissions.

4. Biological Resources

The 2007 IS/MND presented **Mitigation Measures BIO-1** through **BIO-12** to be implemented to reduce significant impacts to special status plants, special status fish, special status amphibians and reptiles, special status birds, special status mammals, sensitive natural communities, trees, upland vegetation, and waters of the U.S. Since approval of the 2007 IS/MND a Natural Environment Study was completed for the Proposed Project that included updated field surveys and wetland delineations evaluating the new project design characteristics and the expansion of the Project to an area that had not been previously surveyed. **Mitigation Measures BIO-1** through **BIO-46** presented below replace the mitigation measures that were originally presented in the 2007 IS/MND based on new survey data and updated biological survey results from surveys conducted between January 2008 and December 2013.

Valley Oak/Grassland Association

BIO-1: Highly visible ESA fencing shall be placed along the limits of work to protect adjacent Valley oak/grassland association. Fencing shall be maintained in good condition for the duration of construction activities.

BIO-2: Staging area, access routes, and construction areas shall be located outside of Valley oak/grassland areas to the maximum extent.

BIO-3: Following completion of the new bridge all temporary impact and/or otherwise disturbed areas shall be restored to preconstruction contours (if necessary) and revegetated with a native seed mix. A proposed seed mix is provided below in **Table B: Native Seed Mix**. Invasive exotic plants shall be controlled to the maximum extent.

Table B: Native Seed Mix

Scientific Name	Common Name	Rate (Lbs./Acre)	Minimum Percent Germination
Artemisia douglasiana	Mugwort	2.0	50
Bromus carinatus carinatus	California brome	5.0	85
Elymus trachycaulus	Slender wheatgrass	2.0	60
Elymus X triticum	Regreen	10.0	80
Eschscholzia californica	California poppy	2.0	70
Hordeum brachyantherum	California barley	2.0	80
Lupinus bicolor	Bicolored lupine	4.0	80

BIO-4: The removal of riparian vegetation within the Valley oak/grassland association and permanent impacts to wetlands shall be accomplished using one of the following methods, or by using a combination of methods, contingent upon approval by the CDFW, ACOE, and RWQCB:

- Preservation, creation, and/or restoration of the impacted resources at a minimum ratio of 3:1. This work shall occur solely within the Project impact area;
- Purchase of credits at an approved mitigation bank at a minimum 1:1 mitigation ratio; and,
- All mitigation lands shall be protected in perpetuity through recordation of a conservation easement or equivalent method.

Bats

BIO-5: Construction activities that could affect roosting bats, as determined by a qualified biologist, shall be conducted during daylight hours to avoid disturbing bats potentially utilizing the bridge structure or trees at night.

BIO-6: Demolition of the bridge shall occur only after any bats roosting in the crevice and other day roost habitat have been humanely evicted:

- To avoid impacts to non-volant pups or torpid adult bats, eviction must occur between March 1st through April 15th, and August 31st through October 15th;
- A qualified bat biologist possessing a Memorandum of Understanding with the California Department of Fish and Wildlife and experience with humane bat eviction and exclusion shall either supervise the installation of, or install one-way exits at the roost cavity openings. These shall be installed at least 14 days prior to demolition and shall remain in place 10 to 14 days, followed by a survey to determine effectiveness. If all bats have been safely evicted, the crevices shall be sealed with suitable materials (expanding foam, backer rod, mesh, etc.) sufficient to remain until demolition;
- Demolition shall take place any time after bats have been successfully humanely evicted; however, if demolition will not occur until after 180 days after eviction, a biologist shall conduct an inspection of the blockage materials to ensure they have remained effective. If materials have not remained in the roost crevices, surveys and/or eviction may need to be repeated.

BIO-7: In-kind replacement habitat (e.g., creative habitat) consistent with the amount of habitat with evidence of use by bat colonies shall be provided on the new bridge in consultation with an experience bat biologist possessing a Memorandum of Understanding with the California Department of Fish and Wildlife and experience designing bat habitat.

BIO-8: Demolition of the old bridge shall not occur until after the new bridge is completed and replacement bat habitat has been installed.

Tri Colored Black birds

BIO-9: If construction begins during the nesting season (February 1st through August 31st), a survey for nesting tricolored blackbirds shall be conducted in the BSA and within a 100-foot radius by a qualified biologist. The survey shall be conducted a maximum of 14 days prior to the commencement of construction. The survey area may be decreased due to property access constraints. If no active nests are found, then no further action is warranted.

BIO-10: If nesting tricolored blackbirds are found within 100 feet of the BSA during the survey, a setback of 100 feet from nesting areas shall be established and marked with ESA fencing. ESA fencing shall be maintained during the nesting season until construction is complete or the young have fledged, as determined by a qualified biologist.

BIO-11: Alternatively, the setback (if required) may be reduced if a qualified biologist is present to monitor the nest(s) when construction begins. If the biologist determines nesting is not affected by construction activities with the reduced setback, work can proceed. If it is determined that construction activities are adversely affecting the nesting birds with the reduce setback, all construction within 100 feet of a nest shall be halted until the biologist can establish an appropriate setback.

BIO-12: Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training shall instruct workers to recognize tricolored blackbirds and their habitat(s).

BIO-13: All area temporarily disturbed during Project construction activities shall be restored at Project completion using a native seed mix as shown above in Table B.

Swainson's Hawk

BIO-14: If work begins between February 1st and August 31st, an early season preconstruction survey for nesting Swainson's hawks shall be conducted in the BSA and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist when tree foliage is relatively sparse and nests are easy to identify. A second preconstruction survey for nesting Swainson's hawks shall be conducted in the BSA and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist no more than 14 days prior to initiation of earthmoving activities.

BIO-15: If nesting Swainson's hawks are found within the survey area, a qualified biologist shall evaluate the potential for the Project to disturb nesting activities. California Department of Fish and Wildlife (CDFW) shall be contacted to review the evaluation and determine if the Project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures such as buffers. Disturbance of active nest shall be avoided until it is determined by a

qualified biologist that nesting is complete and the young have fledged. If work is allowed to proceed, at a minimum, a qualified biologist shall be onsite at the commencement of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the Project is adversely affecting nesting activities.

BIO-16: Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training instructs workers to recognize Swainson's hawks and their habitat(s).

BIO-17: Highly visible ESA fencing shall be placed along the limits of work to prevent unnecessary encroachment into adjacent areas. Fencing shall be maintained in good condition for the duration of construction activities.

Osprey

BIO-18: If possible, all trees that will be impacted by Project construction shall be removed during the non-nesting season (between September 16th through February 1st), to avoid take of a nest or bird. If this is not possible, a survey for nesting osprey shall be conducted in the BSA and within a 500-foot radius by a qualified biologist. The survey shall be conducted a maximum of 14 days prior to the start of construction. The survey area may be decreased due to property access constraints, etc.

BIO-19: If nesting osprey are found within 500 feet of the BSA, a qualified biologist shall evaluate the potential for the Proposed Project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the BSA, and line of sight between the nest and the BSA.

BIO-20: CDFW shall be contacted to review the evaluation and determine if the Project construction can proceed without adversely affecting nesting activities.

BIO-21: If work is allowed to proceed, a qualified biologist shall be on-site weekly during construction activities that occur in the breeding season to monitor nesting activity. The biologist shall have the authority to stop work it if it determined that the Project is adversely affecting nesting activity.

Pacific Pond Turtle

BIO-22: Prior to the start of construction activities in the Sacramento River, the reach of the river within the BSA shall be surveyed by a qualified biologist for the presence of Pacific pond turtles. If Pacific pond turtles are observed in the BSA, they shall, in coordination with CDFW, be relocated outside of the work area by a qualified biologist.

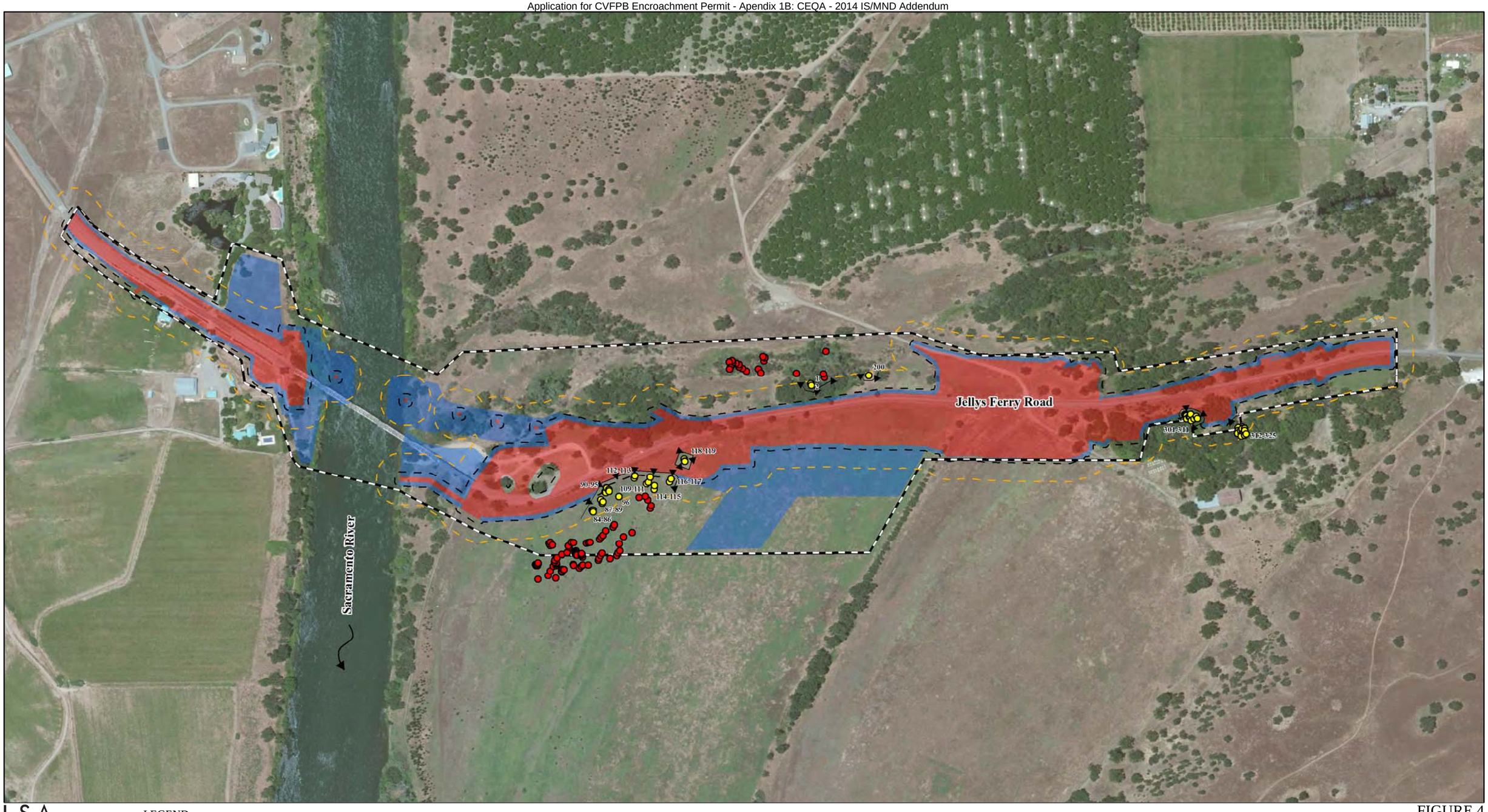
BIO-23: Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training instructs workers to recognize Pacific pond turtles and their habitat(s).

BIO-24: Areas temporarily disturbed during construction shall be revegetated with the proposed seed mix specified above in Table B.

Valley Elderberry Longhorn Beetle

BIO-25: Prior to initiation of construction, the limits of all construction, access roads, staging areas, and any other ground disturbing activities, shall be staked. The staked areas shall be inspected by a qualified biologist. Based on this inspection, additional refinements to construction areas shall be performed to ensure a minimum 20-foot setback from the dripline of all elderberry plants.

BIO-26: Once the final limits of construction are set, highly visible ESA fencing shall be installed at the 20-foot setback around the perimeter of each elderberry plant or plant group (for example in the vicinity of the BLM access road which threads through the planted elderberry area). ESA fencing shall consist of highly visible construction fencing or equivalent, and shall be maintained until construction is complete. A qualified biologist shall be present during installation of fencing. The approximate location of ESA fencing is shown in Figure 4: Elderberry Locations and ESA Fencing.



LSA

LEGEND

- Biological Study Area (75.36 ac)
- Permanent Impact Area
- Temporary Impact Area
- 20-Foot Buffer
- 100-Foot Buffer
- ESA Fencing
- Elderberry Shrubs Between 20 and 100 Feet - 52 Count
- Elderberry Shrubs Beyond 100 Feet - 86 Count

0 200 400
FEET

SOURCE: Basemap - Microsoft Bing Aerial (2010); Mapping - LSA Associates, Inc. (2013)

I:\Tyl0602\A\IS-MND Addendum\Figure 4.ai (4/30/2014)

FIGURE 4

Jellys Ferry Road
Bridge Replacement Project

Elderberry Locations and ESA Fencing

BIO-27: Signs shall be erected every 50 feet along the edge of the avoidance area with the following information posted: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs shall be clearly readable from a distance of 20 feet and shall be maintained for the duration of construction.

BIO-28: Employee awareness training shall be provided for the contractor to emphasize the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements.

BIO-29: A qualified biologist shall periodically inspect the construction area to assure that the Project is not affecting any elderberry plants.

BIO-30: No insecticides, herbicides, fertilizers, or other chemicals that might harm Valley Elderberry Longhorn Beetle or elderberry plants shall be used within 100 feet of any elderberry plant with stems measuring greater than 1-inch in diameter.

BIO-31: Any damage occurring within the elderberry buffer areas (within 100 feet of the elderberry plants) shall be restored and revegetated with appropriate native species at the completion of construction.

BIO-32: If a minimum 20-foot setback from the dripline of all elderberry plants in the BSA cannot be maintained for all Project activities, USFWS shall be contacted and additional mitigation measures may be required.

Sacramento River Winter-Run Chinook Salmon, Central Valley Spring-Run Chinook Salmon, Southern DPS of North American Green Sturgeon, and Central Valley Steelhead

BIO-33: In-water work shall be limited to the period between May 15th to September 30th during the first construction season, and during the period of late March through mid-September during the second construction season. The spring/summer in-water work window would avoid in-water work during high winter flows and minimize potential adverse effects to water quality. Any work occurring outside of the May 15 to September 30th period would be limited to construction site clean-up, deck work on the new bridge structure, and those activities that can be accomplished outside of the active channel, unless other activities are authorized by CDFW and NMFS based on a determination that due to weather conditions and water levels, salmonids are unlikely present.

BIO-34: Anti-spawning mats shall only be utilized during the first construction season. The mats shall be installed between March 1st and April 15th to avoid effects to winter-run chinook that could utilize the small area of spawning habitat located downstream of the bridge. Installation shall be monitored by a qualified fisheries biologist.

BIO-35: Anti-spawning mats shall be removed between October 15th and October 30th (of the first construction season), which is after the spawning period for the winter-run salmon. Removal shall be monitored by a qualified fisheries biologist.

BIO-36: Anti-spawning mats shall be monitored on a weekly basis, by a qualified fisheries biologist, and maintained in proper functioning condition (i.e., secured to substrate without holes or establishment of spawning gravels on top of the mats). Should the anti-spawning mats not be functioning properly, all percussive construction work shall cease until the mats have been restored to proper functioning condition.

BIO-37: Temporary gravel work pads shall be constructed on either end of the temporary work trestles to minimize the length of the trestles and, therefore, the number of piles required to support the trestles, which would result in less pile driving and associated acoustic impacts.

BIO-38: Gravel used for the temporary work pads shall consist of 1- to 4-inch diameter uncrushed, washed and rounded river rock (aka spawning gravel) and shall meet the Caltrans Gravel Cleanliness Specification No. 85. The stable layer that would need to be placed for the gravel approaches shall consist of the cleanest possible materials (i.e., metal sheets similar to aircraft landing mats). If unclean materials such as dirt need to be used, they shall be enveloped in geotextile fabric over the clean gravel to contain the material, and allow for a more complete and clean gravel removal from the river.

BIO-39: Following completion of construction, the bottom 1 foot of gravel shall be left in the channel to avoid impacts to the natural bed of the river and to provide a source of suitable spawning gravel to be dispersed by natural flows in the river.

BIO-40: If the temporary CIDH casing is installed in free standing water, water trapped inside the casing shall be inspected by a qualified fishery biologist, prior to the next step in CIDH pile construction immediately following embedment of the temporary casing in the stream bed to ensure that no salmonids or sturgeon have been trapped within the casing (3/32-inch wire mesh would be installed on the bottom of the CIDH casing to prevent entrapment of salmonids or sturgeon inside the casing). Any trapped salmonids or sturgeon shall be removed and returned to the river. The fishery biologist shall note the number and condition of individuals trapped, the number of individuals relocated, and the date and time of collection and relocation. One or more of the following NMFS-approved capture techniques shall be used: dip net, seine, throw net, minnow trap, or hand. Electro fishing may be used if NMFS has reviewed the biologist's qualifications and provided written approval. The fishery biologist shall be empowered to halt construction activity and to recommend measures for avoiding adverse effects to salmonids and their habitats.

BIO-41: Any water to be removed from the CIDH casings shall be pumped into settling basins on the bank with no return drainage to the river or into trucks for off-site disposal.

BIO-42: Measures consistent with the current Caltrans' Construction BMPs Manual (including the SWPPP and WPCP Manuals) shall be implemented to minimize effects to the winter-run chinook and its critical habitat resulting from erosion, siltation, and other water quality impacts during and after construction.

BIO-43: Adequate fish passage within the Sacramento River at the Project site shall be maintained at all times. Approximately 200 feet of river channel width shall remain open for fish passage (total width of the river is approximately 300 to 350 feet). This would allow the opportunity for fish to move away from active work areas and to have unabated passage to and through the Project area.

BIO-44: During removal of the deck, heavy tarps or an equivalent debris collection device shall be placed under the bridge to minimize the potential for materials or liquids from falling into the Sacramento River.

BIO-45: All construction activities associated with construction of the new bridge and demolition of the existing bridge, including construction of the temporary gravel work pads, temporary trestles, and temporary falsework, shall be conducted during daylight hours. The exception is minor activities associated with detour maintenance/traffic control, which may be conducted during nighttime hours.

BIO-46: Permanent loss of Shaded Riverine Aquatic (SRA) habitat, totaling 2.09 acres, shall be compensated at a 3:1 ratio. Accordingly, 6.27 acres of riparian floodplain forest credits shall be purchased at the Fremont Landing Conservation Bank or other NMFS-approved conservation bank to compensate for the loss of 2.09 acres of SRA resulting from implementation of the project.

5. Cultural Resources

Mitigation Measures CULT-1 through **CULT-4** of the 2007 IS/MND for the Original Project would need to be replaced with new mitigation measures based on the *Historic Property Survey Report for the Jellys Ferry Road over the Sacramento River Bridge Replacement Project* that was completed for the Proposed Project on January 10, 2014. **Mitigation Measure CULT-5** presented below was not identified in the 2007 IS/MND for the Original Project and would also be implemented under the Proposed Project.

CULT-1: Archaeological Sites JFB-1, JFB-2 and CA-TEH-1783 shall be protected through implementation of the Environmentally Sensitive Area (ESA) Action Plan which details the procedures for installation, maintenance, and removal of ESA fences. The fences shall be located a minimum of 20 feet from the recorded boundaries of archaeological sites JFB-1, JFB-2 and CA-TEH-1783. All roadwork associated with implementation of the Proposed Project shall be directed away from these sensitive archaeological sites (JFB-1, JFB-2 and CA-THE-1783).

CULT-2: If deposits of previously undiscovered prehistoric or historic archaeological materials, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics,

wood or similar debris, are discovered during Proposed Project construction activities (including grading, trenching, or other on-site excavations) construction activities within 25 feet of these materials shall be stopped by the construction contractor. A professional archaeologist certified by the Registry of Professional Archaeologists (RPA) shall be retained to evaluate the significance of the find and suggest appropriate identification, collection, and cataloguing procedures of the artifact(s).

CULT-3: If previously undiscovered paleontological resources are uncovered during Proposed Project construction activities (including grading, trenching, or other on-site excavations) construction activities within 25 feet of these materials shall be stopped by the construction contractor. A certified professional archaeologist/paleontologist shall be retained to evaluate the significance of the find and suggest appropriate identification, collection, and cataloguing procedures of the resources.

CULT-4: If human remains are encountered during construction activities on the Proposed Project site, work within 25 feet of the discovery shall be redirected away from the discovery and the Tehama County Coroner notified immediately. At the same time, an archaeologist shall be retained to evaluate the human remains that have been found. The construction contractor shall advise all of the construction crew working in the area of the discovery to not collect or move any human remains and associated materials. If the human remains are determined to be of Native American origin, the Coroner shall notify the Native American Heritage Commission with 24 hours of discovery and identification. The Native American Heritage Commission shall identify a Native American Most Likely Descendent (MLD) to inspect the site and provide direction and recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the evaluation, a report shall be prepared documenting the methods and results, as well as recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be summited to Tehama County and the Northwest Information Center.

CULT-5: The three prehistoric archaeological cultural resources that have been identified (JFB-1, JFB-2 and CA-THE-1783) in the vicinity of and within the Proposed Project site shall be considered eligible for inclusion in the National Register for the purposes of the Proposed Project. Subsurface testing and/or surface collection at these prehistoric archaeological cultural resources shall not be conducted as they have already been identified as an important archaeological resource in the area. The establishment of ESAs as discussed above in **Mitigation Measure CULT-1** shall protect these three prehistoric archaeological resources that have been identified in accordance with Section 106 Programmatic Agreement Stipulation VIII.C.3.

6. Geology/Soils

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

7. Greenhouse Gas Emissions

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

8. Hazards and Hazardous Materials

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

9. Hydrology/Water Quality

The 2007 IS/MND presented **Mitigation Measures WQ-1** and **BIO-2** to be implemented to reduce significant impacts to hydrology and water quality issues. Since approval of the 2007 IS/MND a *Water Quality Assessment* (March 2014) was completed for the Proposed Project that included updated information on the hydrological and water quality conditions in the Project area and the impacts that could potentially occur with Project implementation. Additionally, a *Design Hydraulic Study* was prepared for the Proposed Project in January 2014, providing updated hydrological conditions in the Sacramento River and Overflow Channel where the proposed Project would be located. **Mitigation Measures WQ-1** through **WQ-5** presented below replace the mitigation measures that were originally presented in the 2007 IS/MND based on new hydrological data that was completed in the *Design Hydraulic Study* prepared in January 2014.

WQ-1: Construction Site BMPs shall be prepared and implemented in compliance with the provisions of Caltrans' Statewide NPDES Permit and any subsequent permit as they relate to construction activities for the proposed Project. Such requirements shall include submission of a Notice of Construction (NOC) to the California Regional Water Quality Control Board Central Valley Region (CRWQCB-CVR) at least 30 days prior to the start of construction, preparation, and implementation of a Stormwater Pollution Prevention Plan (SWPPP), and submission of a Notice of Construction Completion.

WQ-2: Design Pollution Prevention and Treatment Control BMPs for the Project shall be incorporated in accordance with the procedures in the Stormwater Quality Handbooks, Project Planning, and Design Guide. The County shall coordinate with CRWQCB-CVR with respect to feasibility, maintenance, and monitoring of Treatment Control BMPs as set forth in Caltrans' Statewide SWMP.

WQ-3: Per standards set forth by the State of California Reclamation Board and FEMA all temporary construction facilities shall be removed from the floodplain during flood seasons.

WQ-4: The Project proponent, during construction and post-construction activities, shall implement the suggested minimization, avoidance, and/or mitigation measures that have been identified in the Natural Environment Study prepared for the proposed Project in April 2014. Such measures to be implemented would ensure that aquatic

habitat disturbed within the Project boundary would be mitigated for and would ensure that surface and groundwater quality in the area is not impacted.

WQ-5: The Project proponent shall implement the following measures to reduce impacts caused by scour due to implementation of the proposed Project:

Minimum Soffit Elevation: The Jellys Ferry Road Bridge over the Sacramento River and the Overflow No. 2 Bridge shall be designed to meet the minimum soffit elevations recommended by Caltrans and FHWA in the location of the proposed Project. The minimum soffit elevation of a bridge over the Sacramento River meeting the recommendations of Caltrans and FHWA is 352.0 feet North American Vertical Datum of 1988 (NAVD-88). This represents the water surface elevation of the Standard Design Flood (50-year flood) plus 3.0 feet of clearance for drift. The minimum soffit elevation of a bridge over the north overflow meeting the recommendations of Caltrans and FHWA is 353.8 feet NAVD-88. All piers of the Overflow No. 2 Bridge shall be designed considering potential scour to an elevation of 331.3 feet NAVD-88.

Pier Scour: Piers 2 and 3 of the new Jellys Ferry Road Bridge over the Sacramento River channel shall be designed considering potential scour to an elevation of 285.1 feet NAVD-88. Piers 4, 5, and 6 of the Jellys Ferry Road Bridge shall be designed considering potential scour to an elevation of 313.8 feet NAVD-88. All piers of the Overflow No. 2 Bridge shall be designed considering potential scour to an elevation of 331.3 feet NAVD-88.

Abutment Scour: Abutment 7 of the new Jellys Ferry Road Bridge over the Sacramento River channel shall be designed considering or protected against a total potential scour to an elevation of 325.0 feet NAVD-88. Both abutments of the Overflow No. 2 Bridge over the north overflow channel shall be designed considering or protected against potential scour to an elevation of 339.0 feet NAVD-88. (Notes regarding estimates of potential scour: Potential scour has been estimated using empirical equations presented in FHWA HEC-18. These equations do not consider geotechnical conditions and therefore assume all substrate is erodible. The potential scour estimates identified in the March 2014 Hydrology Report prepared for the proposed Project may be appropriate if a geotechnical investigation identifies material resistant to erosion at higher elevations.)

Abutment Protection: Abutment protection shall be installed to reduce the potential for damage to abutments from bank erosion and bank migration. Bank protection shall be designed such that the protection does not represent a new encroachment in the floodplain.

10. Land Use/Planning

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

11. Mineral Resources

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

12. Noise

Mitigation Measure NOISE-1 identified in the 2007 IS/MND for the Original Project would need to be updated with new language based on the shift in alignment of the Proposed Project and sensitive receptors that were not originally identified in the 2007 IS/MND. Mitigation Measure NOISE-1 in the 2007 IS/MND for the Original Project is changed to the following:

NOISE-1: During construction activities, the construction contractor shall ensure that all construction equipment operating near the two identified sensitive receptors (located east and west of the southern portion of the Proposed Project site) are in good working order and that adequate muffler systems are used on the equipment to reduce temporary increases in the ambient noise level. Construction equipment shall be located as far from the sensitive receptors as possible but still be able to complete the construction activities. If construction equipment needs to operate near the sensitive receptors they shall do so only when necessary and shall be switched off when that particular piece of equipment is not in use. Construction activities shall comply with appropriate noise-related goals, policies, and objectives as presented in the *Tehama County General Plan Update 2009-2029* as well as Caltrans standards specifications Section 7-1.01I "Sound Control Requirements".

13. Population and Housing

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

14. Public Services

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

15. Recreation

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

16. Transportation/Traffic

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

17. Utilities and Service Systems

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

18. Mandatory Findings of Significance

Mitigation measures would not be required with implementation of the Original Project nor the Proposed Project.

IV. CONCLUSION

On the basis of the evaluation presented in Section III, the changes within the Proposed Project would not trigger any of the conditions listed in Section I.D of this Addendum, requiring preparation of a subsequent or supplemental Initial Study/Mitigated Negative Declaration or Environmental Impact Report. Thus, this Addendum satisfies the requirements of CEQA Guidelines Sections 15162 and 15164. The Proposed Project does not introduce new significant environmental impacts, substantially increase the severity of previously identified significant environmental impacts, or show that mitigation measures or alternatives previously found not to be feasible would in fact be feasible.

Overall, the Proposed Project would result in similar effects to those of the Original Project with similar operations as those that were proposed for the Original Project ,and would generate similar impacts. The Proposed Project would not result in new significant impacts or impacts that would be substantially more severe than those identified in the 2007 IS/MND. The mitigation measures included in the 2007 IS/MND that specifically apply to the Proposed Project would remain applicable, those that should be clarified or revised are noted with an explanation for the rationale as to why, and those that should be removed, include an explanation of why the mitigation measure is no longer needed or applicable.

The analysis and conclusions in the 2007 IS/MND remain current and valid. The proposed revisions to the Project, as described for the Proposed Project, would not cause new or substantially more severe significant impacts than identified in the 2007 IS/MND, and thus no new mitigation measures would be required. No change has occurred with respect to circumstances surrounding the Proposed Project that would cause new or substantially more severe significant environmental impacts than identified in the 2007 IS/MND, and no new information has become available that shows that the Proposed Project would cause significant environmental impacts not already analyzed in the 2007 IS/MND. No further environmental review is required beyond this Addendum to the 2007 IS/MND.

REPORT PREPARERS

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REFERENCES

California Department of Conservation Division of Land Resource Protection, Williamson Act, Website: http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx. Accessed January 2014.

California Department of Forestry and Fire Protection, California Fire Hazard Severity Zone Map Update Project – Tehama County, Website: http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php. Accessed January 2014.

LSA Associates, *Historic Property Survey Report for the Jellys Ferry Road Over the Sacramento River Bridge Replacement Project* and *Archaeological Survey Report for the Jellys Ferry Road Over the Sacramento River Bridge Replacement Project*, January 10, 2014.

LSA Associates, *Natural Environment Study Jellys Ferry Road Over the Sacramento River Bridge Replacement*, January 2014.

PMC, *Tehama County General Plan Update 2009-2029,* March 2009.

PMC, *Tehama County 2008-2028 General Plan Draft Environmental Impact Report*, September 2008.

Tehama County Air Pollution Control District, *Planning and Permitting Air Quality Handbook*, December 2009.

Tehama County Transportation Commission, *Tehama County Bikeways Plan*, Updated October 2008, November, 2008 and June 2013.

APPENDIX A
NATURAL ENVIRONMENT STUDY

APPENDIX B
HYDROLOGY REPORT

ROAD COMMISSIONER
SURVEYOR
ENGINEER
PUBLIC TRANSIT
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
SANITATION DISTRICT NO. 1

(530) 385-1462 FAX (530) 385-1293 9380 San Benito Ave, Gerber 96035

MEMO

To: 301691 Jellys Ferry Road @ Sacramento River Bridge Environmental File

From: Kevin Rosser, Senior Civil Engineer

Subject: Jellys Ferry Road @ Sacramento River Bridge Mitigation Monitoring and Reporting Program

Date: 1/16/19

This memo confirms the Jellys Ferry Road @ Sacramento River Bridge Mitigation Monitoring and Reporting Program prepared by LSA, dated September 2018 contains, and is consistent with, the mitigation requirements of the Mitigated Negative Declaration addended and adopted by the Tehama County Board of Supervisors on 6/24/2014.

MITIGATION MONITORING AND REPORTING PROGRAM

JELLY'S FERRY ROAD BRIDGE REPLACEMENT PROJECT

This Mitigation and Monitoring Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) and the Addendum IS/MND prepared for the proposed Jelly's Ferry Road Bridge Replacement Project (proposed Project). The purpose of the MMRP is to ensure the implementation of mitigation measures identified as part of the environmental review for the project. The MMRP includes the following information:

- A list of mitigation measures;
- The party responsible for implementing the mitigation measures;
- The timing for implementation of the mitigation measure;
- The agency/county department responsible for monitoring the implementation; and
- The monitoring action and frequency.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
AESTHETICS							
1	**AES-1**	The construction contractor shall construct excavation slopes for access roads on the river banks as steep as possible to minimize tree and riparian vegetation removal.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Excavation slopes constructed as steep as possible to minimize vegetation removal.
2	**AES-2**	During construction, the construction contractor shall use excavation methods along the length of the proposed Project that would not expose the roots of remaining trees adjacent to the temporary and permanent impact areas. These excavation methods would ensure that trees are not damaged and have to be removed during the construction period.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Excavation methods used that do not expose roots of remaining trees.
3	**AES-3**	During construction, if rock outcroppings are discovered, the construction contractor shall incorporate methods to preserve and retain such outcroppings to ensure that they are not damaged by construction activities.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Incorporation of methods to preserve rock outcroppings.
4	**AES-4**	The construction contractor, prior to the completion of construction, shall ensure that recontouring of landforms has been completed on-site where grading and/or excavation has occurred.	During Construction	Construction Contractor	County of Tehama	During and following construction	Recontour landforms where grading and/or excavation occurred.
5	**AES-5**	Prior to the commencement of construction activities, a Revegetation Plan shall be prepared by the construction contractor and submitted for approval to Caltrans and Tehama County. The Revegetation Plan shall include procedures to replace the vegetation removed during construction and to revegetate all construction staging areas. The Plan shall also outline procedures on replacing native tree species that are removed during construction that have a diameter at breast height (dbh) of six inches or larger on a 3:1 replacement ratio. The Revegetation Plan shall establish erosion control seed species, origin and application strategy in consultation with Caltrans landscape Architects, Caltrans biologists, Tehama County and BLM resource specialists.	During Construction	Construction Contractor	County of Tehama / Caltrans	Prior to construction	Revegetation plan prepared and submitted for approval to Caltrans and Tehama County.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
6	**AES-6**	The construction contractor shall save, stockpile and reapply duff and topsoil on disturbed slopes to reduce (hide or camouflage) newly constructed areas and to promote the growth and return of natural vegetation to such disturbed areas.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Duff and topsoil is saved, stockpiled, and reapplied.
7	**AES-7**	The construction contractor shall apply site-specific erosion techniques to all disturbed slopes in accordance with erosion standards of Tehama County and Caltrans.	During and Post Construction	Construction Contractor	County of Tehama / Caltrans	Consistently throughout construction	Site-specific erosion techniques are applied to all disturbed slopes.
AIR QUALITY – Construction Pollutant Emissions							
8	**AQ-1**	The construction contractor shall ensure that all construction equipment used on-site is maintained in proper tune and working order according to the manufacturer's specifications.	Prior to and During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	All construction equipment is maintained in proper tune and working order.
9	**AQ-2**	The construction contractor shall (to the maximum extent feasible) use diesel construction equipment meeting the CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.	Prior to and During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Diesel construction equipment meets the CARB's 1996 or newer certification standard.
10	**AQ-3**	The construction contractor shall ensure that all construction equipment used on site during construction activities are registered in the CARB DOORS program and that the equipment meets all applicable standards for replacement and/or retrofit.	Prior to and During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Construction equipment used is registered in the CARB DOORS program and meets applicable standards.
11	**AQ-4**	The construction contractor shall ensure that all portable construction equipment, rated over 50 brake horse power, is registered in the Portable Equipment Registration Program prior to commencement of construction activities and use of such equipment.	Prior to construction	Construction Contractor	County of Tehama	Prior to and during construction	All portable construction equipment, rated over 50 brake horse power is registered in the Portable Equipment Registration Program.
12	**AQ-5**	When feasible, the construction contractor shall employ the use of electrical construction equipment rather than diesel- or gasoline-powered equipment.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Electrical construction equipment is used when feasible.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
13	**AQ-6**	If the use of electrical construction equipment is not feasible or available, the construction contractor shall substitute (if feasible) gasoline-powered equipment for diesel-powered equipment.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Diesel-powered equipment is used before gasoline-powered equipment when electrical equipment is not feasible.
14	**AQ-7**	If feasible the construction contractor shall use alternatively fueled construction equipment on site. Alternative fuels that may be used include: compressed natural gas, liquefied natural gas, propane, or biodiesel.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Alternative fueled construction equipment is used when feasible.
15	**AQ-8**	If feasible, the construction contractor shall use construction equipment that has pre-chamber diesel engines.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Construction equipment with pre-chamber diesel engines is used.
AIR QUALITY –Dust Control							
16	**AQ-9**	Water shall be applied by means of truck(s), hoses and/or sprinklers as needed prior to any land clearing or earth movement activities to minimize dust emissions. Water shall be applied to disturbed areas a minimum of two times per day or more as necessary.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Water is applied to disturbed areas a minimum of two times per day or more as necessary.
17	**AQ-10**	Haul vehicles transporting soil into or out of the Project site shall be covered. On-site vehicles shall be limited to a speed which minimizes dust emissions on unpaved roads.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	On-site vehicles are limited to a speed which minimizes dust emissions and vehicles transporting soil are covered.
18	**AQ-11**	Prior to commencement of construction activities, a publicly visible sign with the telephone number and name of the person (construction contractor) to contact regarding dust complaints shall be posted at the northern and southern ends of the Project site. The construction contractor shall respond and take corrective action within 24 hours of being contacted. The	Prior to and during construction	Construction Contractor	County of Tehama	Prior to and consistently throughout construction	Name and telephone number of construction contractor and TCAPCD contact is posted on a publicly visible sign. Construction

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		telephone number of the TCAPCD contact shall also be visible on the posted sign to ensure compliance with TCAPCD District Rule 4:1 and 4:24.					contractor responds and takes corrective action within 24 hours of being contacted.
19	**AQ-12**	All visibly dry, disturbed soil surface areas of operation shall be treated with a dust palliative agent and/or watered to minimize dust emissions.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Dry, disturbed soil surface areas are treated with a dust palliative agent and/or water.
20	**AQ-13**	Existing roads and streets adjacent to the Proposed Project site shall be cleaned at least once per day unless conditions warrant a greater frequency.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Existing roads and streets adjacent to the Project site are cleaned at least once per day.
21	**AQ-14**	Haul roads shall be sprayed down at the end of the work shift on a daily basis to form a thin crust. This application of water shall be in addition to the minimum rate of application.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Haul roads are sprayed down daily at the end of the work shift, in addition to minimum rate of application.
22	**AQ-15**	Construction workers shall park in designated construction staging areas developed for the Proposed Project to help reduce dust emissions.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Construction workers park in designated staging areas.
23	**AQ-16**	Soil pile surfaces on the construction site shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material shall be used to cover the soil piles to further reduce dust emissions.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	If dust is emitted, soil pile surfaces are moistened and adequately secured tarps, plastic or other material is used to cover soil piles.
BIOLOGICAL RESOURCES – Valley Oak/Grassland Association							
24	**BIO-1**	Highly visible ESA fencing shall be placed along the limits of work to protect adjacent Valley oak/grassland association. Fencing shall be maintained in good condition for the duration of construction activities.	Prior to and During Construction	Construction Contractor	County of Tehama	Prior to and consistently throughout construction	Highly visible ESA fencing is placed along the limits of work and

<table>
<tr><th>Monitoring Item Number</th><th>Initial Study Mitigation Measure</th><th>Mitigation Measure</th><th>Timing</th><th>Implementing Party</th><th>Monitoring Party</th><th>Frequency And Duration of Monitoring</th><th>Performance Criteria</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>is maintained in good condition.</td></tr>
<tr><td>25</td><td><u>BIO-2</u></td><td>Staging area, access routes, and construction areas shall be located outside of Valley oak/grassland areas to the maximum extent.</td><td>Prior to and During Construction</td><td>Construction Contractor</td><td>County of Tehama</td><td>Prior to and consistently throughout construction</td><td>Staging area, access routes, and construction areas are located outside of Valley oak/grassland areas to the maximum extent.</td></tr>
<tr><td>26</td><td><u>BIO-3</u></td><td>Following completion of the new bridge all temporary impact and/or otherwise disturbed areas shall be restored to preconstruction contours (if necessary) and revegetated with a native seed mix. A proposed seed mix is provided below in Table A: Native Seed Mix. Invasive exotic plants shall be controlled to the maximum extent.
Table A: Native Seed Mix
<table>
<tr><th>Scientific Name</th><th>Common Name</th><th>Rate (Lbs./Acre)</th><th>Minimum Percent Germination</th></tr>
<tr><td>Artemisia douglasiana</td><td>Mugwort</td><td>2.0</td><td>50</td></tr>
<tr><td>Bromus carinatus carinatus</td><td>California brome</td><td>5.0</td><td>85</td></tr>
<tr><td>Elymus trachycaulus</td><td>Slender wheatgrass</td><td>2.0</td><td>60</td></tr>
<tr><td>Elymus X triticum</td><td>Regreen</td><td>10.0</td><td>80</td></tr>
<tr><td>Eschscholzia californica</td><td>California poppy</td><td>2.0</td><td>70</td></tr>
<tr><td>Hordeum brachyantherum</td><td>California barley</td><td>2.0</td><td>80</td></tr>
</table></td><td>Post Construction</td><td>County Biologist</td><td>County of Tehama</td><td>Following Construction</td><td>Temporary impact and/or otherwise disturbed areas are restored to preconstruction contours and revegetated with a native seed mix. Invasive exotic plants are controlled to the maximum extent.</td></tr>
</table>

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		Lupinus bicolor — Bicolored lupine — 4.0 — 80					
27	**BIO-4**	The removal of riparian vegetation within the Valley oak/grassland association and permanent impacts to wetlands shall be accomplished using one of the following methods, or by using a combination of methods, contingent upon approval by the CDFW, ACOE, and RWQCB: •Preservation, creation, and/or restoration of the impacted resources at a minimum ratio of 3:1. This work shall occur solely within the Project impact area; •Purchase of credits at an approved mitigation bank at a minimum 1:1 mitigation ratio; and, •All mitigation lands shall be protected in perpetuity through recordation of a conservation easement or equivalent method.	Post Construction	County Biologist	County of Tehama	Following Construction	Removal of riparian vegetation and permanent impacts to wetlands are accomplished by one (or combination) of the following, contingent upon approval by the CDFW, ACOE, and RWQCB: •Preservation, creation, and/or restoration of the impacted resources at a minimum ratio of 3:1. This work shall occur solely within the Project impact area; •Purchase of credits at an approved mitigation bank at a minimum 1:1 mitigation ratio; and, •All mitigation lands shall be protected in perpetuity through recordation of a conservation easement or equivalent method.
BIOLOGICAL RESOURCES - Bats							

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
28	**BIO-5**	Construction activities that could affect roosting bats, as determined by a qualified biologist, shall be conducted during daylight hours to avoid disturbing bats potentially utilizing the bridge structure or trees at night.	During Construction	County Biologist / Construction Contractor	County of Tehama	Consistently throughout construction	Construction activities that could affect roosting bats are conducted during daylight hours.
29	**BIO-6**	Demolition of the bridge shall occur only after any bats roosting in the crevice and other day roost habitat have been humanely evicted: •To avoid impacts to non-volant pups or torpid adult bats, eviction must occur between March 1st through April 15th, and August 31st through October 15th; •A qualified bat biologist possessing a Memorandum of Understanding with the California Department of Fish and Wildlife and experience with humane bat eviction and exclusion shall either supervise the installation of, or install one-way exits at the roost cavity openings. These shall be installed at least 14 days prior to demolition and shall remain in place 10 to 14 days, followed by a survey to determine effectiveness. If all bats have been safely evicted, the crevices shall be sealed with suitable materials (expanding foam, backer rod, mesh, etc.) sufficient to remain until demolition; •Demolition shall take place any time after bats have been successfully humanely evicted; however, if demolition will not occur until after 180 days after eviction, a biologist shall conduct an inspection of the blockage materials to ensure they have remained effective. If materials have not remained in the roost crevices, surveys and/or eviction may need to be repeated.	During Construction (Prior to Bridge Demolition)	County Biologist / Construction Contractor	County of Tehama	Prior to and during demolition of the bridge	Demolition of the bridge occurs only after any roosting bats have been humanely evicted.
30	**BIO-7**	In-kind replacement habitat (e.g., creative habitat) consistent with the amount of habitat with evidence of use by bat colonies shall be provided on the new bridge in consultation with an experience bat biologist possessing a Memorandum of	Post Construction	County Biologist	County of Tehama	During and Following construction of the new bridge	In-kind replacement habitat is provided on the new bridge in consultation with qualified bat biologist.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		Understanding with the California Department of Fish and Wildlife and experience designing bat habitat.					
31	**BIO-8**	Demolition of the old bridge shall not occur until after the new bridge is completed and replacement bat habitat has been installed.	During Construction	County Biologist / Construction Contractor	County of Tehama	Prior to demolition of the bridge; following construction of the new bridge	Demolition of the old bridge occurs after the new bridge is completed and replacement bat habitat is installed.
BIOLOGICAL RESOURCES – Tricolored Blackbirds							
32	**BIO-9**	If construction begins during the nesting season (February 1st through August 31st), a survey for nesting tricolored blackbirds shall be conducted in the BSA and within a 100-foot radius by a qualified biologist. The survey shall be conducted a maximum of 14 days prior to the commencement of construction. The survey area may be decreased due to property access constraints. If no active nests are found, then no further action is warranted.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	If construction begins between February 1st and August 31st, a survey is conducted for nesting tricolored blackbirds in and within 100-foot radius of BSA.
33	**BIO-10**	If nesting tricolored blackbirds are found within 100 feet of the BSA during the survey, a setback of 100 feet from nesting areas shall be established and marked with ESA fencing. ESA fencing shall be maintained during the nesting season until construction is complete or the young have fledged, as determined by a qualified biologist.	Prior to and During Construction	County Biologist / Construction Contractor	County of Tehama	Prior to and during construction	ESA fencing is used and maintained to establish 100 feet setback from nesting areas.
34	**BIO-11**	Alternatively, the setback (if required) may be reduced if a qualified biologist is present to monitor the nest(s) when construction begins. If the biologist determines nesting is not affected by construction activities with the reduced setback, work can proceed. If it is determined that construction activities are adversely affecting the nesting birds with the reduce setback, all construction within 100 feet of a nest shall be halted until the biologist can establish an appropriate setback.	Prior to and During Construction	County Biologist / Construction Contractor	County of Tehama	Prior to and during construction	A setback is reduced only if a qualified biologist is present to monitor the nest. If adverse effects occur to the nesting birds, construction within 100 feet of the nest is halted.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
35	**BIO-12**	Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training shall instruct workers to recognize tricolored blackbirds and their habitat(s).	Prior to Construction	County Biologist	County of Tehama	Prior to Construction	Worker environmental awareness training is conducted for all construction personnel
36	**BIO-13**	All area temporarily disturbed during Project construction activities shall be restored at Project completion using a native seed mix as shown above in Table A.	Post Construction	County Biologist / Construction Contractor	County of Tehama	Following construction	All area temporarily disturbed during construction is restored using native seed mix.
BIOLOGICAL RESOURCES – Swainson's Hawk							
37	**BIO-14**	If work begins between February 1st and August 31st, an early season preconstruction survey for nesting Swainson's hawks shall be conducted in the BSA and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist when tree foliage is relatively sparse and nests are easy to identify. A second preconstruction survey for nesting Swainson's hawks shall be conducted in the BSA and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist no more than 14 days prior to initiation of earthmoving activities.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	If construction begins between February 1st and August 31st, an early season preconstruction survey and a second preconstruction survey (14 days prior to the initiation of earthmoving activities) for nesting Swainson's hawks are conducted in the BSA and immediate vicinity (approximately 0.25-mile radius).
38	**BIO-15**	If nesting Swainson's hawks are found within the survey area, a qualified biologist shall evaluate the potential for the Project to disturb nesting activities. California Department of Fish and Wildlife (CDFW) shall be contacted to review the evaluation and determine if the Project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures such as buffers. Disturbance of active nest shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged. If work is	Prior to and During Construction	County Biologist	County of Tehama	Prior to and during construction	If nests are found, an evaluation for the potential of Project activities to disturb nesting activities is conducted and CDFW is contacted to review the evaluation, to determine if the

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		allowed to proceed, at a minimum, a qualified biologist shall be onsite at the commencement of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the Project is adversely affecting nesting activities.					Project can proceed without adversely affecting nesting activities, and to establish buffers. Activities disturbing nests are avoided until young have fledged and a qualified biologist is on-site to monitor nesting activity.
39	**BIO-16**	Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training instructs workers to recognize Swainson's hawks and their habitat(s).	Prior to Construction	County Biologist	County of Tehama	Prior to construction	Worker environmental training is conducted for all construction personnel.
40	**BIO-17**	Highly visible ESA fencing shall be placed along the limits of work to prevent unnecessary encroachment into adjacent areas. Fencing shall be maintained in good condition for the duration of construction activities.	Prior to and During Construction	Construction Contractor	County of Tehama	Prior to and during construction	Highly visible ESA fencing is placed along the limits of work and is maintained in good condition.
BIOLOGICAL RESOURCES – Osprey							
41	**BIO-18**	If possible, all trees that will be impacted by Project construction shall be removed during the non-nesting season (between September 16th through February 1st), to avoid take of a nest or bird. If this is not possible, a survey for nesting osprey shall be conducted in the BSA and within a 500-foot radius by a qualified biologist. The survey shall be conducted a maximum of 14 days prior to the start of construction. The survey area may be decreased due to property access constraints, etc.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	All trees impacted by the Project are removed between September 16th and February 1st. If not possible, a survey for nesting osprey is conducted, by a qualified biologist, in and within 500-feet of the BSA. The survey is conducted a maximum

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
							of 14 days prior to the start of construction.
42	**BIO-19**	If nesting osprey are found within 500 feet of the BSA, a qualified biologist shall evaluate the potential for the Proposed Project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the BSA, and line of sight between the nest and the BSA.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	If nesting osprey are found, an evaluation for the potential to disturb nesting activities should be conducted.
43	**BIO-20**	CDFW shall be contacted to review the evaluation and determine if the Project construction can proceed without adversely affecting nesting activities.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	CDFW is contacted to review the evaluation and determines if construction can proceed.
44	**BIO-21**	If work is allowed to proceed, a qualified biologist shall be on-site weekly during construction activities that occur in the breeding season to monitor nesting activity. The biologist shall have the authority to stop work it if it determined that the Project is adversely affecting nesting activity.	Prior to Construction	County Biologist	County of Tehama	Prior to and during construction	Qualified biologist is on-site weekly to monitor nesting activities. The biologist has the authority to stop construction if adverse effects on nesting activity occur.
BIOLOGICAL RESOURCES – Pacific Pond Turtle							
45	**BIO-22**	Prior to the start of construction activities in the Sacramento River, the reach of the river within the BSA shall be surveyed by a qualified biologist for the presence of Pacific pond turtles. If Pacific pond turtles are observed in the BSA, they shall, in coordination with CDFW, be relocated outside of the work area by a qualified biologist.	Prior to Construction	County Biologist	County of Tehama	Prior to construction within Sacramento River	A survey is conducted, by a qualified biologist, for the presence of Pacific pond turtles. Any observed Pacific pond turtles within the BSA are relocated in coordination with CDFW.
46	**BIO-23**	Worker environmental awareness training shall be conducted by a qualified biologist for all construction personnel. This training	Prior to Construction	County Biologist	County of Tehama	Prior to construction	Worker environmental awareness training is

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		instructs workers to recognize Pacific pond turtles and their habitat(s).					conducted for all construction personnel.
47	**BIO-24**	Areas temporarily disturbed during construction shall be revegetated with the proposed seed mix specified above in Table A.	Post Construction	County Biologist / Construction Contractor	County of Tehama	Following construction	Temporarily disturbed areas are revegetated with the proposed seed mix.
BIOLOGICAL RESOURCES – Valley Elderberry Longhorn Beetle							
48	**BIO-25**	Prior to initiation of construction, the limits of all construction, access roads, staging areas, and any other ground disturbing activities, shall be staked. The staked areas shall be inspected by a qualified biologist. Based on this inspection, additional refinements to construction areas shall be performed to ensure a minimum 20-foot setback from the dripline of all elderberry plants.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	Construction limits are staked and inspected by a qualified biologist. A minimum 20-foot setback from the dripline of all elderberry shrubs is ensured.
49	**BIO-26**	Once the final limits of construction are set, highly visible ESA fencing shall be installed at the 20-foot setback around the perimeter of each elderberry plant or plant group (for example in the vicinity of the BLM access road which threads through the planted elderberry area). ESA fencing shall consist of highly visible construction fencing or equivalent, and shall be maintained until construction is complete. A qualified biologist shall be present during installation of fencing. The approximate location of ESA fencing is shown in Figure 4: Elderberry Locations and ESA Fencing.	Prior to Construction	County Biologist	County of Tehama	Prior to and during construction	Highly visible ESA fencing is installed at the 20-foot setback perimeter around each elderberry plant or plant group. A qualified biologist is present during installation of fencing and fencing is maintained throughout construction.
50	**BIO-27**	Signs shall be erected every 50 feet along the edge of the avoidance area with the following information posted: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment."	Prior to construction	County Biologist	County of Tehama	Prior to and during construction	Signs reading "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		The signs shall be clearly readable from a distance of 20 feet and shall be maintained for the duration of construction.					the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment" are erected every 50 feet along the edge of the avoidance area and are clearly visible from a distance of 20 feet. Signs are maintained for the duration of construction.
51	**BIO-28**	Employee awareness training shall be provided for the contractor to emphasize the need to avoid damaging elderberry plants and the possible penalties for not complying with these requirements.	Prior to Construction	County Biologist	County of Tehama	Prior to construction	Employee awareness training is provided for the contractor.
52	**BIO-29**	A qualified biologist shall periodically inspect the construction area to assure that the Project is not affecting any elderberry plants.	During Construction	County Biologist	County of Tehama	Periodically throughout construction	A qualified biologist periodically inspects the construction area.
53	**BIO-30**	No insecticides, herbicides, fertilizers, or other chemicals that might harm Valley Elderberry Longhorn Beetle or elderberry plants shall be used within 100 feet of any elderberry plant with stems measuring greater than 1-inch in diameter.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	No insecticides, herbicides, fertilizers, or other chemicals that may harm Valley Elderberry Longhorn Beetle or elderberry plants are used within 100 feet of any elderberry plant.
54	**BIO-31**	Any damage occurring within the elderberry buffer areas (within 100 feet of the elderberry plants) shall be restored and	Post Construction	County Biologist	County of Tehama	Following construction	Restoration and revegetation of any areas damaged within

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		revegetated with appropriate native species at the completion of construction.					100 feet of elderberry plants.
55	**BIO-32**	If a minimum 20-foot setback from the dripline of all elderberry plants in the BSA cannot be maintained for all Project activities, USFWS shall be contacted and additional mitigation measures may be required.	Prior to and During Construction	County Biologist	County of Tehama	Consistently throughout construction	USFWS is contacted if a minimum 20-foot setback from elderberry plants cannot be maintained.
BIOLOGICAL RESOURCES - Sacramento River Winter-Run Chinook Salmon, Central Valley Spring-Run Chinook Salmon, Southern DPS of North American Green Sturgeon, and Central Valley Steelhead							
56	**BIO-33**	In-water work shall be limited to the period between May 15th to September 30th during the first construction season, and during the period of late March through mid-September during the second construction season. The spring/summer in-water work window would avoid in-water work during high winter flows and minimize potential adverse effects to water quality. Any work occurring outside of the May 15 to September 30th period would be limited to construction site clean-up, deck work on the new bridge structure, and those activities that can be accomplished outside of the active channel, unless other activities are authorized by CDFW and NMFS based on a determination that due to weather conditions and water levels, salmonids are unlikely present.	During Construction	County Biologist / Construction Contractor	County of Tehama	During the first construction season between May 15th and September 30th; During the second construction season between late March through mid-September	In-water work is limited between May 15th to September 30th during the first construction season, and during the period of late March through mid-September during the second construction season.
57	**BIO-34**	Anti-spawning mats shall only be utilized during the first construction season. The mats shall be installed between March 1st and April 15th to avoid effects to winter-run chinook that could utilize the small area of spawning habitat located downstream of the bridge. Installation shall be monitored by a qualified fisheries biologist.	During Construction	County Biologist / Construction Contractor	County of Tehama	During the first construction season	Anti-spawning mats are only used during March 1st and April 15th of the first construction season.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
58	**BIO-35**	Anti-spawning mats shall be removed between October 15th and October 30th (of the first construction season), which is after the spawning period for the winter-run salmon. Removal shall be monitored by a qualified fisheries biologist.	During Construction	County Biologist / Construction Contractor	County of Tehama	During the first construction season	Anti-spawning mats are removed between October 15th and October 30th of the first construction season.
59	**BIO-36**	Anti-spawning mats shall be monitored on a weekly basis, by a qualified fisheries biologist, and maintained in proper functioning condition (i.e., secured to substrate without holes or establishment of spawning gravels on top of the mats). Should the anti-spawning mats not be functioning properly, all percussive construction work shall cease until the mats have been restored to proper functioning condition.	During Construction	County Biologist / Construction Contractor	County of Tehama	Weekly throughout the first construction season	Anti-spawning mats are monitored weekly by a qualified fisheries biologist. If anti-spawning mats do not function properly, all percussive construction work ceases until mats are restored.
60	**BIO-37**	Temporary gravel work pads shall be constructed on either end of the temporary work trestles to minimize the length of the trestles and, therefore, the number of piles required to support the trestles, which would result in less pile driving and associated acoustic impacts.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Temporary gravel work pads are installed on either end of temporary work trestles.
61	**BIO-38**	Gravel used for the temporary work pads shall consist of 1- to 4-inch diameter uncrushed, washed and rounded river rock (aka spawning gravel) and shall meet the Caltrans Gravel Cleanliness Specification No. 85. The stable layer that would need to be placed for the gravel approaches shall consist of the cleanest possible materials (i.e., metal sheets similar to aircraft landing mats). If unclean materials such as dirt need to be used, they shall be enveloped in geotextile fabric over the clean gravel to contain the material, and allow for a more complete and clean gravel removal from the river.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Temporary work pads consist of 1- to 4-inch diameter uncrushed, washed and rounded river rock and meets the Caltrans Gravel Cleanliness Specification No. 85. The stable layer that would need to be placed for the gravel approaches consists of the cleanest possible

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
							materials. Unclean materials are enveloped in geotextile fabric.
62	**BIO-39**	Following completion of construction, the bottom 1 foot of gravel shall be left in the channel to avoid impacts to the natural bed of the river and to provide a source of suitable spawning gravel to be dispersed by natural flows in the river.	Post Construction	Construction Contractor	County of Tehama	Following construction	The bottom 1 foot of gravel is left in the channel.
63	**BIO-40**	If the temporary CIDH casing is installed in free standing water, water trapped inside the casing shall be inspected by a qualified fishery biologist, prior to the next step in CIDH pile construction immediately following embedment of the temporary casing in the stream bed to ensure that no salmonids or sturgeon have been trapped within the casing (3/32-inch wire mesh would be installed on the bottom of the CIDH casing to prevent entrapment of salmonids or sturgeon inside the casing). Any trapped salmonids or sturgeon shall be removed and returned to the river. The fishery biologist shall note the number and condition of individuals trapped, the number of individuals relocated, and the date and time of collection and relocation. One or more of the following NMFS-approved capture techniques shall be used: dip net, seine, throw net, minnow trap, or hand. Electro fishing may be used if NMFS has reviewed the biologist's qualifications and provided written approval. The fishery biologist shall be empowered to halt construction activity and to recommend measures for avoiding adverse effects to salmonids and their habitats.	During Construction	County Biologist	County of Tehama	During construction	Water trapped inside the temporary CIDH casing is inspected by a qualified biologist to ensure no salmonids or sturgeon have been trapped within the casing. Any trapped salmonids or sturgeon are recorded (including the number and condition of individuals, and date and time of collection and relocation), removed and returned to the river.
64	**BIO-41**	Any water to be removed from the CIDH casings shall be pumped into settling basins on the bank with no return drainage to the river or into trucks for off-site disposal.	During Construction	County Biologist / Construction Contractor	County of Tehama	During construction	Water removed from CIDH casings is pumped into settling basins on the bank with no return drainage to the river or

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
							into trucks for off-site disposal.
65	**BIO-42**	Measures consistent with the current Caltrans' Construction BMPs Manual (including the SWPPP and WPCP Manuals) shall be implemented to minimize effects to the winter-run chinook and its critical habitat resulting from erosion, siltation, and other water quality impacts during and after construction.	During Construction	County Biologist / Construction Contractor	County of Tehama	Consistently throughout and post construction	Measures consistent with current Caltrans' Construction BMPs Manual are implemented.
66	**BIO-43**	Adequate fish passage within the Sacramento River at the Project site shall be maintained at all times. Approximately 200 feet of river channel width shall remain open for fish passage (total width of the river is approximately 300 to 350 feet). This would allow the opportunity for fish to move away from active work areas and to have unabated passage to and through the Project area.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Adequate fish passage (approximately 200 feet) remains open and maintained at all times.
67	**BIO-44**	During removal of the deck, heavy tarps or an equivalent debris collection device shall be placed under the bridge to minimize the potential for materials or liquids from falling into the Sacramento River.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction (removal of the deck)	Heavy tarps or equivalent debris collection device is placed under the bridge.
68	**BIO-45**	All construction activities associated with construction of the new bridge and demolition of the existing bridge, including construction of the temporary gravel work pads, temporary trestles, and temporary falsework, shall be conducted during daylight hours. The exception is minor activities associated with detour maintenance/traffic control, which may be conducted during nighttime hours.	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Construction activities are conducted during daylight hours, except minor activities associated with detour maintenance/traffic control.
69	**BIO-46**	Permanent loss of Shaded Riverine Aquatic (SRA) habitat, totaling 2.09 acres, shall be compensated at a 3:1 ratio. Accordingly, 6.27 acres of riparian floodplain forest credits shall be purchased at the Fremont Landing Conservation Bank or other NMFS-approved conservation bank to compensate for the loss of 2.09 acres of SRA resulting from implementation of the project.	Post Construction	County Biologist	County of Tehama	Following construction	SRA habitat is compensated at a 3:1 ratio.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
CULTURAL RESOURCES							
70	**CULT-1**	Archaeological Sites JFB-1, JFB-2 and CA-TEH-1783 shall be protected through implementation of the Environmentally Sensitive Area (ESA) Action Plan which details the procedures for installation, maintenance, and removal of ESA fences. The fences shall be located a minimum of 20 feet from the recorded boundaries of archaeological sites JFB-1, JFB-2 and CA-TEH-1783. All roadwork associated with implementation of the Proposed Project shall be directed away from these sensitive archaeological sites (JFB-1, JFB-2 and CA-THE-1783).	Prior to and During Construction	Archeologist / Construction Contractor	County of Tehama	Consistently throughout construction	Implementation of ESA Action Plan ensures protection of Archaeological Sites JFB-1, JFB-2 and CA-THE-1783, including installation, maintenance, and removal of ESA fences.
71	**CULT-2**	If deposits of previously undiscovered prehistoric or historic archaeological materials, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics, wood or similar debris, are discovered during Proposed Project construction activities (including grading, trenching, or other on-site excavations) construction activities within 25 feet of these materials shall be stopped by the construction contractor. A professional archaeologist certified by the Registry of Professional Archaeologists (RPA) shall be retained to evaluate the significance of the find and suggest appropriate identification, collection, and cataloguing procedures of the artifact(s).	During Construction	Archeologist / Construction Contractor	County of Tehama	Consistently throughout construction	If deposits of previously undiscovered prehistoric or historic archaeological materials are discovered during construction activities, all construction activities within 25 feet are stopped. A professional archaeologist is retained to evaluate the discovered materials.
72	**CULT-3**	If previously undiscovered paleontological resources are uncovered during Proposed Project construction activities (including grading, trenching, or other on-site excavations) construction activities within 25 feet of these materials shall be stopped by the construction contractor. A certified professional archaeologist/paleontologist shall be retained to evaluate the significance of the find and suggest appropriate identification, collection, and cataloguing procedures of the resources.	During Construction	Archeologist / Construction Contractor	County of Tehama	Consistently throughout construction	If deposits of previously undiscovered paleontological resources are discovered during construction activities, all construction activities within 25 feet

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
							are stopped. A professional archaeologist is retained to evaluate the discovered resources.
74	**CULT-4**	If human remains are encountered during construction activities on the Proposed Project site, work within 25 feet of the discovery shall be redirected away from the discovery and the Tehama County Coroner notified immediately. At the same time, an archaeologist shall be retained to evaluate the human remains that have been found. The construction contractor shall advise all of the construction crew working in the area of the discovery to not collect or move any human remains and associated materials. If the human remains are determined to be of Native American origin, the Coroner shall notify the Native American Heritage Commission with 24 hours of discovery and identification. The Native American Heritage Commission shall identify a Native American Most Likely Descendent (MLD) to inspect the site and provide direction and recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the evaluation, a report shall be prepared documenting the methods and results, as well as recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be summited to Tehama County and the Northwest Information Center.	During Construction	Archeologist / County Coroner / Construction Contractor	County of Tehama	Consistently throughout construction	If human remains are encountered during construction activities, all work within 25 feet of the discovery is redirected, the Tehama County Coroner is notified, and an archeologist shall be retained to evaluate the remains. If the remains are determined to be of Native American origin, the Coroner notifies the Native American heritage Commission within 24 hours of discovery and identification.
75	**CULT-5**	The three prehistoric archaeological cultural resources that have been identified (JFB-1, JFB-2 and CA-THE-1783) in the vicinity of and within the Proposed Project site shall be considered eligible for inclusion in the National Register for the purposes of the Proposed Project. Subsurface testing and/or surface collection	During Construction	Archeologist / Construction Contractor	County of Tehama	Consistently throughout construction	The three identified prehistoric archaeological cultural resources are considered eligible for

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		at these prehistoric archaeological cultural resources shall not be conducted as they have already been identified as an important archaeological resource in the area. The establishment of ESAs as discussed above in **Mitigation Measure CULT-1** shall protect these three prehistoric archaeological resources that have been identified in accordance with Section 106 Programmatic Agreement Stipulation VIII.C.3.					inclusion in the National Register. Subsurface testing and/or surface collection are not conducted.
HYDROLOGY/WATER QUALITY							
76	**WQ-1**	Construction Site BMPs shall be prepared and implemented in compliance with the provisions of Caltrans' Statewide NPDES Permit and any subsequent permit as they relate to construction activities for the proposed Project. Such requirements shall include submission of a Notice of Construction (NOC) to the California Regional Water Quality Control Board Central Valley Region (CRWQCB-CVR) at least 30 days prior to the start of construction, preparation, and implementation of a Stormwater Pollution Prevention Plan (SWPPP), and submission of a Notice of Construction Completion.	Prior to and During Construction	Project Engineer / Construction Contractor	County of Tehama	Prior to and consistently throughout construction	Construction site BMPs are prepared and implemented in compliance with Caltrans' Statewide NPDES Permit and any subsequent permit.
77	**WQ-2**	Design Pollution Prevention and Treatment Control BMPs for the Project shall be incorporated in accordance with the procedures in the Stormwater Quality Handbooks, Project Planning, and Design Guide. The County shall coordinate with CRWQCB-CVR with respect to feasibility, maintenance, and monitoring of Treatment Control BMPs as set forth in Caltrans' Statewide SWMP.	Prior to and During Construction	Project Engineer / Construction Contractor	County of Tehama	Prior to and consistently throughout construction	Incorporation of Design Pollution Prevention and Treatment Control BMPs.
78	**WQ-3**	Per standards set forth by the State of California Reclamation Board and FEMA all temporary construction facilities shall be removed from the floodplain during flood seasons.	During Construction	Project Engineer / Construction Contractor	County of Tehama	During construction flood seasons	Temporary construction facilities are removed from the floodplain during flood seasons.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
79	**WQ-4**	The Project proponent, during construction and post-construction activities, shall implement the suggested minimization, avoidance, and/or mitigation measures that have been identified in the Natural Environment Study prepared for the proposed Project in April 2014. Such measures to be implemented would ensure that aquatic habitat disturbed within the Project boundary would be mitigated for and would ensure that surface and groundwater quality in the area is not impacted.	During and Post Construction	Project Engineer / Construction Contractor	County of Tehama	Consistently throughout and following construction	Implementation of suggested minimization, avoidance, and/or mitigation measures that have been identified in the Natural Environment Study.
80	**WQ-5**	The Project proponent shall implement the following measures to reduce impacts caused by scour due to implementation of the proposed Project: Minimum Soffit Elevation: The Jellys Ferry Road Bridge over the Sacramento River and the Overflow No. 2 Bridge shall be designed to meet the minimum soffit elevations recommended by Caltrans and FHWA in the location of the proposed Project. The minimum soffit elevation of a bridge over the Sacramento River meeting the recommendations of Caltrans and FHWA is 352.0 feet North American Vertical Datum of 1988 (NAVD-88). This represents the water surface elevation of the Standard Design Flood (50-year flood) plus 3.0 feet of clearance for drift. The minimum soffit elevation of a bridge over the north overflow meeting the recommendations of Caltrans and FHWA is 353.8 feet NAVD-88. All piers of the Overflow No. 2 Bridge shall be designed considering potential scour to an elevation of 331.3 feet NAVD-88. Pier Scour: Piers 2 and 3 of the new Jellys Ferry Road Bridge over the Sacramento River channel shall be designed considering potential scour to an elevation of 285.1 feet NAVD-88. Piers 4, 5, and 6 of the Jellys Ferry Road Bridge shall be designed considering potential scour to an elevation of 313.8	Prior to and During Construction	Project Engineer	County of Tehama	Prior to and consistently throughout construction	Implementation of the following measures: minimum soffit elevation recommendations, pier scour recommendations, abutment scour recommendations, and abutment protection recommendations.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		feet NAVD-88. All piers of the Overflow No. 2 Bridge shall be designed considering potential scour to an elevation of 331.3 feet NAVD-88. Abutment Scour: Abutment 7 of the new Jellys Ferry Road Bridge over the Sacramento River channel shall be designed considering or protected against a total potential scour to an elevation of 325.0 feet NAVD-88. Both abutments of the Overflow No. 2 Bridge over the north overflow channel shall be designed considering or protected against potential scour to an elevation of 339.0 feet NAVD-88. (Notes regarding estimates of potential scour: Potential scour has been estimated using empirical equations presented in FHWA HEC-18. These equations do not consider geotechnical conditions and therefore assume all substrate is erodible. The potential scour estimates identified in the March 2014 Hydrology Report prepared for the proposed Project may be appropriate if a geotechnical investigation identifies material resistant to erosion at higher elevations.) Abutment Protection: Abutment protection shall be installed to reduce the potential for damage to abutments from bank erosion and bank migration. Bank protection shall be designed such that the protection does not represent a new encroachment in the floodplain.					
NOISE							
81	**NOI-1**	During construction activities, the construction contractor shall ensure that all construction equipment operating near the two identified sensitive receptors (located east and west of the southern portion of the Proposed Project site) are in good working order and that adequate muffler systems are used on the equipment to reduce temporary increases in the ambient noise level. Construction equipment shall be located as far from	During Construction	Construction Contractor	County of Tehama	Consistently throughout construction	Construction equipment operating near the two identified sensitive receptors are in good working order and use adequate muffler systems.

Monitoring Item Number	Initial Study Mitigation Measure	Mitigation Measure	Timing	Implementing Party	Monitoring Party	Frequency And Duration of Monitoring	Performance Criteria
		the sensitive receptors as possible but still be able to complete the construction activities. If construction equipment needs to operate near the sensitive receptors they shall do so only when necessary and shall be switched off when that particular piece of equipment is not in use. Construction activities shall comply with appropriate noise-related goals, policies, and objectives as presented in the *Tehama County General Plan Update 2009-2029* as well as Caltrans standards specifications Section 7-1.01I "Sound Control Requirements".					Construction equipment is located as far from the sensitive receptors as possible and is switched off when not in use.