Initial Study/
Mitigated Negative Declaration

Evergreen Road at South Fork Cottonwood Creek Bridge Project

Tehama County

September 2012

COUNTY OF TEHAMA
DEPARTMENT OF PUBLIC WORKS
9380 San Benito Avenue
Gerber, CA 96035-9701
Bus: (530) 385-1462
Fax: (530) 385-1189

Road Commissioner
Surveyor
Engineer
Public Transit
Flood Control and
Water Conservation District
Sanitation District No. 1

Date: September 21, 2012

To: Interested Parties

From: Kevin Rosser, Tehama County

Subject: Notice of Intent to Adopt a Proposed Mitigated Negative Declaration for the Evergreen Road at South Fork Cottonwood Creek Bridge Project

Tehama County has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental effects of the Evergreen Road at South Fork Cottonwood Creek Bridge Project (project or proposed project), which is located in the northern portion of Tehama County on Evergreen Road over the South Fork of Cottonwood Creek. The project area is in a rural area, approximately 3 miles west of Interstate 5. The proposed project consists of the following: realign approximately 0.8 mile of Evergreen Road, construct a new bridge along the road across the South Fork Cottonwood Creek, remove the existing bridge, excavate along the creek to increase the capacity of the channel upstream of the new structure, install a left turn lane on Bowman Road at Evergreen Road, replace in-situ the ACID canal crossing, and modify the ACID pipeline under Evergreen Road.

Tehama County has prepared a Draft IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. To implement the proposed project, Tehama County also requires permission from the Federal Highway Administration (FHWA). A separate National Environmental Policy Act (NEPA) environmental document will be prepared by Caltrans in association with FHWA to evaluate those impacts associated with their decision making processes for federal funding. Tehama County is moving forward with the separate IS/MND at this time to provide environmental documentation necessary to facilitate the initiation of State and/or local approvals needed for construction of the project in 2015.

The IS/MND identifies potentially significant impacts related to: air quality, biological resources, water quality, and noise. All impacts are reduced to less-than-significant levels with implementation of recommended mitigation measures.

The IS/MND is being circulated for public review and comment for a 30-day period beginning on September 21, 2012, and ending on October 22, 2012. The IS/MND may be reviewed at Tehama County's Website [http://www.co.tehama.ca.us/]; at the Tehama County office located at 9380 San Benito Avenue, Gerber, CA 96035; and at the Tehama County Library, Corning Branch at 740 3rd Street, Corning, CA 96021.

Please send written comments on the IS/MND to Kevin Rosser, Civil Engineer, Tehama County, 9380 San Benito Avenue, Gerber, CA 96035, fax (530) 385-1293. Comments may also be sent via e-mail to KRosser@tcpw.ca.gov. For e-mailed comments, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address. The Tehama County Board of Supervisors will hold a public hearing to consider adoption of the IS/MND at 10:00am on October 30, 2012 at 727 Oak Street, Red Bluff, CA 96080.

Mitigated Negative Declaration

PROJECT: Evergreen Road at South Fork Cottonwood Creek Bridge Project

LEAD AGENCY: Tehama County

PROJECT DESCRIPTION: Tehama County Public Works proposes to replace the Evergreen Road Bridge (08C-0008) crossing the South Fork Cottonwood Creek southwest of the town of Cottonwood in northern Tehama County, California. The proposed project includes construction of a new bridge, removal of the existing bridge, realignment of Evergreen Road to match the new bridge location, excavation along the creek to increase the capacity of the channel upstream of the new structure, replacement of the Anderson Cottonwood Irrigation District canal crossing and pipeline under the road, and widening Bowman Road at its intersection with Evergreen Road. The purpose of the project is to replace the Evergreen Road Bridge (08C-0008), which is structurally deficient to withstand a seismic event and functionally obsolete due to inadequate curves near the bridge. New approaches to the bridge would correct three of the four severe curves along Evergreen Road, and the new bridge would provide motorists with an adequate structure crossing the South Fork Cottonwood Creek.

PUBLIC REVIEW: The Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) was submitted to the State Clearinghouse on September 21, 2012, for a 30-day public review period that will end on October 22, 2012. During the public review period, the Draft IS/MND is available for review at the Tehama County office located at 9380 San Benito Avenue, Gerber, CA 96035 and at the Tehama County Library, Corning Branch at 740 3rd Street, Corning, CA 96021. The Draft IS/MND is also available on Tehama County's Website at: [http://www.co.tehama.ca.us].

FINDINGS: The IS prepared for the proposed project assesses the potential effects on the environment and the significance of those effects. Based on the results of the IS, the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following findings:

- The project would not affect forestry resources, geologic conditions, land use and planning, mineral resources, population and housing, public services, and recreation.

- The project would have a less-than-significant effect on aesthetics, agricultural resources, biological resources (Central Valley steelhead and Central Valley Spring-run Chinook salmon), cultural resources, soil resources, greenhouse gas emissions, hydrology, hazards and hazardous materials, transportation/traffic, and utilities and service systems.

- The project would have a less-than significant effect, once mitigation measures are implemented, on air quality (temporary fugitive dust and emissions from construction), biological resources (temporary impacts on valley elderberry longhorn beetle, special-status and nesting birds, northwestern pond turtle, foothill yellow-legged frog, and special-status bats; loss of riparian habitat; placement of fill into South Fork Cottonwood Creek; excavation along the creek), noise (temporary noise from construction), and water quality (temporary increase in pollutants and sediment in creek during construction).

- The project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.

- The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

- The project would not have environmental effects that are individually limited but cumulatively considerable.

- The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

- No substantial evidence exists that the project would have a significant negative or adverse effect on the environment.

- The project incorporates standard construction measures, as described in the IS, and all applicable mitigation measures, as listed below and described in the IS.

In addition to standard construction measures required by Caltrans Standard Specifications and other applicable laws, regulations, and policies, the following mitigation measures will be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potentially significant environmental impacts of the proposed project to a less-than-significant level.

- **Mitigation Measure AIR-1: Implement dust and emissions control measures during construction activities.**
- **Mitigation Measure BIO-1: Implement measures to avoid disturbance to elderberry shrubs during construction.**
- **Mitigation Measure BIO-2: Implement measures to transplant or compensate for removed elderberry shrubs.**
- **Mitigation Measure BIO-3: Implement pre-construction surveys and avoidance measures for other special-status wildlife.**
- **Mitigation Measure BIO-4: Minimize and compensate for impacts to riparian habitat and wetlands as a result of project implementation.**
- **Mitigation Measure WQ-1: Implement measures to protect water quality during construction.**
- **Mitigation Measure NOISE-1: Maintain and equip construction equipment with noise control devices.**
- **Mitigation Measure NOISE-2: Coordinate with residences to minimize noise disturbance.**

_____

Gary Antone, P.E., P.L.S.
Director of Public Works, Tehama County

Table of Contents

Mitigated Negative Declaration MND-1

Chapter 1 - Introduction 1
1.1 Purpose of the Initial Study 1
1.2 Supporting Technical Studies 1
1.3 Summary of Findings 2
1.4 Document Organization 2

Chapter 2 - Project Description 3
2.1 Location 3
2.2 Project Purpose 3
2.3 Project Description 3
2.4 Required Permit Approvals 11

Chapter 3 - Environmental Checklist 12
3.1 Aesthetics 14
3.2 Agriculture and Forestry Resources 15
3.3 Air Quality 17
3.4 Biological Resources 24
3.5 Cultural Resources 40
3.6 Geology and Soils 42
3.7 Greenhouse Gas Emissions 45
3.8 Hazards and Hazardous Materials 47
3.9 Hydrology and Water Quality 50
3.10 Land Use and Planning 55
3.11 Mineral Resources 56
3.12 Noise 56
3.13 Population and Housing 60
3.14 Public Services 61
3.15 Recreation 62
3.16 Transportation/Traffic 63
3.17 Utilities and Service Systems 65
3.18 Mandatory Findings of Significance 67

Chapter 4 - Report Preparation and References 69
4.1 Report Preparation 69
4.2 References 69

List of Tables

Table 1. Required Permit Approvals 11
Table 2. National and State Air Quality Standards 19
Table 3. Anticipated Project-Related Impacts on Elderberry Shrubs 30
Table 4. Proposed Replacement Ratios for Removed Elderberry Shrubs 36
Table 5. Typical Construction-Related Noise Levels 58

Appendix A Figures

Figure 1. Project Location and Vicinity
Figure 2. APE/Project Design
Figure 3. Farmland in Project Area
Figure 4. Habitat Types and Waters in Project Area
Figure 5. Soil Types in Project Area

Appendix B Special-Status Species Table and Lists

Appendix C Greenhouse Gas Emissions Modeling (Thomes Creek Project)

Appendix D Mitigation Monitoring and Reporting Plan

Acronyms and Abbreviations

ACID	Anderson Cottonwood Irrigation District
APCD	Air Pollution Control District (Tehama County)
APE	Area of Potential Effects
BMP	best management practice
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CO2	carbon dioxide
County	Tehama County Public Works
dB	decibel
EPA	U.S. Environmental Protection Agency
ESU	Evolutionarily Significant Unit
GHG	greenhouse gas
I-5	Interstate Highway 5
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NSR	North State Resources, Inc.
PM	particulate matter
ROG	Reactive Organic Gases
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminant
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

Chapter 1 - Introduction

Tehama County Public Works (County) proposes to replace the Evergreen Road Bridge (08C-0008) crossing the South Fork Cottonwood Creek southwest of the town of Cottonwood in northern Tehama County, California. The proposed project includes construction of a new bridge, removal of the existing bridge, realignment of Evergreen Road to match the new bridge location, excavation along the creek to increase the capacity of the creek upstream of the new structure, replacement of the Anderson Cottonwood Irrigation District (ACID) canal crossing and pipeline under the road, and widening Bowman Road at its intersection with Evergreen Road. This Initial Study identifies the potential environmental impacts of the proposed project to determine whether the project may have a significant effect on the environment and identifies mitigation measures, where applicable, to reduce any potentially significant effects to a level of insignificance.

1.1 Purpose of the Initial Study

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (California Code of Regulations, title 14, sections 15000 et seq.), which require that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. The County is the Lead Agency under CEQA. The County is receiving state and federal funding under the Highway Bridge Replacement and Rehabilitation Program, State Transportation Improvement Program, and Proposition 1B Local Safety Seismic Retrofit Program administered by the California Department of Transportation (Caltrans), and Caltrans, under programmatic agreement with the Federal Highway Administration, will be responsible for compliance with the National Environmental Policy Act (NEPA) and other federal laws as part of its project approval process.

1.2 Supporting Technical Studies

This document is supported by several site-specific investigations conducted by North State Resources, Inc. (NSR) and other technical studies conducted by other firms, as listed below. These technical studies are part of the County's project file and are available for public inspection at the Tehama County Department of Public Works at 9380 San Benito Ave., Gerber, California, excluding confidential information not releasable to the public.

- Draft Biological Assessment for the Valley Elderberry Longhorn Beetle (NSR 2006)
- Draft Biological Evaluation/Essential Fish Habitat Assessment, Evergreen Road at South Fork Cottonwood Creek Bridge (Bridge No. 08C-0008) Replacement Project (NSR 2005a)
- Evergreen Road at South Fork Cottonwood Creek Bridge (08C-0008) Replacement Project, California Red-Legged Frog Site Assessment (NSR 2005b)

- Evergreen Road at South Fork Cottonwood Creek Bridge (Bridge No. 08C-0008) Replacement Project, Draft Delineation of Waters of the United States, Including Wetlands (NSR 2005c)

- Evergreen Road at South Fork Cottonwood Creek Bridge Replacement Project, Draft Natural Environmental Study (NSR 2005d)

- Historic Property Survey Report for Evergreen Road Bridge (#08C-0008) Replacement Project, Tehama County, California (Far Western Anthropological Research Group, Inc. 2006)

- Evergreen Road over South Cottonwood Creek, Existing Condition Hydraulic Analysis (Pacific Hydrologic Incorporated 2005)

1.3 Summary of Findings

Chapter 3 of this Initial Study contains the Environmental Checklist from Appendix G to the CEQA Guidelines and discusses the environmental impacts of the proposed project. Mitigation measures are identified for potentially significant impacts. Based on the analysis in that chapter, the following resources would not be affected by the proposed project:

- Forestry Resources
- Geologic Conditions
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation

The proposed project would result in less-than-significant impacts on the following resources:

- Aesthetics
- Agricultural Resources
- Cultural Resources
- Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology
- Transportation/Traffic
- Utilities and Service Systems

The proposed project would result in less-than-significant impacts *after* mitigation on the following resources:

- Air Quality
- Biological Resources
- Water Quality
- Noise

Thus, with the incorporation of mitigation measures described in this Initial Study, the proposed project would not have a significant effect on the environment.

1.4 Document Organization

The remainder of this document is organized into the following sections:

- **Chapter 2 Project Description –** Provides a description of the proposed project;
- **Chapter 3 Environmental Checklist –** Provides a description of the environmental setting and analysis of impacts, with mitigation measures identified for potentially significant impacts;
- **Chapter 4 Report Preparation and References –** Identifies personnel responsible for preparation of this document and provides a list of references cited throughout the document.
- **Appendices –** Present figures and additional information to support the Initial Study, including the mitigation monitoring and reporting plan.

Chapter 2 - Project Description

2.1 Location

The existing Evergreen Road Bridge is located approximately 3.5 miles southwest of the town of Cottonwood, California. Evergreen Road begins at Bowman Road approximately 3 miles west of Interstate 5 (I-5). The project area (also referred to as Area of Potential Effects or APE) encompasses approximately 46 acres along Bowman and Evergreen roads, including approximately 0.7 mile along Bowman Road and 1 mile along Evergreen Road. It is in Sections 17 and 20, Township 29 North, Range 4 West on the *Hooker, California* 7.5-minute U.S. Geological Survey quadrangle map, Mount Diablo Base & Meridian (see Figure 1, all figures are included in Appendix A).

2.2 Project Purpose

The purpose of the project is to replace the Evergreen Road Bridge (08C-0008), which is structurally deficient to withstand a seismic event and functionally obsolete due to insufficient width, capacity, and inadequate curves near the bridge. A Seismic Retrofit Strategy Report completed in February 1997 concluded that the substructure of the Evergreen Road Bridge is incapable of withstanding lateral loading associated with an earthquake. Accordingly, this bridge is identified for replacement within the state Seismic Retrofit Program.

Further, Evergreen Road has four severe curves in the vicinity of the bridge, which pose safety concerns for motorists. Delivery trucks, school buses, and emergency vehicles as well as the traveling public have difficulties traversing the 90-degree angle turns on both approaches to the bridge. Large farm trucks and trucks carrying trailers often scrape the southeast corner of the bridge approach guardrail. Several accidents have been reported along the road as a result of the severe curves. The bridge is important to the local community because it provides a direct year-round access route for the area north of the creek, provided the approaches are not flooded. An alternative route to properties north and west of the bridge is available using Luce and Griswold Road, which is a 6-mile detour further west off of Bowman Road.

New approaches to the bridge and the modified alignment would correct three of the four severe curves along Evergreen Road, and the new bridge would provide motorists with an adequate structure crossing the South Fork Cottonwood Creek.

2.3 Project Description

Background

The Evergreen Road Bridge substructure was built before 1955, and the existing superstructure was built in 1955. The superstructure consists of five spans and has a total length of approximately 215 feet. The bridge is 19 feet wide with a travel way of 18.5 feet (single lane) and is located on a tangent between two severe curves. Stop signs at each end of the bridge limit traffic across the bridge to one car at a time. Metal-beam guardrails are located on the south side of the bridge on the west end and on the north side of the bridge on the east end. The

abutments are seat type. The County has a 50-foot-wide right of way (ROW) surrounding the current structure. The roadway approaching the bridge has two 12-foot wide lanes and approximately 4-foot wide shoulders. The roadway is chipseal with an unknown subsurface material.

Traffic along Evergreen Road has steadily increased since the 1960s, and the County estimates a 30 percent annual growth rate based on traffic counts conducted between 1966 and 2000. The road primarily serves agricultural lands and residences north of the South Fork Cottonwood Creek. Twenty five accidents were reported along the road in the project area between 1995 and 2007 and are likely the result of severe curves along the first 0.6 mile of Evergreen Road north of Bowman Road. Scrapes are also evident along the guardrail on the southeast side of the bridge. Many permit loads are denied access across the bridge due to lack of structure capacity.

The bridge was evaluated in 1997 in accordance with the Seismic Safety Retrofit Program (SB 36X), which was established for the seismic retrofit of bridges to prevent their collapse due to earthquakes. The bridge evaluation concluded that the bridge should be replaced instead of rehabilitated. The County reviewed various options for bridge replacement and developed a project report to discuss the options. The original proposed alignment was approved by the Board of Supervisors in March 2005, and the project was identified in the 2006 Tehama County Regional Transportation Plan (identification number 2379), which was adopted on November 21, 2006 (Tehama County 2006). The revised alignment (current proposed project) was approved by the Board of Supervisors on August 5, 2008.

Proposed Project

The proposed project consists of the realignment of a 0.8-mile segment of Evergreen Road and replacement of the existing bridge. The realignment would meet current local road design standards, comply with the no rise in floodwater requirement, and bring the substandard curves in the project area into compliance with current standards. The realignment would reduce the severity of curves approaching the new bridge and shift Evergreen Road about 175–230 feet northeast of the sharp curve south of the bridge and 100–375 feet west of the current alignment north of the bridge (see Figure 2 in Appendix A). The modified curve south of the bridge has been designed for speeds of 50 miles per hour. The new alignment would correct three of the four severe curves along Evergreen Road. The number of through-traffic lanes would not increase along the road, and the road approaching the new bridge on both sides would have two 12-foot-wide lanes with 6-foot-wide shoulders, consistent with the existing roadway.

The modified alignment would require the replacement and extension of the 11-foot-long ACID concrete culvert under Evergreen Road at the west end of the project area with a new culvert that spans the new ROW. The culvert connects the ACID canal on either side of the road and allows the canal to cross under the road. In addition to the culvert modifications, an existing ACID pipeline would be extended to a new location upstream of the current crossing at the west end of Evergreen Road; this would also require the rebuilding of an elevation control station upstream of the new pipe location and reconfiguring four out-takes for the surrounding properties. Some work would be necessary in the ACID earthen irrigation ditch just north of the existing Evergreen Road alignment (see Figure 1 for approximate location of the pipeline

modification). The pipeline would be underground and would connect to existing pipeline segments in and adjacent to the project area.

The project would also include the widening of Bowman Road with an eastbound left turn lane onto Evergreen Road and a left turn lane onto Plateau Drive.

The new bridge over the South Fork Cottonwood Creek would be located approximately 400 feet upstream (south) of the existing bridge (see Figure 2 in Appendix A). It would be 330 feet long and 32 feet wide and have four sections, which would minimize the depth of the structure and lower the approach fills. It would be a cast-in-place concrete box girder bridge with two 12-foot-wide lanes; 6-foot-wide shoulders, consistent with the existing road width and wider than the existing bridge; and 1-foot-wide guardrails. Because of the change in the road alignment and new bridge location, a large amount of cut and fill would be necessary for construction (see Construction Activities below).

The proposed project would require ROW easements from two landowners to modify the alignment. (The final decision to acquire such easements and proceed with the project as proposed will not be made until the Tehama County Board of Supervisors adopts a Resolution of Necessity in accordance with the Code of Civil Procedure.) The land on the west side of Evergreen Road is currently used for agricultural purposes. The land on the east/north side of Evergreen Road and east of the creek is under a Williamson Act contract, but the portion of land within the APE is not currently used for agricultural purposes. The new ROW would vary from 60 feet wide along the roadway to 160 feet wide along the bridge to accommodate the approaches to the bridge and allow for maintenance access.

Existing electric, phone, and joint use poles would be relocated, as necessary, within the new County ROW to follow the new alignment.

The new alignment includes access to portions of the existing road that would be used to access properties as an auxiliary road. Roadway no longer useful to access properties would be pulverized, removed, and recontoured to match surrounding conditions. Removed roadway segments would be allowed to naturally restore through establishment of vegetation from adjacent areas.

The existing bridge would remain open during construction of the new bridge. Once the new bridge is finished and open for travel, the old bridge would be removed and the area would be contoured to match surrounding conditions.

Construction Activities

In-Stream Construction

False work would be required in the channel for the cast-in-place concrete box girder bridge. The contractor would not place any false work supports directly in the live stream of the South Fork Cottonwood Creek. It should be noted that the South Fork Cottonwood Creek at the location of the new bridge is dry during the late summer months, and bridge construction would be scheduled during these months. Dewatering may be necessary for the construction of foundations and piers, and the water would be reclaimed on-site for irrigation purposes.

Foundations would be constructed at the abutments at each end of the new bridge and for the piers under the bridge in the creek. The abutments at the ends are likely to consist of standard Caltrans Class 70 (70-ton) driven steel piles, and pier foundations within the channel would likely consist of 8-foot cast-in-drilled-hole piles. The footing for the pile foundations at the abutments would be located such that the top of footing is below the channel degradation elevation.

Channel Modifications

Most of the project activities would take place within the South Fork Cottonwood Creek floodplain, which is under the jurisdiction of the Central Valley Flood Protection Board. The Board requires 3 feet of clearance between the 100-year flood elevation and the soffit of the bridge. In an effort to create capacity within the channel and bridge, a section of the creek approximately 400 feet long by 40 feet wide along the west bank directly upstream (south) of the new structure would need to be excavated. The excavated material would be re-used on-site as part of the project. Based on modeling conducted for the County (Pacific Hydrologic Incorporated 2005), this excavated area is not expected to naturally fill back in with sediment, which would ensure the flood elevation is maintained over time.

Construction Equipment

The following equipment is anticipated to be needed for project construction:

- 2 hydraulic excavators
- 2 utility excavators
- 2 bulldozers (D-8 or smaller)
- 2 graders
- 2 water wagons
- 10 highway dump trucks
- 10 concrete mixer delivery trucks
- 1 concrete pump truck
- 1 drill rig
- 1 pile driver
- 1 lubricating truck
- 1 front-end loader
- 1 truck-mounted crane
- 2 integrated tool carriers
- 10 pick-up trucks
- 1 pump

Approximately 15 workers could be anticipated to construct the project.

Staging and Access

The contractor staging area would be designated along the new alignment and on lands between the new alignment and the existing alignment within the APE, if needed. The new alignment should provide sufficient area for the contractor to stage equipment and materials during construction.

Access to the creek would initially be established at the western abutment for the new bridge. Access would likely be made by removing vegetation and excavating the bank to create a slope acceptable for pile driving equipment and other machinery to gain access to the creek bottom. Access to the creek would also be available via an existing access point upstream of the old bridge. The dry portion of the stream channel from the old bridge to 100 feet upstream of the new bridge would be used as a laydown area while the falsework is being constructed.

The existing bridge crossing on Evergreen Road would be kept open during construction for through traffic. The existing road would also remain open and be used to the extent possible, and a temporary road may be constructed to detour traffic around the work area if necessary. The temporary road would be primarily located within the APE in areas disturbed by construction or in previously disturbed areas.

Fill Import and Export

Ground disturbance associated with road construction and bridge removal would be limited to two primary areas: the location of the new alignment of Evergreen Road, including the new bridge; and the area slated for removal of the existing bridge, piers, and approaches. Imported material would be required for the approach fill. The material would come from a mine site in the region that is approved under the Surface Mining and Reclamation Act. Fill for the approaches would not be placed in the South Fork Cottonwood Creek. Channel modifications would involve excavation of material from the creek, as described above, which would be re-used on-site to minimize the amount of imported material needed.

Bridge Removal/Demolition

Bridge removal would conform to the provisions of Section 15-4 of the Caltrans Standard Specifications (Caltrans 2010). A bridge removal work plan will detail the removal sequence, temporary supports, types of protective covers, and protection of people and the environment from lead-based paint and falling objects. A tarp would likely be placed below the bridge to capture falling debris for removal while the span's members are sheared using mechanical means. Piling, piers, and abutments would be removed 3 feet below finished grade. The banks and channel would be contoured to blend in with the surrounding landform. Hyrdoseeding and tree planting would facilitate concealing the former structure's location.

Construction Measures

Tehama County would retain a construction contractor for construction of the proposed project. The contractor will be responsible for implementing construction measures identified below, as well as the specific mitigation measures identified in this Initial Study, to minimize or prevent environmental impacts; these measures will be identified in the contractor specifications. The following standard construction measures are required by Caltrans Standard Specifications (latest edition is 2010), California Codes, or other agency policies and regulations:

- Temporary traffic control measures will be implemented in accordance with Section 12 of the Caltrans Standard Specifications and will include the use of flaggers, traffic-handling equipment and devices, traffic control systems, temporary pavement delineators, and other applicable measures.

- Traffic will be maintained through the work zone pursuant to Section 12-4 of the Caltrans Standard Specifications.

- Discharges of stormwater from the project must comply with National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ as modified by 2010-0014-DWQ, NPDES No. CAS000002) and Section 13 of the Caltrans Standard Specifications.

- In compliance with the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the project. The plan will include best management practices (BMPs) to implement during construction, monitoring and reporting requirements, and any other items required by the Regional Water Quality Control Board (RWQCB) or Caltrans. Typical BMPs from Caltrans' *Construction Site Best Management Practices Manual* (2003) include:

    - Temporary soil stabilization measures, such as hydraulic mulch, hydroseeding, soil binders, straw mulch, or erosion control blankets;

    - Temporary sediment control measures, such as silt fencing, sediment basin or trap, fiber rolls, or straw bales;

    - Wind erosion control measures;

    - Non-stormwater management practices, such as water conservation practices, dewatering operations, vehicle and equipment cleaning and fueling, and structure removal over water;

    - Waste management and materials pollution control measures, such as stockpile management, spill prevention and control, and solid and hazardous waste management.

- Pursuant to Section 13-4.03B of the Caltrans Standard Specifications, material or waste storage areas will be kept clean, well organized, and equipped with enough cleanup supplies for the material being stored. Spill and leak prevention procedures will be implemented for chemicals and hazardous substances stored in the work area. As soon as it is safe, spills of petroleum materials and sanitary and septic waste substances listed under 40 CFR, parts 110, 117, and 302, will be contained and cleaned up. Section 14-11 measures will be implemented whenever spills or leaks produce hazardous waste, which includes proper hazardous waste handling and emergency procedures in compliance with 40 Code of Federal Regulations Section 262.34(d)(5)(iii).

- Pursuant to Section 13-4.03C(3) of the Caltrans Standard Specifications, water pollution control practices will be implemented within 72 hours of stockpiling material or before a forecasted storm event, whichever occurs first. If stockpiles are being used, soil, sediment, or other debris will not be allowed to enter storm drains, open drainages, and watercourses.

- All dewatering activities will be conducted in compliance with the Caltrans *Field Guide for Construction Site Dewatering* and Section 13-4.03G of the Caltrans Standard Specifications. Measures include: ensuring that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials; discharging the water within the project limits; disposing of the water if it cannot be discharged within project limits due to site constraints or contamination; not discharging stormwater or non-stormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface; and notifying the Caltrans Engineer immediately upon discovering any such condition.

- Discovery of archaeological resources in the work area will comply with Section 14-2.02 of the Caltrans Standard Specifications. Measures include: not disturbing the resources; immediately stopping all work within a 60-foot radius of the discovery; protecting the discovery area; notifying Caltrans and the County; not moving archaeological resources or taking them from the work area; and not resuming work within the discovery area until authorized. Caltrans or the County will provide a qualified archaeologist to evaluate the resources and determine appropriate measures for protection or avoidance to ensure no significant impacts occur. The project contractor shall implement all mitigation measures recommended by the archaeologist to avoid adverse impacts to the resource. (Since, as set forth in Section 3.5, no archeological resources are expected in the project area, more specific mitigation measures cannot feasibly be developed unless and until any unforeseen resource is actually discovered and evaluated.)

- The discovery or disturbance of cultural materials or human remains will comply with California Health and Safety Code Section 7050.5, which requires that activities cease if human remains are discovered and that the County Coroner be contacted to evaluate the remains, and California Public Resources Code Sections 5097.5, which protects cultural resources, human remains, and paleontological resources from destruction on public lands (including lands under the jurisdiction of a County). The California Codes identify penalties for non-compliance.

- Pursuant to Section 14-6.04 of the Caltrans Standard Specifications, all life stages of anadromous fish in streams will be protected and work activities will be conducted to allow free passage of anadromous migratory fish. Construction work cannot produce sound in water that results in unauthorized take of listed species.

- Pursuant to Section 14-8.02 of the Caltrans Standard Specifications, noise in the work area cannot exceed 86 A-weighted decibels (dBA, Lmax) at 50 feet from the work area between 9 p.m. and 6 a.m. Equipment will be equipped with an internal combustion engine with the manufacturer-recommended muffler and will not be operated in the work area without the appropriate muffler.

- Pursuant to Section 14-9.03 of the Caltrans Standard Specifications, dust control measures will be implemented to prevent or alleviate dust by applying water, dust palliative, or both

and by covering active and inactive stockpiles. Construction activities will comply with air pollution control rules, regulations, ordinances, and statutes that apply to the project. Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration (Section 14-11.02C). A water truck or tank will be kept at the work area at all times while clearing, grubbing, and performing earthwork operations in work areas containing hazardous waste or contamination.

- Pursuant to California Vehicle Code, Section 23114, all trucks hauling soil and other loose material to and from the work area will be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).

- Pursuant to Section 14-10 of the Caltrans Standard Specifications, solid waste will be managed to prevent litter, trash, or debris accumulation anywhere in the work area, including storm drain grates, trash racks, and ditch lines. All litter, trash, and debris will be picked up from the work area at least once a week. If practicable, nonhazardous waste and excess material will be recycled; if recycling is not practicable, it will be properly disposed. All hazardous waste will be handled, stored, and disposed of in compliance with 22 California Code of Regulations, Division 4.5.

- The removal of the existing Evergreen Road Bridge will comply with Section 15-4 of the Caltrans Standard Specifications.

- All safety and health requirements set forth by the Occupational Safety and Health Administration will be followed. In addition, to prevent wildfires, the contractor would use construction equipment equipped with fire prevention devices, such as spark arrestors, pursuant to Public Resources Code 4442.

Construction Schedule

Construction associated with the proposed project will begin once CEQA and NEPA documents have been completed; final design, plans, specifications, and cost estimates have been prepared; ROW has been acquired; and all permits and other approvals from state and federal agencies have been obtained. Foundation and substructure construction would require several weeks. Modifications to roadway approaches and superstructure construction would require an additional several weeks. Restoration of the channel to pre-construction condition would take several weeks as well. Bridge removal would require approximately 3 weeks. Bridge removal, substructure, and superstructure construction activities would be confined to June 1 through November 15 to minimize or avoid potential effects to fish, water quality, and other resources, unless an extended work period is authorized by California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NMFS) (dependent upon weather conditions). Bridge construction activities occurring outside of this 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. The project is expected to be completed within two construction seasons; it is expected to begin in spring/summer of 2015 and be complete by fall 2016.

2.4 Required Permit Approvals

Based on the environmental conditions of the project area and the analysis of potential impacts provided in Chapter 3, project implementation will require compliance with the Endangered Species Act and Clean Water Act and issuance of other approvals, as listed in Table 1.

Table 1. Required Permit Approvals

Approving Agency	Required Permit/Approval	Required for
Federal Agencies		
U.S. Fish and Wildlife Service	Compliance with Section 7 of the Endangered Species Act (16 USC 1536) (informal consultation)	Potential impacts on valley elderberry longhorn beetle
National Marine Fisheries Service	Compliance with Section 7 of the Endangered Species Act (16 USC 1536) (informal consultation)	Potential impacts on listed salmonids
U.S. Army Corps of Engineers	Compliance with Nationwide Permit 14 (Section 404 of the Clean Water Act, 33 USC 1341)	Discharge of fill material into waters of the United States
State Agencies		
California Department of Transportation	Project Approval/NEPA Compliance	Funding authorization
Regional Water Quality Control Board	Coverage under the General Construction Activity Storm Water Permit (Section 402 of the Clean Water Act) Water Quality Certification (Section 401 of the Clean Water Act)	Stormwater discharges for construction activity disturbing more than 1 acre of land Discharge into waters of the United States
Department of Fish and Game	Streambed Alteration Agreement (Section 1602 of the Fish and Game Code)	Work in South Fork Cottonwood Creek
Central Valley Flood Protection Board	Approval of distance between flood elevation and bridge	Construction of a new bridge on the South Fork Cottonwood Creek
Local Agencies		
Tehama County	Project Approval/CEQA Compliance	Project implementation and funding
Tehama County Air Pollution Control District	Compliance with Air District rules and regulations	Dust and air emissions generated during construction

Chapter 3 - Environmental Checklist

Project Information	
1. Project Title:	Evergreen Road at South Fork Cottonwood Creek Bridge Project
2. Lead Agency Name and Address:	Tehama County 9380 San Benito Avenue Gerber, CA 96035
3. Contact Person and Phone Number:	Kevin Rosser, Civil Engineer (530) 385-1462, ext. 3051
4. Project Location:	Evergreen Road, from its intersection with Bowman Road to about 1 mile north; 3 miles west of Interstate 5 in northern Tehama County, California
5. Project Sponsor's Name and Address:	Tehama County Public Works 9380 San Benito Avenue Gerber, CA 96035
6. General Plan Designation:	Valley Floor Agriculture
7. Land Use:	Grazing
8. Description of Project:	
The County is proposing to realign approximately 0.8 mile of Evergreen Road, construct a new bridge along the road across the South Fork Cottonwood Creek, remove the existing bridge, excavate along the creek to widen the floodplain, install a left turn lane on Bowman Road at Evergreen Road, replace in-situ the ACID canal crossing, and modify the ACID pipeline under Evergreen Road.	
9. Surrounding Land Uses and Setting:	Grazing/pasture lands and rural residences; the South Fork Cottonwood Creek provides open space along the creek and riparian corridor
10. Other Public Agencies Whose Approval is Required:	USFWS, USACE, NMFS, RWQCB, CDFG, Tehama County APCD, Caltrans, Central Valley Flood Protection Board

Environmental Factors Potentially Affected

This Initial Study has determined that in the absence of mitigation the proposed project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

☐ Aesthetics	☐ Hazards and Hazardous Materials	☐ Population and Housing
☐ Agriculture and Forestry Resources	☒ Hydrology and Water Quality	☐ Public Services
☒ Air Quality	☐ Land Use/Planning	☐ Recreation
☒ Biological Resources	☐ Mineral Resources	☐ Transportation/Traffic
☐ Cultural Resources	☐ Land Use/Planning	☐ Utilities
☐ Geology and Soils	☐ Mineral Resources	☒ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions	☒ Noise	

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 proposed 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
Printed Name	Title
Agency	

3.1 Aesthetics

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

Environmental Setting

Tehama County's rolling hills, wide elevation range, and diverse environments contribute to its scenic quality. Four state highways have been classified as County scenic highways in the General Plan, but none are designated as state scenic highways (Tehama County 2009a). None of these highways are located near the project area. The South Fork Cottonwood Creek and adjacent riparian vegetation are prominent visual features in the project area, and the surrounding agricultural fields provide open space along Evergreen Road and contribute to the rural character of the area. Scattered rural residences exist throughout the area. Distant views of rolling hills and mountains are available from the project area. Existing sources of light in the project area are associated with the few residences along Evergreen and Bowman roads. Water in the creek provides a natural source of glare.

Impacts

a, b) ***No Impacts.*** No scenic vistas or scenic resources associated with designated scenic highways are located in or near the project area.

c) ***Less than Significant Impact***. The proposed project would result in physical changes to the visual characteristics of Evergreen and Bowman roads, Evergreen Road Bridge, and the adjacent areas. The new bridge would be visually similar to the existing bridge, but it would be wider and longer and would be aligned just south of the existing bridge. Road improvements would also shift Evergreen Road to connect to the new bridge and reduce the severity of curves. The project would involve some vegetation removal along the creek and new road alignment, including oak trees and riparian vegetation. Most of the road realignment would affect grasslands and pasture land. The area associated with the existing road (where it is removed) and bridge would be

recontoured to blend in with the surrounding setting once the new bridge and roadway modifications are complete. The modified ACID pipeline would be underground, and the ACID culvert would be beneath the new roadway. The new bridge and modified roadway would have a less than significant impact on the visual character of the area.

Construction activities would result in temporary visual impacts due to the presence of equipment in the project area, vegetation removal, excavation, and other activities, but these activities would be fairly isolated and visible only to motorists along Evergreen Road and Bowman Road, to a lesser extent, and residents in nearby homes. These temporary effects on the visual character of the area would be less than significant.

d) ***Less than Significant Impact.*** The proposed project would not create a permanent, new source of light or glare. The new bridge, signs, and reflectors would be visually similar to the existing bridge. Construction activities would include the use of equipment and staging of materials, which could create a temporary source of glare in the project area. These activities would not substantially affect travelers along nearby roads. Construction activities would be scheduled during daytime hours, to the extent practicable. Light and glare impacts would be less than significant.

Mitigation Measures

None required.

3.2 Agriculture and Forestry Resources

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The project area contains prime, statewide important, and locally important farmland and is actively used for grazing (California Department of Conservation 2008; see Figure 3 in Appendix A). The County General Plan land use designation of the project area is valley floor agriculture (Tehama County 2009a), and most of land is zoned for agricultural uses. The locally important farmland on the north side of Evergreen Road, east of the South Fork Cottonwood Creek is under a Williamson Act contract; the adjacent land outside of the project area is also under a contract and is designated prime farmland (California Department of Conservation 2008, 2009). Evergreen Road provides a primary access route to the adjacent agricultural lands. No timber or forest land is found in the project area.

Impacts

a) ***Less than Significant Impact.*** The new road alignment would result in the conversion of prime farmland and farmland of local importance to non-agricultural use (a road). Approximately 4.5 acres of prime farmland, which is currently used for pasture, and 2.7 acres of locally important farmland, a portion of which (0.8 acre) is currently used for pasture, would become part of the ROW associated with the new road alignment; a portion of this farmland would be converted to road. The loss of up to 4.5 acres of prime farmland in Tehama County would be minimal (<0.0001%) compared with the total acreage of prime farmland across the county (62,174 acres). The loss of up to 2.7 acres of locally important farmland would also be minimal (<0.0001%) compared with the total acreage of locally important farmland in the county (132,547 acres). Removal of portions of the realigned segment of the existing road would provide opportunity to restore vegetation consistent with the adjacent uses (i.e., pasture, grasslands). Extensive pasture lands exist throughout the area, and the loss of pasture land would be minimal and less than significant. Although the pasture land is considered important farmland, the loss of important farmland in the county would be minimal and partially offset by restoration of segments of the existing road, which may be converted to agricultural uses consistent with the adjacent uses. Impacts on important farmland would be less than significant.

Modification of the ACID pipeline would involve temporary disturbance to important farmland (prime), but the pipeline would be underground and agricultural uses would continue following construction. The current use of the land is grazing, and a

temporary disturbance would have a minimal and less-than-significant impact on the agricultural use.

b) ***Less than Significant Impact.*** The new road alignment on the east side of the bridge would cross land under a Williamson Act contract. Although most of the contracted land is used for pasture, the portion in the project area is isolated and not currently used for agricultural purposes. It is dominated by grasses and is separated from the pasture land by a row of trees, barn, and residence. Because of the isolated nature of the contracted land in the project area, the modified road would not conflict with any existing agricultural use of the land or interfere with the continued agricultural use of the adjacent land. The amount of land needed for the new ROW is minimal (both in terms of absolute acreage and percentage of the Williamson Act contracted land in the area). Further, portions of the old ROW will no longer be needed for road purposes and may eventually be returned to agricultural use, thereby reducing the (already minimal) loss of agricultural land. The modified road would also not conflict with the agricultural zoning of the land. For all of these reasons, these impacts would be less than significant.

c–e) ***No Impacts.*** No forest land is present in the project area, and the proposed project would not result in conversion of forest land to a non-forest use. No indirect conversion of farmland is expected; adjacent farmland would continue to be managed for the same uses.

Mitigation Measures

None required.

3.3 Air Quality

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute 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?	☐	☐	☒	☐

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The project area is in the Northern Sacramento Valley Air Basin, and air quality in the county is regulated by the Tehama County Air Pollution Control District (APCD). The APCD regulates air quality through the federal and state Clean Air Acts, district rules, and its permit authority. The 2009 Triennial Air Quality Attainment Plan for the Northern Sacramento Valley Planning Area guides air quality management in the county (Sacramento Valley Air Quality Engineering and Enforcement Professionals 2009). The APCD also prepared a Planning and Permitting Handbook to guide analyses in CEQA documents (Tehama County Air Pollution Control District 2009). The handbook identifies the following thresholds for air quality emissions (Level A projects):

- Inhalable Particulate Matter (PM10): less than 80 pounds per day
- Reactive Organic Gases (ROG): less than 25 pounds per day
- Nitrogen Oxides (NOx): less than 25 pounds per day

National and state ambient air quality standards have been adopted by the U.S. Environmental Protection Agency (EPA) and State of California, respectively, for each criteria pollutant: ozone, particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide (Table 2). Based on the ambient air quality, the EPA and State (California Air Resources Board or CARB) designate regions as “attainment” (within standards) or “nonattainment” (exceeds standards). Tehama County is classified as nonattainment for state ozone and particulate matter (PM10) standards and is in attainment or unclassified for other state standards and all federal standards (CARB 2012a).

Air pollutants from the Sacramento region to the south affect air quality in the Northern Sacramento Valley and are a source of the occasional violations of state standards. Air quality monitoring in Anderson, northeast of the project area, did not report any violations of state or federal air quality standards in 2011, but air quality monitoring in Red Bluff, southeast of the project area, reported two exceedances of the state ozone standard and one exceedance of the federal PM2.5 standard (CARB 2011).

Few sources of air pollutants exist in the project area; these include motor vehicles, agricultural operations, and typical residential activities. The nearest urban area is Anderson, approximately 6 miles northeast in Shasta County; Red Bluff is located 13 miles southeast. Sensitive receptors in and near the project area include residences along Evergreen and Bowman roads. Four residences are present along Evergreen Road near the project area; one residence is present on the west side of a pasture in the project area; and a concentration of about eight residences is present just south of the intersection of Bowman Road and Evergreen Road.

Table 2. National and State Air Quality Standards

Pollutant	Averaging Time	Federal Standard	State Standard	Federal Standard Type
CO	8-hour [a]	9 ppm (10 mg/m3)	Same as federal	Primary
	1-hour [a]	35 ppm (40 mg/m3)	20 ppm (23 mg/m3)	Primary
NO2	Annual Arithmetic Mean	0.053 ppm (100 µg/m3)	0.030 ppm (57 µg/m3)	Primary and Secondary
	1-hour	0.1 ppm	0.18 ppm (339 µg/m3)	Primary
O3	8-hour [b]	0.075 ppm (147 µg/m3)	0.070 ppm (137 µg/m3)	Primary and Secondary
	1-hour [c]	-	0.09 ppm (180 µg/m3)	Primary and Secondary
Pb	Rolling 3-month average	0.15 µg/m3	-	Primary and Secondary
	30-Day	-	1.5 µg/m3	None
PM10	Annual Arithmetic Mean	-	20 µg/m3	None
	24-hour	150 µg/m3 [d]	50 µg/m3	Primary and Secondary
PM2.5	Annual Arithmetic Mean [e]	15 µg/m3	12 µg/m3	Primary and Secondary
	24-hour [f]	35 µg/m3	-	Primary and Secondary
SO2	24-hour [a]	-	0.04 ppm (105 µg/m3)	
	3-hour [a]	0.5 ppm (1,300 µg/m3)	-	Secondary
	1-hour	0.075 ppm (196 µg/m3)	0.25 ppm (655 µg/m3)	Primary

Sources: EPA 2012 and CARB 2012b

Key: ppm = parts per million; mg/m3 = milligrams per cubic meter; µg/m3 = micrograms per cubic meter; km = kilometer

Notes: Parenthetical values are approximate equivalent concentrations.

[a] Not to be exceeded more than once per year.

[b] To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.

[c] As of June 15, 2005, USEPA revoked the federal 1-hour ozone standard in all areas except the 14 8-hour ozone nonattainment Early Action Compact Areas.

[d] Not to be exceeded more than once per year on average over 3 years.

[e] To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3

[f] To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3.

Impacts

a) ***Less than Significant Impact.*** The proposed project would result in short-term, temporary air pollutant emissions from construction traffic, soil disturbance, and on-site equipment use, causing a minor increase in particulate matter (PM10 and PM2.5), ROG, and NOx for the duration of construction. Construction emissions would have a less-than-significant impact on air quality in the region because of the small disturbance

footprint (about 15 acres) and short-term construction period (two construction seasons). Improved traffic conditions on Evergreen Road as a result of the wider bridge and improved curves would be expected to increase vehicle engine efficiency and reduce vehicle emissions over the long term. The project would be consistent with 2009 Triennial Air Quality Attainment Plan for the Northern Sacramento Valley Planning Area and is not anticipated to affect air quality planning.

b) ***Less than Significant with Mitigation Incorporated.*** Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. Project construction would create short-term increases in fugitive dust and would generate both ROG and NOx emissions from vehicle and equipment operation.

Fugitive dust emissions would be greatest during the initial site preparation activities and would vary daily in response to the construction phase, level of activity, and prevailing weather conditions. Fugitive dust emissions associated with grading during construction are assumed to be less than 20 pounds per day (the default fugitive dust emission factor within the URBEMIS Model, Version 9.2.4), based on a maximum of 1.74 acres of land disturbance per day. This maximum is prior to implementation of any construction or mitigation measures to reduce dust, and measures, such as watering three times daily and maintaining low vehicle speeds on unpaved surfaces, would be implemented in accordance with Caltrans Standard Specifications and Mitigation Measure AIR-1 to reduce fugitive dust emissions below the default emission factor. Based on this assumption and emission calculations for similar project types, construction emissions would be consistent with the Level A APCD thresholds of significance of less than or equal to 25 pounds per day for NOx and ROG and less than or equal to 80 pounds per day of PM10 (i.e., project-related emissions would be less than the APCD thresholds). Construction activities could still result in visible dust and emissions from the project area and adversely affect local air quality because of the existing nonattainment status for ozone and PM10, resulting in a potentially significant impact. Implementation of Mitigation Measure AIR-1 would further reduce construction-related emissions as a result of the proposed project to a less-than-significant level.

Operational emissions for vehicles traveling across Evergreen Road Bridge would be expected to be reduced over the long term as a result of the improved traffic conditions. The proposed project by design would not increase the number of vehicle trips through the project area or increase the amount of vehicle miles traveled, but it would improve speeds along Evergreen Road by reducing the severity of curves and eliminating the stop signs on both sides of the bridge. Elimination of the two stop signs at the existing bridge would reduce engine idling times in the project area and maintain constant speeds across the bridge, thus reducing emission rates for vehicles using the road. Vehicle emissions tend to be lower during free flow traffic conditions and at speeds above 20 miles per hour (Federal Highway Administration 2006). Long-term emissions would have a less than significant impact on air quality.

c) ***Less than Significant Impact.*** As discussed under item b) above, the proposed project would result in minor construction-related emissions with a potential reduction in operational emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant, including pollutants for which Tehama County is currently in nonattainment (ozone precursors and PM10). Air quality impacts would be localized and would not be expected to adversely affect regional air quality. The temporary increase in air pollutant emissions associated with construction activities would result in less-than-significant contributions to cumulative pollutant levels in the region.

d) ***Less than Significant Impact.*** Residents along Evergreen and Bowman roads could be exposed to temporary air pollutants from construction activities, such as fugitive dust, ROG, NOx, and carbon monoxide. Particulate exhaust emissions from diesel fueled engines were identified as a toxic air contaminant (TAC) by CARB in 1998. The dose to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). The Tehama County APCD does not have current guidance on TAC emissions from mobile equipment, nor does it have a threshold of significance for exposure to emissions of diesel exhaust. Diesel particulate exhaust is highly dispersive, and measured concentrations of vehicle-related pollutants, including ultra-fine particles, decrease dramatically within approximately 300 feet of the source.

Construction activities would be temporary, lasting two construction seasons, and emissions would not be substantial. Dust control measures would be implemented during construction to minimize fugitive dust. TAC emissions would be minimal because of the temporary use of mobile equipment and rapid dissipation of the emissions. Few sensitive receptors would be exposed to the minor increase in emissions during the construction period. This impact would be less than significant.

e) ***Less than Significant Impact.*** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes and would include asphalt paving, which has a distinctive odor during application. These emissions would occur intermittently throughout the workday, and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the work area may find these odors objectionable. However, the limited number of receptors, infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in less-than-significant odor impacts.

Mitigation Measures

Mitigation Measure AIR-1: Implement dust and emissions control measures during construction activities.

The County shall ensure that the construction contractor implements the dust and emissions control measures listed below, in addition to the construction measures described as part of the proposed project, and complies with the Tehama County APCD rules and regulations. The

APCD is currently in the process of adopting an Indirect Source Review Program, which will provide mitigation measures for reducing short-term air quality impacts for projects in the county. Because those measures have not yet been adopted, the measures listed below are derived from the APCD CEQA Handbook and other air district practices.

The following standard measures are identified by the APCD (2009) to reduce emissions during construction activities:

- Construction equipment shall be maintained in proper tune according to manufacturer's specifications.
- Diesel construction equipment meeting CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines shall be used.
- Construction equipment shall be registered in the CARB DOORS program (www.arb.ca.gov/msprog/ordiesel/ordiesel.htm) and meet all applicable standards for replacement or retrofit.
- All portable equipment, rated over 50 brake horse power, shall be registered in the Portable Equipment Registration Program (www.arb.ca.gov/portable/portable.htm). The owner/operator shall be responsible for arranging appropriate consultations with CARB or the APCD to determine registration and permitting requirements prior to equipment operation at the project area.

The following measures will be incorporated into a Fugitive Dust Control Plan for the project, which will be reviewed and approved by the APCD:

- Water shall be applied by means of truck(s), hoses, and/or sprinklers as needed prior to any land clearing or earth movement to minimize dust emission.
- Haul vehicles transporting soil into or out of the property shall be covered.
- Water shall be applied to disturbed areas a minimum of two times per day or more as necessary.
- All visibly dry disturbed soil surface areas of operation shall be treated with a dust palliative agent and/or watered to minimize dust emission.
- On-site vehicles shall be limited to a speed that minimizes dust emissions on unpaved roads.
- Existing roads and streets adjacent to the project area will be cleaned at least once per day unless conditions warrant a greater frequency.
- All visibly dry, disturbed unpaved roads shall be watered to minimize dust emission.
- Unpaved roads may be graveled to reduce dust emissions.
- Haul roads shall be sprayed down at the end of the work shift to form a thin crust. This application of water shall be in addition to the minimum rate of application.

- Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic, or other material may be required to further reduce dust emissions.

- Construction workers shall park in designated parking areas(s) to help reduce dust emissions.

- A publicly visible sign with the telephone number and person to contact regarding dust complaints shall be posted at the work area. The designated person shall respond to any complaints and take corrective action within 24 hours. The telephone number of the APCD shall also be visible to ensure compliance with District Rule 4:1 and 4:24 (Nuisance and Fugitive Dust Emissions).

In addition to the above measures, the Fugitive Dust Control Plan will include the following measures:

- All grading operations shall be suspended when winds carry dust beyond the property line despite implementation of all feasible dust control measures.

- The work area shall be watered as directed by the Tehama County Department of Public Works or APCD (see above) and as necessary to prevent fugitive dust violations and off-site dust impacts.

- An operational water truck shall be on-site at all times.

- On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce windblown dust emissions. Approved nontoxic soil stabilizers will be used according to manufacturer's specifications in all inactive work areas.

- All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.

- To prevent track-out, wheel washers shall be installed where project vehicles and equipment exit onto paved streets from unpaved roads. Vehicles and equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.

- Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project area.

- Temporary traffic control will be applied as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Department of Public Works and/or Caltrans, and to reduce vehicle dust emissions.

- Traffic speeds on all unpaved surfaces will be reduced to 15 miles per hour or less and access will be restricted to reduce unnecessary vehicle traffic. Appropriate training, on-site enforcement, and signage will be implemented.

- No open burning of vegetative waste (natural plant growth wastes) or other materials (trash, demolition debris et al.) may be conducted at the project area. Materials also may not be hauled off-site for disposal by open burning. Vegetative wastes shall be chipped or delivered for waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood.

Other emissions reduction measures to be implemented include:

- Vehicle and equipment idling times will be limited to 10 minutes to save fuel and reduce emissions.

- Existing power sources (e.g., power poles) or clean fuel generators will be used instead of temporary power generators.

- A comprehensive inventory list (i.e., make, model, engine year, horsepower, and emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater), including owned, leased, and subcontractor vehicles, that will be used an aggregate of 40 or more hours will be assembled for the project. This list will be submitted to the APCD with a plan that demonstrates how the heavy-duty off-road equipment will achieve a project-wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction.

3.4 Biological Resources

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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?	☐	☐	☐	☒

Environmental Setting

NSR conducted the following biological studies in support of the proposed project in 2005:

- Natural Environment Study to support Caltrans' review of the project (NSR 2005d)
- Delineation of waters of the United States, including wetlands, to support Clean Water Act Section 404 permitting with the U.S. Army Corps of Engineers (USACE) (NSR 2005c)
- California red-legged frog site assessment to support Endangered Species Act compliance and consultations with the U.S. Fish and Wildlife Service (USFWS) (NSR 2005b)
- Biological assessment for valley elderberry longhorn beetle, which included protocol-level surveys, to support Endangered Species Act compliance and consultations with the USFWS (NSR 2006)
- Biological evaluation and essential fish habitat assessment for salmonids to support Endangered Species Act compliance and consultations with the NMFS (NSR 2005a)
- Protocol-level botanical surveys to support the Natural Environment Study and CEQA analyses (NSR 2005d)

These studies covered a slightly smaller project area, and a reconnaissance-level field visit was conducted on May 30, 2012, to document changes in the project area since 2005 and collect baseline information on the expanded project area. (Copies of these studies are available for

public inspection at the Tehama County Department of Public Works at 9380 San Benito Ave., Gerber, California.)

Biological Habitats

The project area contains primarily pasture lands and riparian habitat associated with the creek (see Figure 4 in Appendix A). Valley foothill riparian habitat follows the South Fork Cottonwood Creek, and annual grasslands and pastures are present along Evergreen and Bowman roads. The perennial creek provides riverine habitat along its active channel and has silt, sand, gravel, cobble, and boulder substrates. Wetlands in the project area include riparian wetlands along the creek and seasonal wet meadows in the pastures, which are a result of irrigation practices. Riparian and riverine habitats along the South Fork Cottonwood Creek and the wetlands are considered sensitive habitats. Scattered oak trees are present in the pastures and along the roads, but no oak woodlands, which are subject to protection under the County General Plan and Voluntary Oak Woodland Management Plan, are present. An earthen irrigation ditch maintained by ACID conveys water for agricultural uses to the north of Evergreen Road in the western portion of the project area.

Annual Grassland. Annual grassland habitat is characterized by a moderate to dense herbaceous layer dominated by annual grasses and forbs. This habitat type encompasses approximately 7.8 acres along Evergreen and Bowman roads. Typical species include slender wild oat (*Avena barbata*), Italian ryegrass (*Lolium multiflorum*), annual bluegrass (*Poa annua*), common velvetgrass (*Holcus lanatus*), and rabbitfoot grass (*Polypogon monospeliensis*). Grasslands support a variety of birds, rodents, and reptiles.

Pasture Lands. Pasture lands are found adjacent to riparian habitat and along Evergreen Road, encompassing approximately 17.6 acres. The pasture west of the creek and Evergreen Road is periodically disced, which reduces habitat quality for some wildlife species. Pastures also occur adjacent to the project area on the north and east sides. Pasture is characterized by a dense herbaceous layer of perennial grasses, annual grasses, and forbs and is periodically flooded. Dominant pasture species include dallis grass (*Paspalum dilatatum*), Mediterranean barley (*Hordeum marinum var. gussoneanum*), filaree (*Erodium botrys*), Kentucky fescue (*Festuca arundinacea*), Italian ryegrass (*Lolium multiflorum*), orchard grass (*Dactylis glomerata*), and white clover (*Trifolium repens*). Agricultural lands provide similar habitat for wildlife as annual grasslands and serve as a productive food source. Seasonal wetlands (approximately 0.3 acre) are found in the agricultural lands and are considered isolated features because they do not convey surface flow to the creek. Irrigation ditches have been constructed along Evergreen Road to support agricultural uses in the vicinity and convey flow to the creek; they may fall under the jurisdiction of the USACE as waters of the United States. Some of the ditches contain wetland vegetation.

Valley Foothill Riparian. Valley foothill riparian habitat follows the South Fork Cottonwood Creek and extends about 200–250 feet along the west bank and less than 50 feet along the east bank. This habitat type encompasses approximately 5.4 acres. Vegetative cover is moderate to dense and is dominated by several tree and shrub species and various grasses and forbs. Typical tree species include Fremont cottonwood (*Populus fremontii*), sandbar willow (*Salix exigua*), and arroyo willow (*S. lasiolepis*). Additional species include blue elderberry (*Sambucus*

mexicanus), wormwood (*Artemisia douglasiana*), and California grape (*Vitis californica*). Riparian communities are among the most important habitats for wildlife because of their high floristic and structural diversity, high biomass (and therefore high food abundance), and high water availability. In addition to providing breeding, foraging, and roosting habitat for a diverse array of animals, riparian communities provide movement corridors for wildlife, connecting a variety of habitats throughout a region. The riparian habitat also provides shaded riverine aquatic habitat along the creek. A portion of the riparian habitat within 50 feet of the creek on both sides was delineated as riparian wetlands (approximately 1 acre); these wetlands fall under the jurisdiction of the USACE as waters of the United States. The entire riparian habitat corridor along the creek falls under the jurisdiction of CDFG.

Riverine. Riverine habitat within the study area is limited to the open areas associated with the active flow channel of the South Fork Cottonwood Creek. The bed of South Fork Cottonwood Creek is composed of gravel substrates. Emergent vegetation is mostly absent from the active channel of the creek, occurring only sparsely along the banks. The creek is between 80 and 200 feet wide at the ordinary high water mark and encompasses approximately 3 acres in the project area. The creek is a water of the United States and water of the State.

Special-Status Species

The habitats in the project area may support special-status species that are known to occur in the region. Special-status is defined herein as species that are (1) listed as threatened or endangered under the federal or California Endangered Species Act; (2) proposed for listing as threatened or endangered; (3) state or federal candidate species for listing as threatened or endangered; (4) designated as rare (plants), a species of special concern (wildlife), or fully protected (wildlife) by CDFG; or (5) ranked by the California Rare Plant Rank system as 1 or 2 (plants). Based on a review of the California Natural Diversity Database (CDFG 2012); Inventory of Rare, Threatened, and Endangered Plants (California Native Plant Society 2012); and USFWS (2012) list of federally listed species; and field surveys of the project area, the following special-status species may occur in the project area:

- Central Valley steelhead (*Oncorhynchus mykiss*) Evolutionarily Significant Unit (ESU), federally listed as threatened
- Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*) ESU, federally and state listed as threatened
- Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), federally listed as threatened
- Bald eagle (*Haliaeetus leucocephalus*), state listed as endangered and fully protected
- Foothill yellow-legged frog (*Rana boylii*), California species of special concern
- Western pond turtle (*Emys marmorata*), California species of special concern
- California yellow warbler (*Dendroica petechia brewsteri*), California species of special concern

- Yellow-breasted chat (*Icteria virens*), California species of special concern
- Pallid bat (*Antrozous pallidus*), California species of special concern
- Western red bat (*Lasiurus blossevillii*), California species of special concern

A comprehensive list of species that are known to occur in the region and were evaluated for their potential to occur in the project area is included in Appendix B. Species for which suitable habitat is not present in the project area, the project area is outside the species' known range, or the species was not detected in the project area during focused field surveys (applies to plants only) are not considered further. Note that presence/absence surveys for special-status wildlife species have not been conducted; however, the field surveys identified the presence of habitat that could support the wildlife listed above. Because wildlife are mobile and may be found in different areas in any given year, surveys to assess presence/absence are best conducted immediately prior to construction or over multiple years in accordance with agency protocols.

Impacts

a) ***Less than Significant with Mitigation Incorporated.*** Construction activities could adversely affect the special-status fish and wildlife species listed above, as well as nesting migratory birds, if present in or near the project area during construction. The project could also result in the loss of suitable foraging or nesting habitat for these and other species. No special-status plant species are expected to occur in the project area or be affected by the proposed project based on the results of focused plant surveys (NSR 2005d). A discussion of the anticipated impacts on each fish and wildlife species is presented below. Caltrans, as the representative federal agency, will consult with the USFWS and NMFS to comply with the Endangered Species Act. Tehama County will be responsible for obtaining applicable biological permits for the proposed project, such as a Section 404 Clean Water Act permit and Streambed Alteration Agreement.

<u>Central Valley Steelhead and Central Valley Spring-run Chinook Salmon</u>. The project has been designed to minimize effects on aquatic habitat and salmonids. In-stream construction would occur during the summer months when flows are lowest. Any work occurring outside of the June 1 through November 15 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 CDFG and NMFS based on a determination that due to weather conditions and water levels, salmonids are unlikely to be present. No in-stream diversions are expected, but pier construction and removal would involve work in the active channel of the creek. Salmonids are not likely to be present in the project area during the construction period due to the low flow and excessively warm water temperatures. Impacts on individuals are not expected during construction. In compliance with Caltrans Standard Specifications, construction activities would be implemented such that they do not impede passage of anadromous fish through the work area or result in unauthorized take of fishes due to increased noise levels in the water.

Activities in the creek for pier construction and removal and adjacent to the creek for bridge construction and removal and floodplain excavation would disturb soil and remove vegetation, which could adversely affect water quality and aquatic habitat. Excessive sedimentation in the creek has the potential to reduce habitat quality for spawning, change the composition of aquatic invertebrate populations, reduce invertebrate biomass (thus reducing food availability for aquatic fauna), and reduce the amount of interstitial spacing between bed materials that provides cover for fry and juvenile fish. Disturbance in and near the creek would be temporary and limited to summer months when salmonids are not likely to use the creek. In addition, water quality BMPs would be implemented in accordance with Caltrans Standard Specifications and the General Permit for Stormwater Discharge to minimize the potential for water quality impacts and reduce impacts on aquatic habitat during construction. The potential for hazardous materials to enter the creek and affect aquatic habitat would also be reduced through implementation of standard construction practices in accordance with Caltrans Standard Specifications. Temporary construction-related impacts on aquatic habitat would be less than significant.

The new bridge location would require removal of riparian vegetation along the creek and would reduce the amount of shaded riverine aquatic habitat at the bridge location. Removal of the existing bridge would provide an area for riparian habitat to be restored along the creek and would partially offset the loss of shaded riverine aquatic habitat. The estimated loss of riparian habitat is less than 2 acres, which is a small amount of the total habitat available along the South Fork Cottonwood Creek in the vicinity of the project area. Some of the loss would be associated with the floodplain excavation, and riparian habitat would be expected to regenerate, to some extent, in that area over time. The loss of shaded riverine aquatic habitat in the project area would not be substantial and would have a less than significant impact over the long term on special-status fishes.

Valley Elderberry Longhorn Beetle. The valley elderberry longhorn beetle is found exclusively on elderberry shrubs. Thus, protection of this species is based on protection of the elderberry shrub. The USFWS has adopted conservation guidelines for avoidance of impacts to valley elderberry longhorn beetle (USFWS 1999). Complete avoidance (i.e., no adverse effects) may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level. Avoidance of direct effects is assumed when a 20-foot (or wider) buffer (core avoidance area) is established and maintained; indirect effects can occur between about 20 and 100 feet of a shrub if ground disturbance takes place.

More than 30 elderberry shrubs exist in the project area, primarily within the riparian habitat along the creek; several of these shrubs contain exit holes that provide evidence of the presence of the beetle. An estimated seven elderberry shrubs (two of which have exit holes) fall within the new ROW alignment, and the new bridge and roadway approaches may require removal of these shrubs. Other elderberry shrubs occur along the existing road and may be subject to direct and indirect impacts from construction

activities. Table 3 depicts the estimated direct and indirect impacts on elderberry shrubs in the project area.

Table 3. Anticipated Project-Related Impacts on Elderberry Shrubs

Nature of Impact	Number of Shrubs	Number of Stems Removed
Direct Impacts (Removal expected)	7	50
Indirect Impacts (Within 100 feet of ROW)	4	n/a
Indirect Impacts (Within 100 feet of current Evergreen Road)	23	n/a
No Impacts (More than 100 feet from ROW and Evergreen Road)	0	n/a

Note: Estimated impacts on elderberry shrubs are based on surveys conducted in 2005 in a portion of the current project area and are expected to reflect current conditions.

Other effects to habitats, such as dust, erosion, sedimentation, and hazardous materials spills, could also affect the elderberry shrubs and indirectly affect the beetle. Construction measures would be implemented in accordance with Caltrans Standard Specifications and other laws to minimize the effects of dust, erosion, sedimentation, and hazardous materials spills. However, because of the need to remove elderberry shrubs and potential indirect effects on elderberry shrubs in the project area, the proposed project could result in significant impacts on the valley elderberry longhorn beetle. Implementation of Mitigation Measures BIO-1 and BIO-2 would reduce the potential for impacts on the valley elderberry longhorn beetle and compensate for the loss of habitat for the beetle to ensure impacts are less than significant. In addition, Caltrans will be responsible for consulting with the USFWS and making a determination of effects on the beetle pursuant to Section 7 of the Endangered Species Act.

Foothill Yellow-Legged Frog and Western Pond Turtle. In-stream activities, including pier construction and removal, and construction activities adjacent to the creek could directly affect foothill yellow-legged frog and western pond turtle, which may be present during construction, and could affect the species' habitat through ground disturbance, removal of vegetation, erosion, and water quality impacts. Potentially significant impacts on individuals can be avoided through implementation of Mitigation Measure BIO-3. Impacts on habitat would be minimal and would be similar to those habitat effects described for fishes. Construction measures would minimize indirect habitat impacts, and the project would result in the removal of minimal vegetation along the creek (less than 2 acres). Impacts on foothill yellow-legged frog and western pond turtle would be less than significant with implementation of Mitigation Measure BIO-3.

Special-Status and Migratory Birds. Construction activities would overlap with the nesting season for special-status and migratory birds (February 15 to September 30).

Vegetation removal and disturbance near active nest sites could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Loss of fertile eggs or any activities resulting in nest abandonment may adversely affect the species. Bridge removal could remove active swallow nests; evidence of previously occupied cliff swallow nests, which may also be used by black phoebe and other birds or bats, was observed on the underside of the existing bridge. In addition, removal of riparian habitat may decrease the amount of suitable nesting and roosting habitat in the project area, and removal of pastures and grasslands may decrease the amount of suitable foraging habitat in the project area. Similar habitats are abundant in the area, and the project would result in a minimal loss of these habitats (less than 2 acres of riparian habitat and less than 5 acres of pastures and grasslands). The area associated with the existing road and bridge would be recontoured to blend in with the surrounding setting once the new bridge and roadway modifications are complete. Because of the potential for disturbance to nesting birds during construction, the proposed project could result in significant impacts on special-status and migratory birds. Implementation of Mitigation Measure BIO-3 would avoid impacts to nesting birds and ensure impacts are less than significant.

Special-Status Bats. Similar to nesting birds, construction activities could disturb roosting special-status bats and affect foraging and roosting habitat for special-status bats. Bridge construction and road realignment would require removal of large trees, which could contain cavities and result in the direct loss of bat colonies. Bridge removal could remove roosting habitat for bats. The direct loss of individuals in a hibernaculum could eliminate an entire colony due to the loss of pregnant females. The proposed project could result in significant impacts on special-status bats. Implementation of Mitigation Measure BIO-3 would avoid impacts to roosting bats and ensure impacts are less than significant.

b) ***Less than Significant with Mitigation Incorporated.*** Bridge construction and excavation of the floodplain would result in the removal of valley foothill riparian habitat along the South Fork Cottonwood Creek. The estimated loss of riparian habitat is less than 2 acres, which is minimal compared with the extensive amount of riparian habitat along the creek upstream and downstream of the project area. Removal of the existing bridge would provide an opportunity for riparian habitat to be restored along the creek and minimize the net loss of riparian habitat. However, the project has potential to result in a net loss of riparian habitat, which would be a significant impact. Mitigation Measure BIO-4 would be implemented to minimize impacts to sensitive habitats and compensate for the impacts on riparian wetlands. The impacts on the riparian corridor would likely be subject to a Streambed Alteration Agreement with the CDFG, and the County would be required to comply with all terms of that agreement. Impacts on riparian habitat would be less than significant with mitigation.

c) ***Less than Significant with Mitigation Incorporated.*** Bridge construction and excavation associated with widening the floodplain near the bridge would result in the loss of approximately 0.37 acre of riparian wetlands along the creek. The riparian wetlands fall under the jurisdiction of the USACE as waters of the United States, and

the entire valley foothill riparian habitat falls under the jurisdiction of the CDFG (see item b) above). Pier and abutment construction would result in the permanent placement of fill (concrete) for the footings into less than 0.01 acre of waters of the United States (South Fork Cottonwood Creek), depending on the amount of fill placed below the ordinary high water mark. Temporary falsework may be placed below the ordinary high water mark of the creek, but outside the active channel, during the summer months to assist with bridge construction. No other facilities are expected to be placed within the jurisdictional limits of the creek. Bridge removal would result in disturbance to less than 0.1 acre of South Fork Cottonwood Creek, although most activities would take place along the shore during low water levels. The area associated with the existing road and bridge would be recontoured to blend in with the surrounding setting once the new bridge and roadway modifications are complete. Modification of the ACID pipeline could result in disturbance to the ACID irrigation ditch, which may contain wetland vegetation. This impact would be minimal (less than 0.01 acre), and the vegetation would likely restore naturally in the ditch following construction.

Construction measures would be implemented to minimize water quality impacts on the creek, and the loss of wetlands would be minimized. Activities in the South Fork Cottonwood Creek would be subject to a Section 404 Clean Water Act permit from the USACE, a Section 401 water quality certification from the RWQCB, and likely a Streambed Alteration Agreement with the CDFG, and the County would be required to comply with all terms of these permits. In support of the permit applications, the County would submit the delineation of waters of the United States to the USACE for verification, and actual impacts on waters of the United States would be calculated in the permit application based on the verified delineation and final project design. Because of the impacts to riparian wetlands, the project would result in a potentially significant impact, and Mitigation Measure BIO-4 would be implemented to minimize impacts to wetlands and other waters and compensate for the impacts on riparian wetlands to achieve no net loss of wetlands. Impacts on jurisdictional waters and wetlands would be less than significant with mitigation.

d) ***Less than Significant.*** The proposed project would realign Evergreen Road and relocate the Evergreen Road Bridge to a point just upstream of the existing bridge. The new bridge and road modifications would function the same as the existing road and bridge with regard to fish and wildlife movement corridors. The new bridge would have four sections compared with the existing bridge's five spans and would have fewer piers in the floodplain. The bridge would not obstruct fish movement along South Fork Cottonwood Creek, and the road would not obstruct wildlife movement through the project area. Pier construction in the creek could temporarily disturb fish in the creek and force them to use other portions of the creek as they pass through the project area, but movement would not be completely obstructed through the project area during construction (no diversions would be necessary). Impacts on fish and wildlife movement corridors would be less than significant.

e) ***No Impact.*** The proposed project would not affect oak woodlands and would not conflict with County policies or programs protecting oak woodlands. The proposed

project would be consistent with the Tehama County General Plan policies for protecting biological resources.

f) ***No Impact.*** No habitat conservation plans have been approved for the project area.

Mitigation Measures

Mitigation Measure BIO-1: Implement measures to avoid disturbance to elderberry shrubs during construction.

The County shall require the construction contractor to implement the measures identified below during construction to avoid and minimize impacts on all elderberry shrubs that will be protected in place in the project area (i.e., those that will not be directly affected and require transplanting or removal as identified in Table 3). These measures may be made more specific during consultation with the USFWS (but will not be made less stringent), and any more stringent measures required by the USFWS will supersede measures identified below.

- A worker awareness training program for construction personnel shall be conducted by a qualified biologist prior to beginning construction activities. The program shall inform all construction personnel about the life history and status of the beetle, requirements to avoid damaging the elderberry plants, and the possible penalties for not complying with these requirements. Written documentation of the training shall be submitted to the USFWS within 30 days of its completion.

- All areas to be avoided during construction activities, specifically the 100-foot buffer zone around elderberry shrubs that can be completely avoided during construction, shall be fenced and flagged. For elderberry shrubs that cannot be completely avoided and where encroachment on the 100-foot buffer has been approved by the USFWS, high visibility orange fencing and/or k-rails shall be placed at the greatest possible distance from the shrubs, but not less than 20 feet.

- Signage shall be erected every 50 feet along the edge of avoidance areas with the following information: "This area is habitat of the valley elderberry longhorn beetle, a federally 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 signage shall be clearly readable from a distance of 20 feet and shall be maintained for the duration of construction.

- Pre-construction and post-construction surveys shall be completed for the elderberry shrubs in the project area. Pre-construction surveys shall document compliance with mitigation measures. The post-construction survey shall verify that no additional impacts to any of the elderberry shrubs took place.

- Temporary construction impacts within the buffer area (area within 100 feet of elderberry shrubs) shall be restored. If any portion of the buffer area is temporarily disturbed during construction, it shall be revegetated with native plants and erosion control shall be provided. Buffer areas shall continue to be protected after construction from adverse effects of the project. The Tehama County Public Works Department shall retain a qualified biologist to

prepare a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed and submit it to the USFWS. Measures such as fencing, signs, weeding, and trash removal shall be implemented as appropriate.

- No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level. All drainage water during and following construction shall be diverted away from the elderberry shrubs.

- Mowing of grass can occur between July through April to reduce fire hazard; however, no mowing should occur within 5 feet of elderberry shrub stems. Mowing shall be conducted in such a manner that avoids damaging shrubs.

- Dirt roadways and other areas of disturbed bare ground within 100 feet of elderberry shrubs shall be watered at least twice a day to minimize dust.

Mitigation Measure BIO-2: Implement measures to transplant or compensate for removed elderberry shrubs.

Tehama County shall compensate for the loss of elderberry shrubs as a result of the proposed project in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999) and either transplant removed shrubs to a location acceptable to the USFWS or provide payment into a conservation bank for elderberry shrubs. The specific compensation requirement will be identified during Caltrans' consultation with the USFWS and will depend on the actual number of elderberry shrubs and stems removed during construction (seven known shrubs fall within the ROW and may require removal, depending on the specific road alignment within the ROW). All elderberry shrubs that must be removed will be fully compensated for through transplanting or payment into a conservation bank, as outlined below.

If transplanting of any elderberry shrubs is approved by the USFWS, the transplantation guidelines outlined in the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* that dictate the necessary timing and details of the transplanting will be followed. At the discretion of USFWS, shrubs that are unlikely to survive transplantation because of poor condition or location or that would be extremely difficult to move because of access problems may be exempted from transplantation; these would require replacement at a conservation bank. The following measures will be adhered to during transplanting activities:

- Elderberry shrubs shall be transplanted during the dormant season, approximately November through the first two weeks in February, after they have lost their leaves. Any elderberry shrubs that cannot be transplanted prior to February 15 will be transplanted prior to March 15 or after June 15 to avoid working within the flight season for the valley elderberry longhorn beetle. No elderberry shrubs will be transplanted between March 15 and June 15.

- A qualified biological monitor must be on-site for the duration of the transplanting of the elderberry shrubs to insure that no unauthorized take of the beetle occurs. The monitor will immediately report any unauthorized take of the beetle or its habitat to the USFWS.

- The following transplanting procedures will be followed:

    - The plant will be cut back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. Any leaves remaining on the plant will be removed. The trunk and all stems measuring 1 inch or greater in diameter at ground level will be replanted.

    - The plant will be excavated using a Vermeer™ spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and will be replanted immediately at the conservation area. The plant will only be moved by the root ball. The root ball will be secured with wire and wrapped with damp burlap. The burlap will be dampened as necessary to keep the root ball wet. Care will be taken to ensure that the soil is not dislodged from around the roots of the transplant. Soil at the transplant site will be moistened prior to transplant if the soil at the site does not contain adequate moisture.

    - A hole will be excavated of adequate size to receive the transplant.

    - The planting area will be at least 1,800 square feet for each elderberry transplant. The root ball will be planted so that its top is level with the existing ground. Soil will be compacted sufficiently so that settlement does not occur. As many as five additional elderberry plantings (cuttings or seedlings) and up to five associated native species plantings may also be planted within the 1,800 square foot area with the transplant. The transplant and each new planting will have its own watering basin measuring at least 3 feet in diameter. Watering basins should have a continuous berm measuring approximately 8 inches wide at the base and 6 inches high.

    - Soil will be saturated with water. Fertilizers or other supplements will not be used; the effects of these compounds on the beetle are unknown. Shrubs will be monitored and watered as necessary. The use of a drip watering system, water truck, or other apparatus may be used.

    - A mix of native plants associated with the elderberry shrubs in the project area or similar sites will be planted at a 1:1 ratio. Native plant stock will be obtained from local sources.

For elderberry shrubs that cannot be transplanted or if transplanting is not the desired course of action by the USFWS, the County will replace affected elderberry shrubs at a conservation bank or area using replacement ratios established by the USFWS (1999). Each elderberry stem measuring 1 inch or greater in diameter at ground level that is directly affected by the proposed project would be replaced in a designated conservation area with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). The numbers of elderberry seedlings/cuttings and associated riparian native trees/shrubs to be planted as replacement habitat are determined by stem size class of affected elderberry shrubs, presence or absence of exit holes, and whether the shrub lies in a riparian or non-riparian area. Based on currently available information, proposed replacement plantings are identified in Table 4 below.

Stock of seedlings or cuttings would be obtained from local sources and may be obtained from the affected plants if the selected conservation area is near the project area.

Table 4. Proposed Replacement Ratios for Removed Elderberry Shrubs

Stem Diameter at Ground Level	Number of Stems Removed	Replacement Elderberry Shrubs	Associated Native Plants (per shrub)
1" to 3"	32	64	64
3" to 5"	12	24	24
Greater than 5"	6	24	24
Totals	**50**	**112**	**112**

Note: Estimate of number of stems removed is based on surveys conducted in 2005 and is expected to reflect current conditions. Proposed ratios are 2:1 for number of stems less than 5" removed to number of elderberry shrubs replanted and 4:1 for number of stems greater than 5" removed to number of elderberry shrubs replanted. Associated native plants are planted at 1:1 per number of elderberry shrubs replanted.

Mitigation Measure BIO-3: Implement pre-construction surveys and avoidance measures for other special-status wildlife.

Tehama County shall retain a qualified biologist to conduct pre-construction surveys for special-status wildlife in and adjacent to the project area within 2 weeks prior to the onset of construction activities, as described below. The contractor will protect migratory birds, their occupied nests, and their eggs in accordance with the Migratory Bird Treaty Act and adhere to all other state and federal laws and regulations pertaining to the protection of migratory birds, raptors, amphibians, reptiles, and bats. Nesting for most birds is between February 15 and September 30, or as determined appropriate in consultation with the County biologist.

- Surveys for **foothill yellow-legged frog** will be conducted along South Fork Cottonwood Creek within the proposed work area and in adjacent riparian habitat. If larvae or eggs are found, the biologist shall relocate them to a suitable location outside of the construction corridor. If foothill yellow-legged frogs are detected, a biological monitor will be assigned to monitor all activities in the creek and adjacent riparian habitat. Construction activities will not be allowed to take place within 100 feet of the frog(s) until the frog(s) have left the work area. CDFG will be informed of the presence of foothill yellow-legged frog(s) in the project area.

- Surveys for **western pond turtle** will be conducted along the creek and within about 1,400 feet of the creek to locate nest sites and turtles. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey, the project area will be resurveyed. If a western pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid disturbing the nest. If the nest cannot be avoided, it will be excavated and reburied at a suitable location outside of the work area by a qualified biologist. If a western pond turtle is found, a biological monitor

will be assigned to monitor all activities in the creek and within 1,400 feet of the creek to ensure the turtle is not disturbed during construction. Work will not be allowed within 100 feet of the turtle, and the biological monitor will notify the contractor when work can commence in the area where the turtle was found (i.e., once the turtle has left the area). CDFG will be informed of the presence of western pond turtle(s) in the project area.

- Surveys for **nesting raptors and migratory birds** will be conducted in all trees in and within 500 feet of the project area to locate active bird nests during the nesting season (February 15 and September 30). If no active nests are found, then no further action is warranted. If an active nest is found, the biologist will establish a construction-free buffer zone around the nest, extending about 50 to 100 feet from the nest, depending on the species, in consultation with the CDFG. The construction-free zone will be designated with orange construction fencing or another suitable barrier or marker approved by CDFG and labeled with signs to inform workers of the protected area. A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. A nest shall only be removed after the young have fledged (based on field verification by the qualified biologist). Information on the locations of nest sites shall be submitted to CDFG. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey and are scheduled during the nesting season, the project area will be resurveyed.

- For **cliff swallow** nesting activity, all existing unoccupied swallow nests on the existing bridge will be removed and exclusionary netting will be installed around the underside of the existing bridge before February 15 of the construction year to prevent new nests from being formed and prevent the reoccupation of existing nests. The design of the exclusionary netting shall be submitted to the County for approval prior to installation. The contractor shall keep a list of all areas, including the bridge, that are free of swallow nests until notified by the County Contract Manager to cease swallow activities. The bridge will be monitored for swallow activity a minimum of three non-consecutive days per week. A weekly log will be submitted to the Caltrans responsible biologist. The contractor will continue inspections until notified by the County Contract Manager to stop inspections. If an exclusion device is found to be ineffective or defective, the contractor will complete repairs to the device within 24 hours. If birds are found trapped in an exclusion device, the biologist will immediately remove the birds in accordance with USFWS or CDFG guidelines.

- Surveys for **roosting bats** will be conducted in potential roost trees in the ROW prior to the onset of construction. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey, the project area will be resurveyed. If no active roosts are found, then no further action is warranted. If an active maternity roost is present, a qualified biologist shall determine the extent of a construction-free zone to be established around the roost, extending about 50 to 100 feet from the roost. The construction-free zone will be fenced or marked, as described for the active nests, and construction near the roost will not be allowed until a qualified biologist determines that the bats have left the roost or the maternity roosting season is over (after July 31). CDFG will also be notified of any active nurseries in the construction zone. The exclusionary netting

for swallow nests is expected to also preclude roosting by bats along the existing bridge. If a maternity roost or hibernacula are present in trees proposed to be removed, the following mitigation measures shall be implemented:

- The project shall be redesigned to avoid the loss of the occupied structure if feasible.
- If the project cannot be redesigned to avoid removal of the occupied structure, demolition shall commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). The disturbance-free buffer zones will be observed during the maternity roost season (March 1–July 31).
- If a non-breeding bat hibernaculum is found in a tree scheduled to be razed, the individuals shall be safely evicted, under the direction of a qualified biologist, by opening the roosting area to allow air flow through the cavity. Demolition shall then follow no less than the following day (i.e., there should be no less than one night between initial disturbance for air flow and the demolition). This action shall allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours.

- For any active bird nest or bat roost sites encountered, the biologist shall coordinate with the CDFG, USFWS, and County, as appropriate, to establish an appropriately sized, no-disturbance buffer around the site (e.g., 50 to 100 feet around the nest or site). No construction activities will be allowed within the buffer until the biologist determines that the site is no longer active, as described above for the nesting raptors/migratory birds and roosting bats measures.
- Construction personnel shall participate in a worker environmental awareness program for special-status wildlife. A qualified biologist will inform all construction personnel about the diagnostic characteristics of special-status wildlife with potential to occur in the project area and where they may be found in the project area, as well as explain the state and federal laws pertaining to protecting the species and their habitats and the consequences of not complying with the laws.
- If any special-status wildlife species are encountered during construction activities, the activity will stop in the vicinity of the individual(s) until it has safely moved outside of the work area. Any trapped, injured, or killed wildlife shall be reported immediately to the CDFG.

Mitigation Measure BIO-4: Minimize and compensate for impacts to riparian habitat and wetlands as a result of project implementation.

Tehama County shall obtain all required permits and authorizations from the USACE, RWQCB, and the CDFG prior to any direct impacts to the riparian wetlands, riparian habitat, or South Fork Cottonwood Creek and ensure that all terms and conditions of the required permits and

authorizations are met. The following avoidance and minimization efforts will be incorporated into the proposed project to reduce impacts to South Fork Cottonwood Creek and the riparian wetlands and habitat:

- Clearing within the project area will be confined to the smallest area necessary within 200 feet of the creek to facilitate construction activities. To ensure that construction equipment and personnel do not affect sensitive habitats outside of the project area, orange barrier fencing will be erected to clearly define the edges of the work area and delineate the environmentally sensitive areas adjacent to the work area. Fencing shall be adequately maintained throughout the duration of construction and shall be removed upon completion of construction activities.

- Shaded riverine aquatic habitat or natural woody riparian habitat shall be avoided or preserved to the maximum extent practicable. Any temporarily disturbed riparian vegetation shall be replanted with native trees and shrubs, with appropriate irrigation, care, and monitoring to ensure that healthy riparian and shaded riverine aquatic habitat is fully established. Successful replanting is measured as 100 percent or greater replacement of original habitat function after three years.

- Emergent (rising out of water) and submergent (covered by water) vegetation will be retained where feasible. Rapidly sprouting plants, such as willows, shall be cut off at ground level and root systems left intact, when removal is necessary.

- Water quality construction measures and BMPs shall be implemented to protect water quality in the creek, as described for the proposed project and in Mitigation Measure WQ-1.

Once the delineation of waters of the United States is verified by the USACE, the total amount of riparian wetlands and other waters affected by the project will be calculated. Based on the total acreage of waters of the United States affected by the project, the County shall implement the following measures:

- Any riparian wetlands and other waters temporarily disturbed by construction activities shall be restored, as close as practicable, to pre-construction contours and conditions. Natural regeneration of vegetation may be allowed along the creek in lieu of on-site plantings, if plantings are determined to not be feasible in the affected area.

- Any permanent loss of riparian wetlands shall be offset by purchasing credits (1:1 acreage ratio) at a USACE-approved mitigation bank or by payment of in-lieu fees to a USACE-approved in-lieu fee program (according to current fee schedule). Documentation of payment shall be submitted to the USACE.

Once the final design plans are available, the County will calculate the total permanent effects to riparian habitat (CDFG jurisdiction, extends beyond the riparian wetlands) and calculate the on-site area available to restore riparian habitat in the former location of the bridge or other temporarily disturbed areas. The County shall develop and implement a revegetation plan to identify the extent of on-site restoration or off-site restoration via mitigation banks or in-lieu fee programs, describe planting techniques and location, and discuss monitoring strategies.

Riparian habitat shall be replaced at a ratio of 3:1 (per mature, woody riparian tree with a dbh of six inches or greater). The performance goal for tree replacement would be the successful establishment of at least one tree for each tree removed at five years after planting. Replacement trees (e.g., Fremont cottonwood, willows, blue elderberry) shall be planted in the appropriate season (i.e., fall or spring) following the completion of construction. For on-site restoration, propagules (i.e., tree seedlings) shall be obtained either on-site or from a local nursery and planted along South Fork Cottonwood Creek within the project area. The County shall monitor the plantings annually for no less than five years to ensure that trees have become established. Supplemental planting shall be conducted, as necessary, to ensure that the performance standard is achieved. Once riparian mitigation has been successfully completed, the County shall submit a memorandum to the CDFG documenting the results.

3.5 Cultural Resources

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as identified in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 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?	☐	☐	☒	☐

Environmental Setting

Ethnographic and Historic-Period Context

The project area is within former territory of the Hill Nomlaki ethnolinguistic group, which occupied the foothill region at the western margin of the Sacramento River valley (Goldschmidt 1951, 1978). Traditional Nomlaki lived in various size villages or settlements and followed a semi-sedentary life with permanent winter villages and spring and summer camps for resource gathering (Moratto et al. 1994). Nomlaki people traded wealth resources, such as clamshell disk beads, tubular magnesite beads, and bear skins, within their villages and traded other resources, such as acorns, seeds, and other vegetable items, with the River Nomlaki, who inhabited the Sacramento River valley (Goldschmidt 1951).

Tehama County was formed in 1856 and modified in 1859 to encompass the South Fork Cottonwood Creek, where the project area lies (Coy 1973). Settlements during the 1800s were

established by land grants and to support farming and ranching practices in the region (JRP Historical Consulting 2005). Red Bluff became the county seat and an important commercial town because of its location on the Sacramento River. Cattle and sheep ranches were prominent in the late 1800s and continue to be a major part of the economy of the county. Irrigation canals and ditches were constructed in the 1900s to convey water from the creeks and river to agricultural fields. The transportation network of the county was improved during the latter half of the 1800s and included river navigation, a road network, stage lines, and the Central Pacific Railroad.

Investigation Results

Far Western Anthropological Research Group (2006) and JRP Historical Consulting (2005) conducted archaeological and historic investigations for the proposed project in 2005. No cultural resources were found during field surveys or an extended phase I investigation. No historical resources were previously documented in or within 0.25-mile of the project area. Two resources built in the early to mid 1900s exist in the project area: the Evergreen Road Bridge (08C-0008) and a segment of the ACID Main Canal. Neither of these resources is considered a historical resource under CEQA.

Caltrans evaluated the Evergreen Road Bridge as part of the statewide historic bridge inventory update between 2002 and 2004 and found it to be ineligible for listing in the National Register of Historic Places (Category 5). The bridge is a typical example of a common type of bridge.

The section of the ACID Main Canal in the project area is a portion of a 48-inch diameter concrete siphon that crosses under the South Fork Cottonwood Creek and Evergreen Road in a southeast direction. The siphon was constructed in 1918 and has retained a high degree of historic integrity; however, it is not unique and does not appear to be historically significant based on JRP's evaluation.

Impacts

a, b) ***Less than Significant Impact.*** The proposed project would not affect any known historical resources. The existing bridge is not considered eligible, and the segment of the ACID Main Canal does not appear eligible and would be minimally disturbed by the project during connection of the modified ACID pipeline segment near the west end of Evergreen Road in the project area. Because of the history of the area, ground disturbing activities have potential to disturb previously undiscovered cultural resources, which may be considered historical resources. Compliance with Caltrans Standard Specifications and California Codes described for the proposed project would ensure any cultural resources discovered during construction are protected and properly evaluated. Discovered resources would be avoided or recovered, at the discretion of the Caltrans archaeologist, if they are considered historical resources. With the project's construction measures, impacts on historical resources would be less than significant.

c) ***Less than Significant Impact.*** The proposed project is not expected to affect paleontological resources, such as vertebrate fossils, because the underlying geologic units are Quaternary-age alluvium from the recent era (Strand 1969). Excavation

activities would be unlikely to encounter significant paleontological resources, and construction measures would protect any discovered resources by halting activities in the vicinity of the discovery and notifying appropriate agencies, similar to discoveries of cultural resources. With the project's construction measures and the low potential for paleontological resources to be found in alluvium, impacts on paleontological resources would be less than significant.

d) ***Less than Significant Impact.*** No human remains were encountered in the project area during surveys, and the proposed project is not expected to disturb human remains during construction. If human remains are encountered during construction, compliance with the California Codes, as described for the proposed project, would ensure the remains are protected and evaluated by the County Coroner. With the project's construction measures, impacts on human remains would be less than significant.

Mitigation Measures

None required.

3.6 Geology and Soils

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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, creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Environmental Setting

Geology

The project area is in the northern portion of Tehama County and is in the Great Valley geomorphic province. Most of the rocks in the county are sedimentary and range in age from the Upper Jurassic to current era (Tehama County 2009a). Sedimentary rocks formed from alluvium and dating to the recent Quaternary era underlie the project area and are associated with the South Fork Cottonwood Creek (Strand 1969).

Battle Creek Fault generally follows Cottonwood and Battle creeks from southwest to northeast and crosses through the northern part of Tehama County near the project area (Jennings and Bryant 2010). This fault is a quaternary-age fault that has not experienced displacement (i.e., no earthquake activity) in more than 700,000 years. No Alquist-Priolo faults have been delineated in Tehama County, and no active or potentially active faults have been identified in the county (Tehama County 2009a). Seismic activity at faults outside the county or associated with an eruption of Mount Lassen could result in groundshaking and possible minor damage to structures, but seismic hazards and geologic hazards associated with seismic activity are considered low.

Soils

The Soil Survey of Tehama County, California (Natural Resources Conservation Service 1967, 2012) identifies seven soil map units or soil types in the project area (Figure 5):

- Arbuckle Gravelly Loam, 0-3% slopes (AvA): This soil is well drained with moderate to moderately rapid permeability and slow runoff. It is not a hydric soil. It has a slight erosion potential.

- Cortina Gravelly Fine Sandy Loam (Cz): This excessively drained soil has rapid permeability, but runoff is slow. It is not a hydric soil, but contains hydric inclusions. It has a slight erosion potential.

- Hillgate Loam (HgA): This soil is well drained with very low permeability and moderate runoff. It is not a hydric soil. It has a slight erosion potential.

- Maywood Loam, High Terrace, 0-3% slopes (Mf): This well drained soil has very slow permeability. It is not a hydric soil, but contains hydric inclusions as riverwash. It has a slight erosion potential.

- Riverwash (Rr): This soil type is found along intermittent and perennial streams and is composed of sand and gravel deposits. This is a hydric soil. It has a very severe erosion potential.

- Tehama Gravelly Loam, 0-3 % slopes (Tb): This soil is well drained with slow permeability. It is not a hydric soil. It has a slight erosion potential.

- Yolo Loam, Clay Loam Substratum (Ys): This soil is well drained with slow permeability. It is not a hydric soil. It has a slight erosion potential.

Impacts

a) ***No Impact.*** The project area is not likely to be affected by surface fault rupture, strong seismic ground shaking, seismic-related ground failure, or landslides based on existing conditions. It could, however, be subject to secondary hazards, such as ground shaking from other regional active or potentially active faults. Temporary construction activities would not expose workers or other people to hazards from ground shaking, and the new bridge would be designed to sustain the level of earthquake activity anticipated in the project area. No impacts are anticipated.

b) ***Less than Significant Impact.*** The proposed project would require grading, excavation, and earthwork on approximately 10 acres during construction. Excavation would be necessary for the new bridge pier and abutments, removal of the existing bridge substructure, and the widening of the floodplain upstream of the new bridge. Additional soil disturbance would result from modification of the roadway, removal of portions of the existing road, modification of the intersection, and installation of the new bridge. Most soil disturbance associated with the roadway modification would take place on the Maywood Loam soil type, with some disturbance on the Arbuckle Gravelly Loam, Cortina Gravelly Fine Sandy Loam, Tehama Gravelly Loam, and Yolo Loam soil types. These soil types have a slight erosion potential. Activities in the creek have the greatest potential to result in soil erosion because they would occur on Riverwash, which has a severe erosion potential and is constantly subject to erosion associated with creek flow. The project would include standard BMPs to minimize the potential for soil erosion in accordance with Caltrans Standard Specifications and the SWPPP to be prepared for the project. Following construction, exposed and disturbed areas would be recontoured to blend in with adjacent conditions. Implementation of

BMPs would ensure construction-related impacts from soil erosion are less than significant. Implementation of Mitigation Measure WQ-1 identified under Hydrology and Water Quality would further minimize erosion-related impacts on water quality, and implementation of Mitigation Measure BIO-4 would stablize and protect soils along the creek where riparian vegetation is restored.

c, d) ***No Impact.*** The project area does not contain unstable geologic units or soils, and the soils in the project area have relatively low clay content and low expansivity potential. Based on the existing conditions in the project area, the new bridge and modified road would not create a risk to life or property from unstable or expansive soils. No impacts are anticipated.

e) ***No Impact.*** The proposed project is a surface transportation project, not a residential, commercial, or industrial development project. Septic tanks and alternative wastewater disposal systems are not part of the project.

Mitigation Measures

None required, but refer to Mitigation Measure WQ-1 in the Hydrology and Water Quality discussion and Mitigation Measure BIO-4 in the Biological Resources discussion.

3.7 Greenhouse Gas Emissions

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

California has demonstrated its intent to address global climate change through research, adaptation, and GHG inventory reductions. In response, the California Legislature enacted the

California Global Warming Solutions Act of 2006 (AB 32, Health and Safety Code Section 38500 et seq.) to implement standards that will reduce GHG emissions to 1990 levels. In the act, the Legislature found that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009. At the local level, the Tehama County APCD published its *Planning & Permitting Air Quality Handbook – Guidelines for Assessing Air Quality Impacts* in December 2009, which recommended a GHG emissions threshold of 900 metric tons of carbon dioxide (CO2) and CO2 equivalents per year. The APCD threshold is hereby adopted as the applicable threshold of significance for this project.

Impacts

a, b) ***Less than Significant Impact.*** The proposed project would result in short-term GHG emissions associated with construction activities that may contribute to global climate change. Project operation, however, would be expected to result in reduced emissions from vehicles moving through the project area, as discussed under Air Quality. The project by design would not increase the number of vehicle trips through the project area or increase the amount of vehicle miles traveled.

GHG emissions would primarily be in the form of CO2 from equipment and vehicle exhaust, with nominal increases in methane and nitrous oxide emissions. A net increase in CO2 emissions would result from engine exhaust from heavy-duty construction equipment, transport trucks hauling materials (e.g., soil and aggregate), and worker commute trips during the two construction seasons for the proposed project. Although any increase in GHG emissions would add to the quantity of emissions that contribute to global climate change, emissions associated with construction of the proposed project would occur over a finite period of time and would cease upon completion of construction. Based on recent emissions modeling for a project of a similar magnitude and duration in Tehama County (99W at Thomes Creek Bridge Project, see Appendix C), the proposed project is expected to generate approximately 400 metric tons of CO2 over two years, which is less than the APCD threshold of 900 metric tons per year. The proposed project's GHG emissions would have a negligible cumulative contribution towards statewide GHG emissions and are not determined to be a considerable contribution to the cumulative global impact. In addition, the proposed project would not conflict with the objectives of AB 32; the Tehama County APCD guidelines; or other applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts relating to GHG emissions would be less than significant.

Mitigation Measures

None required.

3.8 Hazards and Hazardous Materials

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 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?	☐	☐	☒	☐

Environmental Setting

The Tehama County Environmental Health Department oversees businesses in the county that regularly use and transport hazardous materials (Tehama County 2009a). Land uses that typically involve the use of hazardous materials include mining operations, heavy and light industrial uses, propane/petroleum fueling and/or storage facilities, and commercial and retail

operations. Construction activities also typically require the use of hazardous materials, but on a short-term basis and in smaller quantities than long-term operations. I-5 to the east of the project area and other major roadways throughout the county are frequently used for transporting hazardous materials, and permits are required for such transport in the county.

In the event of a major hazardous material spill or related accident, Tehama County operates under the Standardized Emergency Management System to respond to emergencies throughout the county. This system uses a multiple level emergency response organization that identifies the appropriate local, regional, and/or state responders, including the Tehama County Sheriff's Department and Fire Department, to contact.

No hazardous material cleanup sites or leaking underground storage tanks have been reported in the project area (State Water Resources Control Board 2012). The project area is not in a high wildfire hazard area and is not surrounded by wildlands. No airports or airstrips are located near the project area.

Impacts

a) ***Less than Significant Impact.*** Small amounts of hazardous materials would be used during construction activities for equipment maintenance (e.g., fuel and solvents) and roadway resurfacing and re-striping. Use of hazardous materials would be limited to the construction phase and would comply with applicable local, state, and federal standards, including Caltrans Standard Specifications, associated with the handling and storage of hazardous materials. The public and environment would not be exposed to substantial hazards associated with hazardous material use in the project area, thus impacts would be less than significant. Implementation of Mitigation Measure WQ-1 identified under Hydrology and Water Quality would further ensure hazardous materials impacts on the environment are minimized.

b) ***Less than Significant Impact.*** Construction activities would require the use of certain potentially hazardous materials (e.g., petroleum-based fuels) and could expose the public and environment to related hazards. Spills during on-site fueling, equipment malfunction, or an upset condition (e.g., puncture of a fuel tank through operator error) could result in a release of fuel or oils into the environment. Caltrans Standard Specifications require that the construction contractor implement spill and leak protection procedures and cleanup measures to contain spills of oil and other hazardous materials. The contractor is required to ensure that adequate materials are on hand to clean up any accidental spill that may occur. Spills will be cleaned up immediately, and all wastes and used spill control materials will be properly disposed of at approved disposal facilities. With implementation of these standard provisions, potential hazards associated with the release of hazardous materials would be less than significant. Implementation of Mitigation Measure WQ-1 identified under Hydrology and Water Quality would further ensure hazardous materials impacts on the environment are minimized.

c) ***Less than Significant Impact.*** The project area is less than 0.25 mile from the Evergreen Middle School, which is on the south side of Bowman Road east of the

intersection of Evergreen Road and Bowman Road. Use of hazardous materials in the project area would not expose students at the school to hazardous conditions, and accidental spills would be cleaned up pursuant to Caltrans Standard Specifications to minimize the effects on the environment. The proposed project would not expose students to substantial hazards associated with the use of hazardous materials in the project area; impacts would be less than significant.

d) ***No Impact.*** No hazardous materials sites listed on the Cortese List (Government Code Section 65962.5) or other hazardous materials cleanup sites occur in the vicinity of the project area. The proposed project would not affect known hazardous materials sites.

e, f) ***No Impact.*** The project area is not located in an area associated with an airport land use plan, nor is it within 2 miles of a public airport. The proposed project would not create a public safety hazard related to airports.

g) ***Less than Significant Impact.*** The proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. Temporary lane closures would be necessary during construction activities, but traffic control measures would be implemented (i.e., signs, flagging, traffic controllers), and a total road closure would not be required. The new bridge would be constructed south of the existing bridge, and the existing bridge would not be removed until the new bridge is complete and open for traffic. Because a road closure is not required, and traffic control measures would be implemented, construction would not significantly impact the circulation of emergency service vehicles through the project area or evacuation in the event of a major emergency. Impacts would be less than significant.

h) ***Less than Significant Impact.*** Although the project area is not in a high fire hazard area, the use of construction equipment in the pasture lands and grasslands would increase the potential for a fire, which could damage private property and nearby residences. The contractor will be required to have fire protection devices on equipment used in these lands, pursuant to Public Resources Code 4442. This would reduce the potential for fire hazards, and the presence of a watering truck on-site at all times would provide a means for suppressing fire if accidentally ignited in the project area during construction. As such, impacts relating to fire hazards would be less than significant.

Mitigation Measures

None required, but refer to Mitigation Measure WQ-1 in Hydrology and Water Quality discussion.

3.9 Hydrology and Water Quality

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should 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 of 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 storm water 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 as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The South Fork Cottonwood Creek flows in a northerly direction through the project area, under Evergreen Road Bridge. It converges with the main channel of Cottonwood Creek about 1 mile north of the project area, and Cottonwood Creek converges with the Sacramento River approximately 7 miles east of the project area. Cottonwood Creek drains an area of 927 square miles in the Coast Ranges of Tehama and Shasta counties (Graham Matthews & Associates 2003). Streamflow in the creek is measured by the U.S. Geological Survey downstream of the project area at a point 2.8 miles upstream of the confluence with the Sacramento River. Mean annual flow measured between 1941 and 2000 was 645,000 acre-feet, with annual and seasonal variations dependent on precipitation and runoff in the watershed.

The Cottonwood Creek watershed has experienced several major flood events since the late 1800s. These flood events have resulted in substantial erosion along the creek and its tributaries and have influenced their current alignments. Major flooding has also caused property damage and affected ranch lands and other agricultural lands in the area. The flood zone along the South Fork Cottonwood Creek in the project area extends approximately 3,000 feet wide and encompasses most of the project area, according to the Federal Emergency Management Agency (2012) maps. This zone is designated "AE" and is subject to inundation by a 1 percent annual chance flood event at base elevations between 445 and 450 feet. Flood flows in the creek periodically overtop the banks and flow across Evergreen Road on the north side of the creek (Pacific Hydrologic Incorporated 2005). Peak flow in the creek through the project area is estimated at 47,500 cubic feet per second for a 50-year flood event and 54,700 cubic feet per second for a 100-year flood event. The existing bridge is about 6 feet above the floodplain, but the bottom of the creek channel has lowered about 3.5 feet since 1992. This larger channel is capable of conveying more flow during flood events, which results in less overbank storage. The creek also has potential to carry substantial volumes of drift of all sizes.

Cottonwood Creek and its tributaries provide a variety of beneficial uses, such as cold and warmwater fisheries and municipal and agricultural uses, as defined in the Basin Plan for the Sacramento and San Joaquin River Basins (Central Valley RWQCB 2011). Water quality data indicate that the creek and its tributaries have generally good water quality with occasionally higher levels of heavy metals, calcium bicarbonate, and fecal coliform, particularly in the lower reaches of Cottonwood Creek (CH2MHILL 2001). Water quality fluctuates in response to flow patterns, with higher turbidity and sedimentation during higher flows in the winter and spring months and higher concentrations of major ions during lower flows in the summer and fall months. The South Fork Cottonwood Creek is one of the most turbid water bodies in the Cottonwood Creek watershed. Water temperatures in the South Fork tend to be higher and have more diurnal variation than other tributaries to Cottonwood Creek because of its shallow depth. The South Fork Cottonwood Creek is not on the 303(d) list of impaired water bodies (State Water Resources Control Board 2010).

Impacts

a) ***Less than Significant with Mitigation Incorporated.*** Construction activities in the floodplain of South Fork Cottonwood Creek would occur between June 1 and November 15, when flows are the lowest, to minimize impacts to the creek. Sediment

and other pollutants may be discharged into the creek during construction or be carried by stormwater into the creek, but the use of BMPs would minimize the potential for eroded, disturbed, or contaminated soil to enter the creek. Hazardous materials (e.g., fuels, solvents) may also incidentally enter the creek during construction, but standard construction practices and spill prevention and cleanup measures would minimize the water quality effects. A temporary increase in turbidity may result from erosion of the newly exposed banks once the existing bridge is removed and as a result of excavation of the floodplain, but turbidity levels would decrease as the soil becomes stabilized and vegetation re-establishes. The extent of water quality impacts is dependent on the following factors: erosion potential of soil types in the project area, nature and duration of the construction activity, extent of the disturbed area, timing of particular construction activities relative to the rainy season, and proximity to the creek.

The project would comply with the *Statewide General Permit for Discharges of Storm Water Associated with Construction Activity* and Caltrans Standard Specifications. A SWPPP will be prepared for the project, and BMPs will be implemented during construction activities to reduce or minimize discharge of pollutants from construction activities. Implementation of construction measures that include BMPs in accordance with the SWPPP and Caltrans requirements would reduce the potential for water quality impacts during construction activities, but sedimentation and pollutants could still enter the creek and affect water quality, resulting in a potentially significant impact. Implementation of Mitigation Measure WQ-1 would further reduce the potential for water quality impacts and protect water quality in the creek, reducing impacts to less than significant.

b) ***No Impact.*** The proposed project would not require the use of groundwater and would not affect the groundwater aquifer. The new road alignment and bridge would not affect groundwater recharge in the area.

c, d) ***Less than Significant Impact.*** Construction of the new bridge and removal of the existing bridge would not require in-stream diversions, although some dewatering may be necessary during pier and abutment construction. The new bridge would be above the floodplain and would not affect flow in the South Fork Cottonwood Creek. The new bridge and road alignment would not alter drainage patterns in the creek or upland areas that convey flow into the creek. In addition, construction would be scheduled during low-flow summer months to minimize impacts on the creek.

Excavation along the bank of the creek would widen the floodplain and lower the 100-year flood elevation to maintain adequate distance between the soffit of the new bridge and the flood elevation in accordance with requirements of the Central Valley Flood Protection Board. Drainage patterns along the creek through the project area would be expected to naturally adjust to the wider floodplain. This change to the creek could temporarily increase erosion activity along the bank during major flow events after the excavation takes place, but regeneration of vegetation along the bank would help stabilize the bank and reduce long-term erosion. Based on modeling conducted for the County (Pacific Hydrologic Incorporated 2005), the excavated area is not expected to

fill back in with sediment carried from upstream because of the hydraulic conditions of the channel in the project area. The excavation and design of the new bridge would ensure flood flows do not overtop the banks and affect Evergreen Road. Because of the benefits of widening the floodplain near the new bridge and the minimal changes to drainage patterns, impacts would be less than significant.

e) ***Less than Significant Impact.*** The proposed project would not change the amount of runoff from the project area nor would it provide substantial additional sources of polluted runoff. No stormwater drainage systems are located in or near the project area. Impacts relating to runoff would be less than significant.

f) ***No Impact.*** No additional impacts to water quality are anticipated.

g) ***No Impact.*** The proposed project does not include housing.

h, i) ***Less than Significant Impact.*** The new bridge would be above the 100-year flood elevation, but the piers and abutments for the bridge would be located within the floodplain. Some construction activities would take place in the floodplain, but they would be scheduled during low-flow summer months to minimize impacts on the creek. The proposed project would not impede flood flows, and excavation along the bank of the creek would reduce the potential for major flood flows to overtop the banks and flow across Evergreen Road. The risk of flood hazards would be reduced with the proposed project. Impacts would be less than significant.

j) ***No Impact.*** The project area is not in an area subject to seiche or tsunami.

Mitigation Measures

Mitigation Measure WQ-1: Implement measures to protect water quality during construction.

Tehama County shall require the construction contractor to implement measures during construction activities to protect water quality in the South Fork Cottonwood Creek. The measures listed below shall be incorporated into the SWPPP prepared for the project. The contractor(s) conducting the work shall be responsible for constructing or implementing, regularly inspecting, and maintaining the measures in good working order.

- Grading operations will be conducted to eliminate direct routes for conveying potentially contaminated runoff to the creek. Erosion control barriers such as silt fences and mulching material will be installed, and disturbed areas shall be reseeded with native grasses or other plants where necessary.

- Ground disturbance will be minimized by conducting all work according to site-specific construction plans that identify areas for clearing, grading, and revegetation and clearly delineate environmentally sensitive areas, such as riparian habitat, outside the work area.

- Riparian and wetland vegetation will be avoided wherever possible. Cleared areas will be covered with mulches, and silt fences will be installed near riparian areas or streams to control erosion and trap sediment.

- Disturbed soils at all construction sites and staging areas will be stabilized before the onset of the winter rainfall season.

- Stockpiles will be stabilized and protected from exposure to erosion and flooding.

- Strict on-site handling rules will be developed and implemented to keep construction and maintenance materials out of the creek and other drainages in the project area.

- Controlled construction staging, site entrance, concrete washout, and fueling areas will be maintained at least 100 feet away from the creek, other drainages, and wetlands to minimize accidental spills and runoff of contaminants in stormwater. All construction and building materials and fill will be stored and contained in a designated area at least 100 feet from the creek to prevent transport of materials into adjacent streams. Building materials storage areas containing hazardous or potentially toxic materials, such as herbicides and petroleum products, will have an impermeable membrane between the ground and the hazardous material and will be bermed to prevent the discharge of pollutants to ground water and runoff water.

- Equipment shall be re-fueled and serviced at designated construction staging areas. Refueling and servicing of equipment will be conducted with absorbent material or drip pans underneath to contain spilled fuel. Any fluid drained from machinery during servicing will be contained in leakproof containers and delivered to an appropriate disposal or recycling facility.

- Precautions will be taken to prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or entering water courses.

- Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials shall not be allowed to enter into streams or other waters. A plan for the emergency clean up of any spills of fuel or other materials shall be available when construction equipment is in use. Spill cleanup equipment will be maintained in proper working condition. CDFG, RWQCB, Caltrans, and the County will be notified of any spills and cleanup procedures.

- Construction vehicles and equipment shall be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.

3.10 Land Use and Planning

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 communities conservation plan?	☐	☐	☐	☒

Environmental Setting

The project area is in a rural community dominated by agricultural uses with scattered residences. The Tehama County General Plan designates the project area as valley floor agriculture (Tehama County 2009a). This designation applies to lands that are suited and retained for orchard and field crop production and associated uses. Other uses may be allowed with approval by the County, and one dwelling is allowed per legal parcel. Minimum parcel sizes are 20 acres for non-Williamson Act contract lands and 40 acres for Williamson Act contract lands.

Impacts

a) ***No Impact.*** The project area is not located within an established community. The proposed project would replace an existing bridge and would not result in any other new, permanent structures that could physically divide an established community.

b, c) ***No Impact.*** The proposed project would not conflict with the Tehama County General Plan. The proposed road improvements and bridge replacement are consistent with the 2006 Tehama County Regional Transportation Plan (identification number 2379). No habitat conservation plans or natural community conservation plans have been developed for the project area.

Mitigation Measures

None required.

3.11 Mineral Resources

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Environmental Setting

Tehama County contains mineral resources that are extracted for construction purposes, such as nonmetallic sand, gravel, and volcanic cinder, and other mineral resources, such as borax, copper, garnet, opal, and Wallstonite (Tehama County 2009a). The project area does not contain any known mineral resources or claims for mineral resources.

Impacts

a, b) ***No Impact.*** The project area is not within or adjacent to any important mineral resource areas identified by the State of California or Tehama County. The proposed project would require the use of imported fill material for construction, which would come from a Surface Mining and Reclamation Act-approved mine site, and it would not affect the availability of mineral resources of value to the state or region.

Mitigation Measures

None required.

3.12 Noise

Would the proposed project result in:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Would the proposed project result in:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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 of 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?	☐	☐	☐	☒

Environmental Setting

The primary noise sources in Tehama County are highway and local traffic, commercial and industrial uses, airports, and railroad operations. Along Bowman Road, the County estimates that traffic generates noise levels of 65 dB (Community Noise Equivalent Level) up to 90 feet from the centerline. In comparison, traffic along I-5 generates noise levels of 65 dB up to 479 feet from the centerline. Pursuant to the General Plan, acceptable traffic-related noise levels range from 60 to 70 dB (Ldn), depending on the land use. Acceptable non-transportation noise levels range from 50 to 65 dB (Leq) during the day. The Noise Element of the General Plan considers the adoption of a County-wide noise control ordinance that would restrict construction activities to certain hours; however, at this time, Tehama County does not have an adopted noise ordinance.

Sources of noise in the project area are primarily from motorists on the roads and agricultural operations. Sensitive noise receptors in the project vicinity include several rural residences along Evergreen and Bowman roads.

Impacts

a) ***Less than Significant with Mitigation Incorporated.*** Construction activities would temporarily increase noise levels in the vicinity of the project area. Actual noise levels would vary throughout the day depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. Noise levels for typical construction equipment anticipated to be used for the proposed project are listed in Table 5. Several residences are present near the project area, and construction noise would temporarily expose residents to increased

noise levels, ranging from about 76 to 101 dB at 50 feet from the activity. Nearby residences are more than 50 feet from most work areas, and noise levels would be expected to attenuate (decrease) as they travel away from the source. Nighttime construction activity, if necessary, would comply with noise standards outlined in Caltrans Standard Specifications, and applicable construction equipment will be equipped with appropriate mufflers pursuant to the Standard Specifications. Construction noise would be temporary, but it could exceed General Plan standards for non-transportation noise sources and would be potentially significant. Implementation of Mitigation Measure NOISE-1 through NOISE-2 would reduce noise exposure to nearby receptors and ensure impacts are less than significant. Long-term noise associated with use of Evergreen Road would be similar to current conditions.

Table 5. Typical Construction-Related Noise Levels

Construction Equipment	Typical Noise Level (dB) 50 Feet from Source
Pile driver (impact)	101
Truck	88
Bulldozer	85
Concrete mixer	85
Grader	85
Loader	85
Crane (mobile)	83
Concrete pump	82
Pump	76

Source: Federal Transit Administration 2006

b) ***Less than Significant Impact.*** Use of large pieces of equipment (e.g., excavators, heavy trucks) and certain activities, such as pile driving, during construction would result in the periodic and temporary generation of groundborne vibrations. Vibration levels for typical large equipment range from approximately 0.003 to 0.089 inch per second peak particle velocity and 58–87 dB in velocity level (Lv) at 25 feet from the activity (Federal Transit Administration 2006). Groundborne vibrations above 0.25 inch per second could result in damage to nearby buildings; however, vibrations associated with the proposed project would not be this intense and would not result in excessive vibrations. The vibrations generated by construction equipment would spread through the ground and diminish in magnitude as they travel away from the source. Groundborne vibrations would be limited to the construction phase and would result in less than significant impacts.

c) ***No Impact.*** Because the project is not traffic-inducing (i.e., traffic levels will not increase), ambient noise levels in and around the project area would not permanently increase as a result of project implementation.

d) ***Less than Significant with Mitigation Incorporated.*** As discussed under item a) above, the proposed project would result in a temporary increase in ambient noise levels in the project vicinity that could expose nearby sensitive receptors to high noise levels. Implementation of Mitigation Measures NOISE-1 through NOISE-2 would reduce impacts to less than significant.

e, f) ***No Impact.*** The project area is not in area associated with an airport land use plan nor is it within 2 miles of a public airport or near a private airstrip.

Mitigation Measures

Mitigation Measure NOISE-1: Maintain and equip construction equipment with noise control devices.

The County shall ensure that the construction contractor implements the following mitigation measures during construction activities:

- Construction activities shall be limited to the hours of 7 a.m. to 7 p.m. when activities occur within 500 feet of a residential or other noise-sensitive land use.
- All construction equipment shall be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturers' specifications.
- The simultaneous operation of multiple construction equipment within 100 feet of residences shall be prohibited. Equipment not in use shall not be left idling for more than 5 minutes.

Mitigation Measure NOISE-2: Coordinate with residences to minimize noise disturbance.

The County will work with the construction contractor and nearby residents to minimize disturbance to occupied residences. Before construction near noise-sensitive receptors, the County shall provide written notification to potentially affected receptors, identifying the type, duration, and frequency of construction operations. Notification materials will also identify a mechanism for residents to register noise-related complaints with the County; the County shall consider noise-related concerns on a case-by-case basis, but at a minimum will implement a 10 p.m. to 7 a.m. noise curfew in the event of complaint (in addition to the requirements of Mitigation Measure NOISE-1).

3.13 Population and Housing

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Environmental Setting

Tehama County had an estimated population of 63,463 people in 2010 (U.S. Census Bureau 2012). A portion of this population is in three incorporated cities: Red Bluff, Corning, and Tehama. The population of the unincorporated area was estimated at 40,936 in 2008 (Tehama County 2009b). The project area is in a rural agricultural community and does not contain an established community. Several residences are located on parcels along Evergreen and Bowman roads.

Impacts

a) ***No Impact.*** The proposed project is not designed to increase the capacity of Evergreen Road and would not induce population growth in the area. The new bridge would be wider, but would match the roadway approaches on either side (i.e., have two lanes instead of one), which would be the same width as the existing roadway approaches. The modified alignment and new bridge are designed to accommodate existing traffic conditions.

b, c) ***No Impact.*** No houses or people would be displaced as a result of the proposed project.

Mitigation Measures

None required.

3.14 Public Services

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) 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?	☐	☐	☐	☒

Environmental Setting

The Public Services and Safety elements of the Tehama County General Plan describe the fire protection, police protection, schools, parks, and other public services available within the county (Tehama County 2009a). The Tehama County Fire Department and the California Department of Forestry and Fire Protection are integrated departments that mutually support each agency's fire suppression and emergency response efforts within the county. The Tehama County Fire Department currently provides fire responses to the citizens of Tehama County through a network of sixteen fire stations and fifteen volunteer fire companies. The fire stations nearest to the project area are located along Bowman Road west of the project area. Law enforcement in the unincorporated areas of Tehama County is provided by the Tehama County Sheriff's Department located in Red Bluff.

No public service facilities are located in the project area or are served by Evergreen Road through the project area. The Evergreen Middle School is on the south side of Bowman Road east of the intersection of Evergreen Road and Bowman Road. Evergreen Road is used for emergency service vehicles, as necessary, to access lands north and east of the Evergreen Road-Bowman Road intersection. Emergency access is discussed under Transportation/Traffic.

Impact

a) ***No Impact.*** The proposed project would not affect public service providers in the region and would not result in the need for new or physically altered facilities.

Mitigation Measures

None required.

3.15 Recreation

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

No recreational facilities are located in or near the project area. Evergreen Road through the project area does not provide access for recreational facilities in the region.

Impacts

a, b) ***No Impact.*** The proposed project would not affect recreational facilities.

Mitigation Measures

None required.

3.16 Transportation/Traffic

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
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 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) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Environmental Setting

Bowman Road is an essential road in the county and serves as a local and intra-regional route for local access and connections to major access routes, such as I-5 east of the project area. Evergreen Road is a rural road that primarily serves local landowners and agricultural uses. Both roads are also used occasionally by bicyclists and pedestrians, although no designated paths or trails exist in the project area. Both roadways are important for emergency access for fire protection, law enforcement, and other emergency services. No transit services are provided to the area.

The County recorded traffic counts at the Evergreen Road Bridge between 1966 and 2000. Traffic levels steadily increased from 256 vehicles (annual daily traffic) in 1966 to approximately 1,300 vehicles in 2000. During a reconnaissance-level site visit in May 2012, approximately 20 vehicles were encountered on Evergreen Road within a half hour, which

seemed high for a rural road, and the stop signs at the bridge approaches caused brief delays to cross the bridge while waiting for other vehicles.

Impacts

a) ***Less than Significant Impact.*** The proposed project is not designed to increase vehicle trips on Evergreen Road; it is intended to improve traffic flow and traffic safety through the area by installing a wider bridge that would match the two-lane roadway approaches and reducing the severity of curves. Construction-related activities would temporarily increase traffic delays on the road and across the bridge and would result in increased traffic on Bowman Road during construction. Temporary delays may be experienced during peak hour traffic when lane closures or detours are needed for travelers passing through the project area. The contractor will be responsible for implementing traffic control measures to minimize traffic disruptions and delays and maintain safe conditions for travelers, as described for the proposed project. Through traffic would also be maintained during the construction period, and no road closures will be needed. With the construction measures, traffic impacts on local travelers would be less than significant.

Approximately 15 workers are anticipated during construction, which would result in an increase of about 15 vehicle trips twice per day on Bowman and Evergreen roads. Most workers would arrive at the project area in the early morning hours, prior to peak hour traffic, and leave from the project area in the late evening hours, after peak hour traffic. Periodic transportation of equipment and materials to the project area would also increase local traffic, but these trips would be scheduled primarily at the beginning of the construction season and periodically throughout the season. Haul trucks would be used to transport waste off-site to the landfill for disposal, which would take place periodically throughout the construction season. Increased traffic as a result of construction activities would not be substantial and would be limited to two construction seasons. Although the construction phase of the project would increase traffic on local roads and highways, project-related traffic impacts would be less than significant.

b) ***Less than Significant Impact.*** The proposed project is not designed to increase the amount of traffic on Evergreen Road; it is intended to improve traffic flow and traffic safety through the area by installing a wider bridge that would match the two-lane roadway approaches and reducing the severity of curves. Construction-related activities would result in temporary lane closures and a slight delay for vehicles passing through the area, but the effect would be temporary and impacts to level of service standards are not anticipated. In addition, the amount of project-related traffic would be minimal and limited to about 15 vehicle trips twice per day and periodic trucks to haul equipment, materials, and waste during two construction seasons. Project implementation would have a less-than-significant impact on levels of service of nearby roads.

c) ***No Impact.*** The proposed project would not affect air traffic patterns and would have no effect on air traffic levels or safety.

d) ***Less than Significant Impact.*** The proposed project would not result in inadequate emergency access; it would improve traffic flow across Evergreen Road Bridge and along Evergreen Road. Temporary lane closures would not impede access for emergency vehicles through the project area. Access through the project area and to nearby residences would be maintained throughout the construction period. Impacts relating to emergency access would be less than significant.

e) ***Less than Significant Impact.*** The proposed project is designed to improve Evergreen Road by reducing the severity of curves in the vicinity of the Evergreen Road Bridge. The new alignment would incorporate beneficial design features to improve safety for travelers using the road. The changes to the road and bridge would be beneficial and less than significant.

f) ***No Impact.*** The proposed project would improve Evergreen Road and replace the bridge with a wider bridge that would reduce safety concerns for pedestrians and bicyclists to cross the bridge. It would not conflict with adopted policies for alternative transportation.

Mitigation Measures

None required.

3.17 Utilities and Service Systems

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☐	☒

Would the proposed project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☐	☒	☐

Environmental Setting

The ACID Main Canal crosses through the project area, and an ACID culvert crosses under Evergreen Road on the west side of the project area to connect the canal on either side of the road. Power lines follow the road on both sides and provide service to the adjacent residences. No water or wastewater facilities are located in the project area. Nearby residences use septic systems for wastewater disposal.

Solid waste management in Tehama County includes operation of one landfill (Tehama County/Red Bluff Sanitary Landfill), several transfer stations, and a waste stream diversion program which includes recycling and composting. The landfill has a maximum permitted capacity of 600 tons per day and had a remaining capacity of 2.15 million cubic yards as of December 31, 2008 (California Department of Resources Recycling and Recovery 2012). The Tehama County/Red Bluff Sanitary Landfill is estimated to have capacity through 2040.

Impacts

a, b) ***No Impact.*** The proposed project would not generate wastewater or involve construction of new wastewater facilities. Any water removed from the creek during dewatering would be re-used on-site for irrigation purposes.

c) ***Less than Significant Impact.*** The project would involve replacement of a creek crossing in the form of a culvert under Evergreen Road. Construction impacts would be minimal and are discussed as part of the project's impacts in other resource discussions. No substantial adverse impacts are anticipated from construction of the culvert; therefore, impacts would be less than significant.

d) ***No Impact.*** The proposed project would not require water service and would not need new or expanded water supplies or entitlements. Water trucks would be necessary during construction, but water supply for the trucks would come from an existing, local source.

e) ***No Impact.*** The proposed project would not produce wastewater and would not increase the demand for wastewater treatment.

f, g) ***Less than Significant Impact.*** Solid waste generated by the proposed project would be limited to construction debris, including asphalt and concrete, and pieces of the existing bridge. Off-site disposal would occur at the Tehama County/Red Bluff Sanitary Landfill, which has capacity to receive the small quantity of construction waste generated by the project, and would be conducted in accordance with federal, state, and local regulations pertaining to waste disposal. Materials would be recycled or re-used as feasible. The proposed project would not generate the need for a new solid waste facility, and impacts would be less than significant.

Mitigation Measures

None required.

3.18 Mandatory Findings of Significance

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
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?	☐	☒	☐	☐

Impacts

a) ***Less than Significant with Mitigation Incorporated.*** Construction-related activities could result in impacts on special-status species and nesting migratory birds. Construction and mitigation measures would be implemented to ensure minimal impacts to sensitive biological resources. Impacts on cultural resources would be less than significant with implementation of construction measures and based on the low potential for previously undiscovered resources.

b) ***Less than Significant Impact.*** The proposed project could result in cumulatively considerable impacts on special-status wildlife species, but construction and mitigation measures would ensure project effects on the species and their habitat are less than significant. Other impacts would be localized around the project area and would not contribute to cumulative impacts in the region. Cumulative impacts would be less than significant.

c) ***Less than Significant with Mitigation Incorporated.*** The proposed project, particularly during the construction phase, would result in a variety of temporary impacts to human beings. Potential adverse effects would be related to temporary increases in noise, traffic, and air pollutants during construction and any accidental spills of hazardous materials. However, implementation of construction and mitigation measures and compliance with Caltrans Standard Specifications and applicable regulations and permits would ensure these impacts are less than significant.

Chapter 4 - Report Preparation and References

4.1 Report Preparation

Tehama County – CEQA Lead Agency

Kevin Rosser, Civil Engineer/Environmental Coordinator

Pacific Hydrologic Incorporated

Norm Brathwaite, Project Design/Hydraulic Study

North State Resources, Inc. (NSR)

Wirt Lanning, CEQA/NEPA Program Manager
Leslie Wagner, Environmental Analyst/Project Manager

4.2 References

California Air Resources Board (CARB). 2011. Aerometric Data Analysis and Management System, Select 8 Summary: Red Bluff, Tehama County and Anderson, Shasta County. Available at: <http://www.arb.ca.gov/adam/select8/sc8start.php>. Accessed May 2012.

California Air Resources Board (CARB). 2012a. Air quality standards and area designations: Tehama County. Available at: <http://www.arb.ca.gov/desig/desig.htm>. Accessed May 2012.

California Air Resources Board (CARB). 2012b. Ambient Air Quality Standards. Available at: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Last updated February 7, 2012. Accessed June 2012.

California Department of Conservation. 2008. Farmland Mapping and Monitoring Program: Tehama County farmland data. Available at: <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>. Accessed May 2012.

California Department of Conservation. 2009. Williamson Act Program: Tehama County contract data. Available at: <http://www.conservation.ca.gov/dlrp/lca/Pages/Index.aspx>. Accessed May 2012.

California Department of Fish and Game (CDFG). 2012. California Natural Diversity Database. RareFind, version 3.1.0. Data last updated April 29, 2012.

California Department of Resources Recycling and Recovery. 2012. Solid Waste Information System: Facility/Site Summary Details: Tehama County/Red Bluff Landfill (52-AA-0001). Available at: <http://www.calrecycle.ca.gov/SWFacilities/Directory/52-AA-0001/Detail/>. Accessed June 2012.

California Department of Transportation (Caltrans). 2003. Storm Water Quality Handbooks: Construction Site Best Management Practices (BMPs) Manual. March.

California Department of Transportation (Caltrans). 2010. Standard Specifications. State of California Business, Transportation and Housing Agency, Department of Transportation.

California Native Plant Society. 2012. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed May 2012.

Central Valley Regional Water Quality Control Board (RWQCB). 2011. Fourth edition of the water quality control plan (basin plan) for the Sacramento River and San Joaquin River basins. Revised October 2011 with approved amendments. California Regional Water Quality Control Board, Central Valley Region.

CH2MHILL. 2001. Cottonwood Creek Watershed Assessment. Prepared for the Cottonwood Creek Watershed Group. Available at: <http://www.ccwgrp.org/cottonwood-creek-watershed-assessment.html>. Accessed June 2012.

Coy, O.C. 1973. California County Boundaries: A Study of the Division of the State into Counties and the Subsequent Changes in their Boundaries. Berkeley: California Historical Survey Commission, 1923. Revised edition: Fresno, California: Valley Publishers, 1973.

Far Western Anthropological Research Group. 2006. Historic Property Survey Report for Evergreen Road Bridge (#08C-0008) Replacement Project, Tehama County, California. Prepared for Tehama County Public Works. January.

Federal Emergency Management Agency. 2012. Flood Map Viewer: Tehama Count Unincorporated Area. Map number 06103C0405H. Available at: <https://hazards.fema.gov/wps/portal/mapviewer>. Accessed May 2012.

Federal Highway Administration. 2006. Transportation air quality facts and figures. January. Available at: <http://www.fhwa.dot.gov/environment/air_quality/publications/fact_book/page15.cfm>. Accessed June 2012.

Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment. Washington, D.C. May.

Goldschmidt, W.R. 1951. Nomlaki Ethnography. University of California Publications in American Archaeology and Ethnology 42(4):303-443.

Goldschmidt, W.R. 1978. Nomlaki. In California, edited by Robert F. Heizer, pp. 341-349. Handbook of North American Indians 8, W.G. Sturtevant. Smithsonian Institution, Washington, D.C.

Governor's Office of Planning and Research. 2008. Technical advisory: CEQA and climate change: Addressing climate change through California Environmental Quality Act Review. Sacramento, CA. Available at: <http://opr.ca.gov/docs/june08-ceqa.pdf>. Prepared June 19, 2008. Accessed June 2012.

Graham Matthews & Associates. 2003. Hydrology, geomorphology, and historic channel changes of Lower Cottonwood Creek, Shasta and Tehama Counties, California. CALFED Bay-Delta Program Project # 97-N07 Final Report. Prepared for National Fish and Wildlife Foundation. November.

Jennings, C.W. and W.A. Bryant. 2010. Fault activity map of California. California Geological Survey, Geologic Data Map No. 6, map scale 1:750,000.

JRP Historical Consulting. 2005. Historical Resources Evaluation Report Evergreen Road Bridge (08C-0008) Replacement Project Over South Fork of Cottonwood Creek, Tehama County, California. Prepared for Far Western Anthropological Research Group and Tehama County Public Works. November.

Moratto, M.J., R.M. Pettigrew, B.A. Price, L.A. Ross, and R.F. Schalk. 1994. Volume I: Project Overview, Research Design and Archaeological Inventory. Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. INFOTEC Research, Inc., Fresno, California and Far Western Anthropological Research Group, Inc., Davis, California. Submitted to Pacific Gas Transmission Company, Portland, Oregon.

Natural Resources Conservation Service. 1967. Soil survey of Tehama County, California. U.S. Department of Agriculture, Soil Conservation Service (Natural Resources Conservation Service).

Natural Resources Conservation Service. 2012. Web soil survey: Tehama County. U.S. Department of Agriculture, Natural Resources Conservation Service. Available at: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed May 2012.

North State Resources (NSR). 2005a. Biological Evaluation/Essential Fish Habitat Assessment (Draft), Sacramento River winter-, Central Valley spring-, and Central Valley fall/late-fall run Evolutionarily Significant Units (ESU) chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley ESU steelhead (*Oncorhynchus mykiss irideus*), Evergreen Road at South Fork Cottonwood Creek Bridge (Bridge No. 08C-0008) Replacement Project. Prepared for Tehama County Public Works. February.

North State Resources (NSR). 2005b. Evergreen Road at South Fork Cottonwood Creek Bridge (08C-0008) Replacement Project, California Red-Legged Frog Site Assessment. Prepared for Tehama County Public Works. November.

North State Resources (NSR). 2005c. Evergreen Road at South Fork Cottonwood Creek Bridge (Bridge No. 08C-0008) Replacement Project, Delineation of Waters of the United States, Including Wetlands (Draft). Prepared for Tehama County Public Works. November.

North State Resources (NSR). 2005d. Evergreen Road at South Fork Cottonwood Creek Bridge Replacement Project, Natural Environmental Study (Draft). Prepared for Tehama County Public Works. Draft.

North State Resources (NSR). 2006. Biological Assessment for the Valley Elderberry Longhorn Beetle (Draft), Evergreen Road at South Fork Cottonwood Creek Bridge (Bridge No. 08c-0008) Replacement Project. Prepared for Tehama County Public Works. January.

Pacific Hydrologic Incorporated. 2005. Evergreen Road Over South Cottonwood Creek, Existing Condition Hydraulic Analysis. Technical memorandum submitted to Tehama County Department of Public Works. March 21, 2005.

Sacramento Valley Air Quality Engineering and Enforcement Professionals. 2009. Northern Sacramento Valley Planning Area 2009 Triennial Air Quality Attainment Plan. August.

State Water Resources Control Board. 2010. California 303(d) list. Available at: <http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml>. Accessed June 2012.

State Water Resources Control Board. 2012. GeoTracker. Available at: <https://geotracker.waterboards.ca.gov/>. Accessed June 2012.

Strand, R.G. 1969. Geologic map of California, Redding Sheet, and explanatory data. Olaf P. Jenkins edition. California Department of Conservation, Division of Mines and Geology. Second printing (1969).

Tehama County. 2006. 2006 Tehama County Regional Transportation Plan (RTP). Prepared for The Tehama County Transportation Commission. Adopted on November 21, 2006.

Tehama County. 2009a. Tehama County General Plan Update 2009-2029. Prepared by PMC. March.

Tehama County. 2009b. Tehama County Housing Element 2009-2014. Revised Draft, October. Prepared by Tehama County Planning Department.

Tehama County Air Pollution Control District. 2009. Planning & permitting air quality handbook: guidelines for assessing air quality impacts. December.

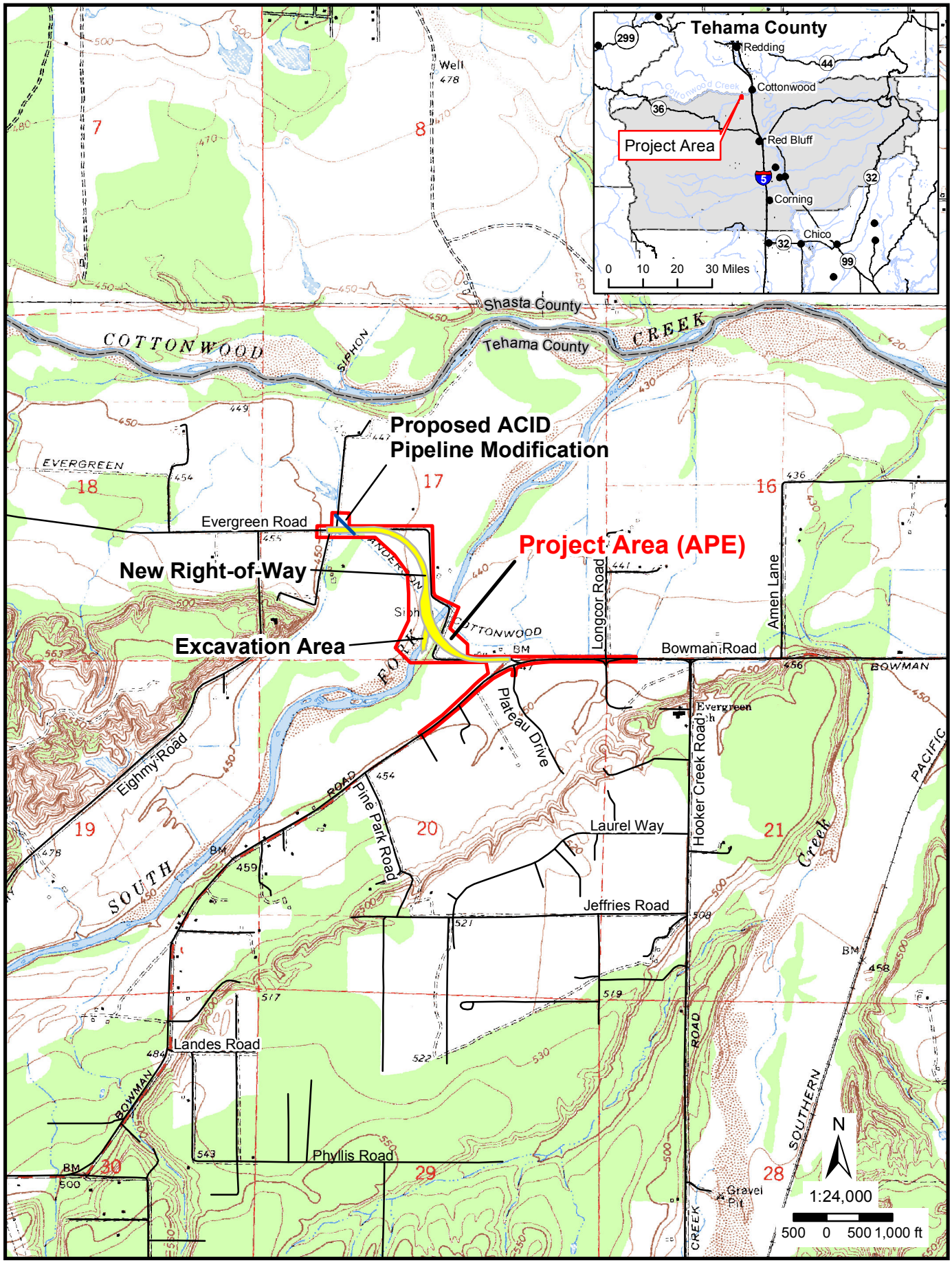
U.S. EnvironmentalProtection Agency (EPA). 2012. National Ambient Air Quality Standards (NAAQS). Available at: <http://www.epa.gov/air/criteria.html>. Last updated May 1, 2012. Accessed June 2012.

U.S. Fish and Wildlife Service (USFWS). 1999. Conservation guidelines for the valley elderberry longhorn beetle. Sacramento, California: U.S. Fish and Wildlife Service.

U.S. Fish and Wildlife Service (USFWS). 2012. Federal endangered and threatened species that occur in or may be affected by projects in Tehama County and/or U.S.G.S. 7 1/2 Minute Quads in and around the project area. U.S. Fish & Wildlife Service, Sacramento Fish & Wildlife Office. Document Number: 120521011702. Database Last Updated: September 18, 2011. List obtained May 21, 2012.

APPENDIX A

Figures



Path: E:\Projects\Tehama_County\Project_Location.mxd lperry 09-5-12

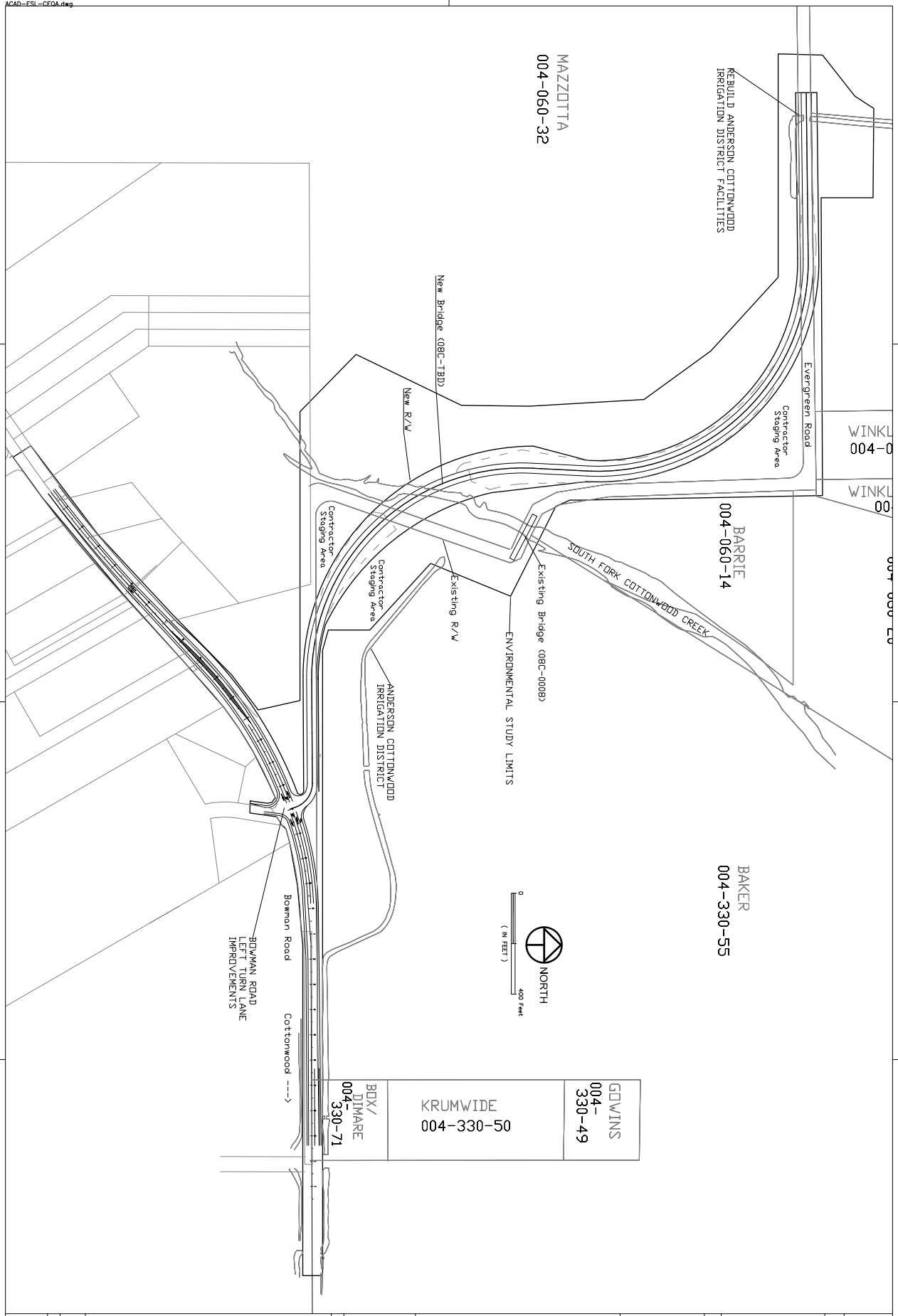
North State Resources, Inc.

Evergreen Road Bridge Replacement Project

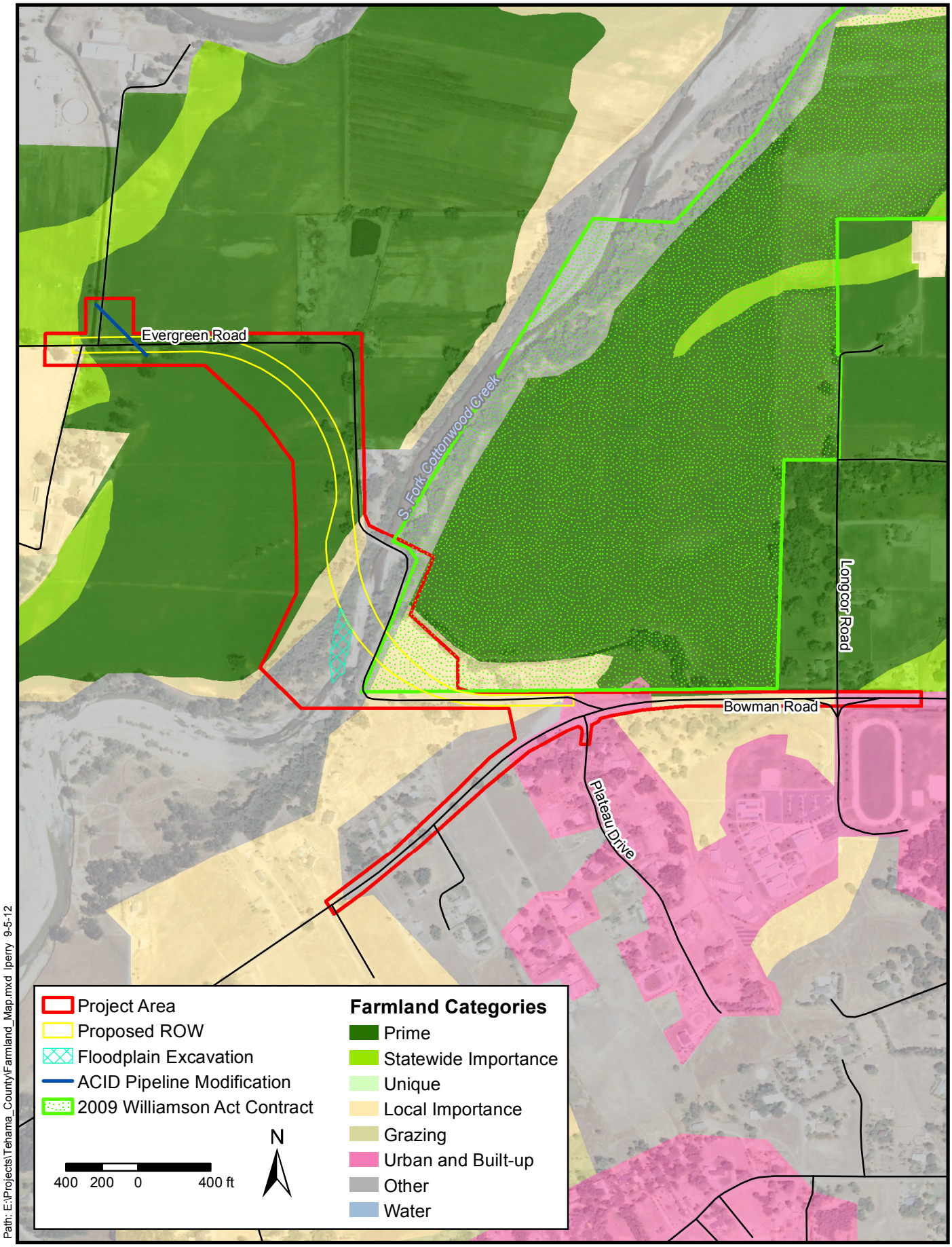
Figure 1.
Project Location and Vicinity

P:\316581 Evergreen Rd @ SF Ctnwd Crk\Environmental\APE\ACAD-ESL-CEQA.dwg9/13/2012

ACAD-ESL-CEQA.dwg



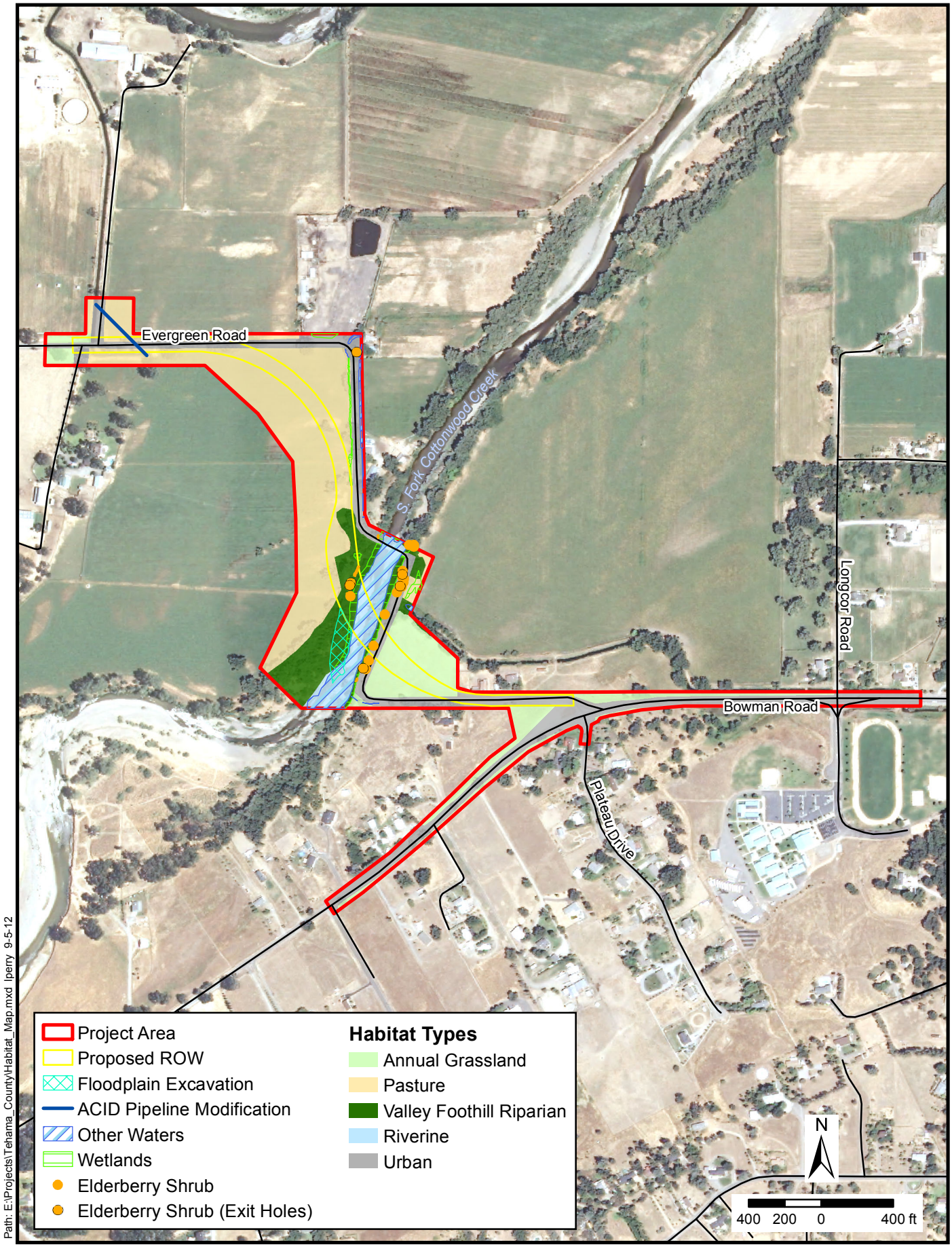
ESL 01/01	SHEET NO. / PAGE NO.	PROJECT NO.: 316581	EVERGREEN ROAD @ SF COTTONWOOD CREEK FIGURE 2 APE/Project Design	SCALE: HORIZ: AS SHOWN; VERT:	TEHAMA COUNTY PUBLIC WORKS 9380 San Benito Ave. Gerber, Ca 96035 (530) 385-1462	These drawings are instruments of service provided by the Tehama County Public Works Dept. and are not to be used for any type of construction unless signed and sealed by a Professional Engineer in the employ of the County of Tehama	No. / REVISION: / BY: / DATE:
				DRAWN BY: KSR; DATE: 5/31/2012; CHECKED BY:			
				DATE:			



North State Resources, Inc.

Evergreen Road Bridge Replacement Project

Figure 3.
Farmland in Project Area



Path: E:\Projects\Tehama_County\Habitat_Map.mxd Iperry 9-5-12

North State Resources, Inc.

Evergreen Road Bridge Replacement Project

Figure 4.
Habitat Types and Waters in Project Area

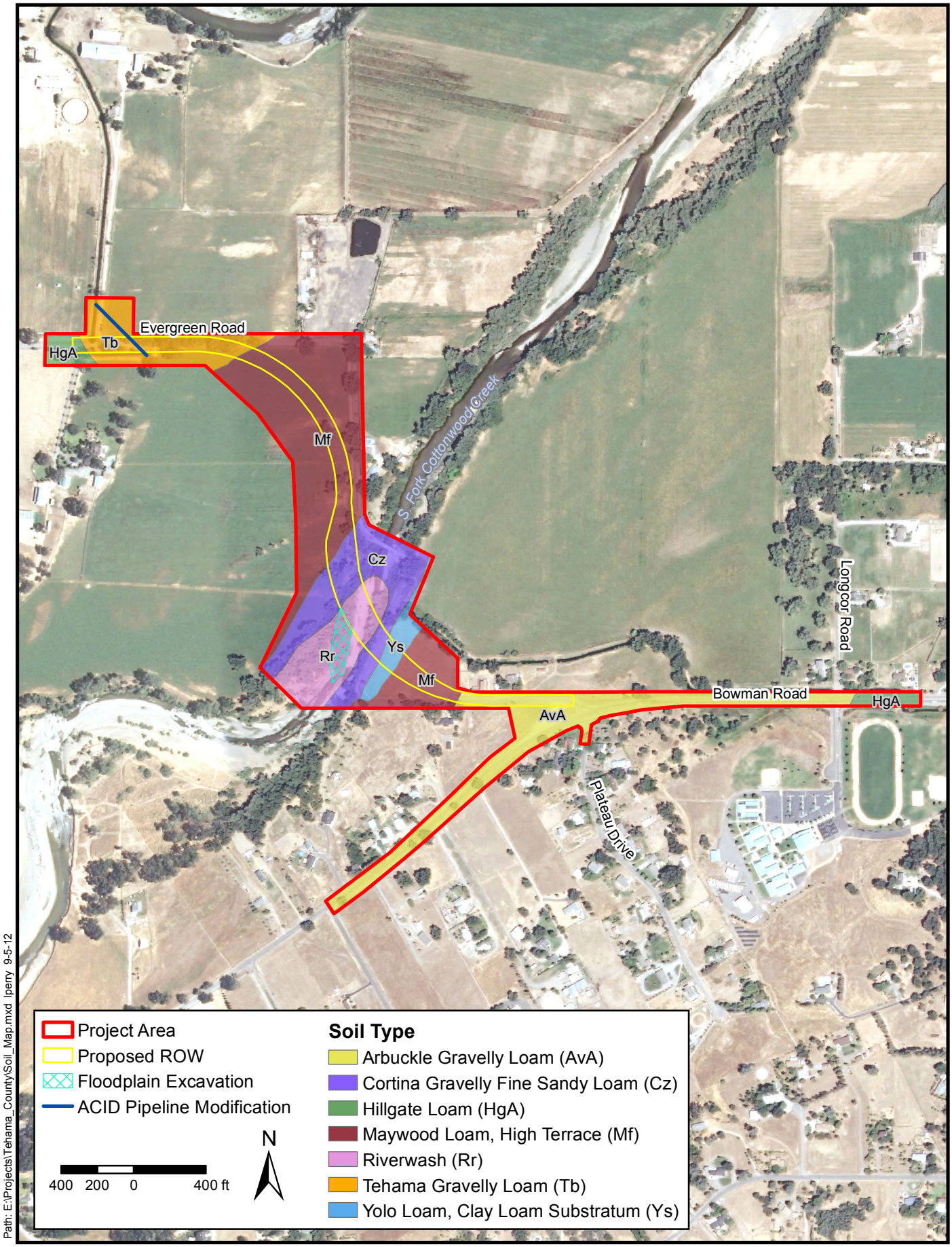


Figure 5.
Soil Types in Project Area

APPENDIX B

Special-Status Species Table and Lists

The following table lists the special-status species with potential to occur in the region and identifies their potential to occur in the project area based on background research, nearby documented occurrences, presence/absence of suitable habitat, and fieldwork. Species in **bold** have potential to occur in the project area and are further discussed in the Initial Study. Lists used to develop this table were obtained from the California Natural Diversity Database, California Native Plant Society Inventory of Rare and Endangered Plants, and U.S. Fish and Wildlife Service species lists. These lists are included at the end of the table.

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Plants					
Anomobryum julaceum	Slender silver moss	-/2.2	Grows on damp rocks and soil in broadleafed upland forest, lower montane coniferous forest, and north coast coniferous forest; 330-3,280 ft	A	No suitable habitat present.
Carex scoparia var. scoparia	Pointed broom sedge	-/2.2	Wet, open areas in Great Basin scrub; 425-3,280 ft	A	No suitable habitat present.
Castilleja rubicundula ssp. rubicundula	Pink creamsacs	-/1B.2	Openings in chaparral or grasslands on serpentine, meadows and seeps; 65-2,950 ft	A	Species not detected during botanical surveys in 2005; one occurrence documented approximately 2.5 miles northwest of the project area (CDFG 2012).
Chamaesyce hooveri	Hoover's spurge	T/1B.2	Vernal pools in valley and foothill grassland; 80-430 ft	A	No suitable habitat present.
Cryptantha crinita	Silky cryptantha	-/1B.2	Valley and foothill grasslands, cismontane woodland, riparian forest; gravelly streambeds; 280-720 ft. Blooms April-May.	A	Species not detected during botanical surveys in 2005; six occurrences documented within 5 miles of the project area (CDFG 2012).
Downingia pusilla	Dwarf downingia	-/2.2	Valley and foothill grassland (mesic), vernal pools and roadside ditches; 0-1,590 ft. Blooms March-May.	A	No suitable habitat present; species not detected during botanical surveys in 2005.
Fritillaria pluriflora	Adobe-lily	-/1B.2	Chaparral, cismontane woodland, foothill grassland; usually on clay soils, sometimes on serpentine; 180-2,690 ft	A	Species not detected during botanical surveys in 2005; no occurrences within 10 miles (CDFG 2012).

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Gratiola heterosepala	Boggs Lake hedgehyssop	-/E,1B.2	Vernal pools, marshes, swamps; clay soils; 15-7,870 ft	A	No suitable habitat present.
Howellia aquatilis	Water howellia	T/2.2	Freshwater marshes and swamps in lower montane coniferous forest; 0-4,500 ft	A	No suitable habitat present.
Juncus leiospermus var. ahartii	Ahart's dwarf rush	-/1B.2	Edges of vernal pools; 100-330 ft	A	No suitable habitat present.
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	-/1B.1	Vernally mesic sites in chaparral, valley and foothill grassland, cismontane woodlands; 100-3,350 ft	A	No suitable habitat present; one occurrence documented approximately 2.5 miles northwest of the project area (CDFG 2012).
Legenere limosa	Legenere	-/1B.1	Beds of vernal pools; 0-2,890 ft	A	No suitable habitat present.
Limnanthes floccosa ssp. californica	Butte County (Shippee) meadowfoam	E/E,1B.1	Vernal pools in valley and foothill grassland; 160-3,050 ft	A	No suitable habitat present.
Orcuttia pilosa	Hairy Orcutt grass	E/E,1B.1	Vernal pools; 80-410 ft	A	No suitable habitat present.
Orcuttia tenuis	Slender Orcutt grass	T/E,1B.1	Vernal pools; 100-5,690 ft	A	No suitable habitat present.
Paronychia ahartii	Ahart's paronychia	-/1B.1	Swales and vernal pools in valley and foothill grassland and cismontane woodland habitats; 100-1,670 feet. Blooming Period: April-June.	A	No suitable habitat present.
Tuctoria greenei	Greene's tuctoria	E/R,1B.1	Vernal pools in valley and foothill grassland; 100-3,500 ft	A	No suitable habitat present.
Fish					
Acipenser medirostris	Green sturgeon	T/SC	Found in Sacramento River and its tributaries; preferred spawning substrate ranges from clean sand to bedrock	A	Suitable habitat is not present in South Fork Cottonwood Creek near the project area.
Hypomesus transpacificus	Delta smelt	T/T	Found in the Sacramento-San Joaquin Delta	A	The project area is outside the species' known range.

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Oncorhynchus mykiss	**Central Valley steelhead ESU**	**T/-**	**Spawn and rear in Sacramento River and its tributaries; require cool, swift shallow water and clean, loose gravel for spawning; use runs and suitable large pools to rear**	**HP**	**Suitable habitat is present in the creek; nearest documented occurrence is 10 miles north of the project area in a tributary to the Sacramento River (CDFG 2012).**
Oncorhynchus tshawytscha	Sacramento River winter-run chinook salmon ESU	E/E	Spawn and rear in mainstem Sacramento River; requires deep pools and riffles and clean gravel and cobble substrate to spawn	A	The species is not known to occur in South Fork Cottonwood Creek; the project area is outside the species' known range.
Oncorhynchus tshawytscha	**Central Valley spring-run chinook salmon ESU**	**T/T**	**Spawn and rear in main-stem Sacramento River and suitable perennial tributaries; require cool year-round water temperatures and deep pools for over-summering habitat; spawn in riffles with gravel and cobble substrate**	**HP**	**This species is known to spend summers in the South Fork Cottonwood Creek, upstream of the project area; nearest documented occurrence is 10 miles north of the project area in a tributary to the Sacramento River (CDFG 2012).**
Invertebrates					
Branchinecta conservatio	Conservancy fairy shrimp	E/-	Large turbid pools in grasslands in the northern two-thirds of the Central Valley	A	No suitable habitat present.
Branchinecta lynchi	Vernal pool fairy shrimp	T/-	Swales and depression pools in grasslands	A	No suitable habitat present.
Desmocerus californicus dimorphus	**Valley elderberry longhorn beetle**	**T/-**	**Elderberry shrubs associated with riparian forests that occur along rivers and streams.**	**P**	**Elderberry shrubs with exit holes are found in the project area; nearest documented occurrences are approximately 7 miles east along the Sacramento River (CDFG 2012).**
Lepidurus packardi	Vernal pool tadpole shrimp	E/-	Vernal pools and swales in grasslands	A	No suitable habitat present.
Pacifastacus fortis	Shasta crayfish	E/E	Fall and Hat Creek drainages in the Pit River system	A	The project area is outside the species' known range.

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Amphibians					
Rana boylii	**Foothill yellow-legged frog**	**-/SC**	**Rocky streams in a variety of habitats; requires a permanent water source and cobble-sized substrates**	**HP**	**Suitable habitat is found in the South Fork Cottonwood Creek; nearest documented occurrence is 12 miles southeast of the project area (CDFG 2012).**
Rana draytonii	California red-legged frog	T/SC	Require aquatic habitat for breeding, uses riparian and upland habitats for traveling; adults require dense, shrubby or emergent vegetation associated with deep-water pools with fringes of cattails and dense stands of overhanging vegetation	A	No suitable habitat present for breeding; species not known to occur in the region.
Spea hammondii	Western spadefoot	-/SC	Grasslands and valley foothill hardwood woodlands; requires vernal pools for breeding and egg laying	A	No suitable habitat present for breeding; one occurrence documented 2.5 miles southeast of project area (CDFG 2012).
Reptiles					
Emys marmorata	**Western (northwestern) pond turtle**	**-/SC**	**Slow water aquatic habitat with available basking sites in uplands**	**HP**	**Suitable habitat is present along the South Fork Cottonwood Creek and in adjacent upland habitats; nearest known occurrence is approximately 8 miles to the east along the Sacramento River (CDFG 2012).**
Thamnophis gigas	Giant garter snake	T/T	Prefers freshwater marsh and low gradient streams; may be found in drainage canals and irrigation ditches	A	The project area is outside the species' known range.
Birds					
Agelaius tricolor	Tricolored blackbird	-/SC	Colonial species that breeds near open water in dense emergent vegetation	A	Dense, emergent vegetation not present in project area.

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Athene cunicularia hypugaea	Western burrowing owl	-/SC	Open, dry grasslands and ruderal habitats with ground squirrel burrows	A	No suitable habitat present.
Buteo swainsoni	Swainson's hawk	-/T	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands; forages in grasslands and agricultural lands with rodent populations	A	The project area is outside the species' known range.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	C/E	Riparian forest nester along the broad, lower flood-bottoms of larger river systems; requires dense riparian forest	A	No suitable habitat present; South Fork Cottonwood Creek is not a large river system.
Dendroica petechia brewsteri	**California yellow warbler**	**-/SC**	**Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods**	**HP**	**Suitable riparian habitat present along the South Fork Cottonwood Creek; project area is on the edge of the species' known breeding range.**
Haliaeetus leucocephalus	**Bald eagle**	**-/E, FP**	**Requires large bodies of water for foraging and large trees near open water for nesting and resting**	**HP**	**Breeding habitat is absent but foraging habitat is present along the South Fork Cottonwood Creek; the nearest documented occurrence of this species is approximately 3 miles to the east along Cottonwood Creek (CDFG 2012).**
Icteria virens	**Yellow-breasted chat**	**-/SC**	**Breeds in riparian habitats with dense understory vegetation, such as willow and blackberry**	**HP**	**Suitable riparian habitat present along the South Fork Cottonwood Creek; project area is in species' known breeding range.**
Riparia riparia	Bank swallow	-/T	Colonial nester in vertical banks near streams, rivers, and lakes	A	No suitable habitat present.
Strix occidentalis caurina	Northern spotted owl	T/SC	Old-growth forests or mixed stands of old-growth and mature trees	A	No suitable habitat present.

Scientific Name	Common Name	Status[1] (Fed/State)	General Habitat Description	Potential[2]	Rationale
Mammals					
Antrozous pallidus	**Pallid bat**	**-/SC**	**Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops and rocky crevices in mines and caves**	**HP**	**May forage in the project area, but not likely to roost; nearest documented occurrence is 9 miles southeast of the project area.**
Eumops perotis californicus	Western mastiff bat	-/SC	Forages in open semi-arid to arid habitats; roosts in cliff faces, buildings, trees, and tunnels	A	No suitable habitat present.
Lasiurus blossevillii	**Western red bat**	**-/SC**	**Forages in open areas; roosts in trees in a variety of habitat types**	**HP**	**May forage and roost in the project area; nearest documented occurrence is 6 miles northeast of the project area.**
Martes pennanti	Fisher	C/SC	Intermediate to large tree stages of coniferous forests and deciduous riparian areas with high percent canopy closure	A	No suitable habitat present.
Vulpes vulpes necator	Sierra Nevada red fox	-/T	Prefers forests interspersed with meadows or alpine fell-fields	A	No suitable habitat present.

[1] Federal and State Codes: E = Endangered; T = Threatened; C = Candidate; SC = Species of Special Concern; FP = Fully Protected

California Rare Plant Rank: List 1B = Plants rare, threatened, or endangered in California and elsewhere; List 2 = Plants rare, threatened, or endangered in California but more common elsewhere.

[2] Potential: P = present, species documented in the project area; HP = habitat present, species may occur in the project area; A = absent, species not likely to occur in the project area

Source: California Department of Fish and Game (CDFG). 2012. California natural diversity database. Last updated April 2012.

APPENDIX C

Greenhouse Gas Emissions Modeling (Thomes Creek Project)

The following tables were extracted from the Initial Study/Mitigated Negative Declaration for the 99W at Thomes Creek Bridge Project, prepared by HDR, Inc. for Tehama County Public Works. The proposed project evaluated in this Initial Study is similar in nature and construction details to the Thomes Creek Project, although less construction equipment and personnel would be expected for the proposed project, resulting in fewer overall emissions.

HDR used the NONROAD model from the U.S Environmental Protection Agency (EPA) to estimate greenhouse gas emissions for the Thomes Creek Project. The NONROAD emission inventory model is a software tool promoted by the EPA for predicting emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, particulate matter, and sulfur dioxides from small and large nonroad vehicles, equipment, and engines. The EPA's NONROAD Model was used with national average horsepower ratings and vehicle loads (presented in Tables 3.7-1 and 3.7-2).

Table 3.7-1 Horsepower Ratings and Loads Included in Nonroad Model

	Avg HP	***Load Factor***	***Avg Hrs/Yr***	***CO2 g/hp-hr***	***FuelCons lb/hp-hr***	***CO2 lb/year/ unit***	***FuelCons lb/year/ unit***	***CO2 lb/hour/ unit***	***FuelCons lb/hour/ unit***
Diesel Excavators	171	0.59	1,092	541.4	0.3745	131,527	41,308	120.4	37.83
Diesel Excavators	171	0.59	1,092	541.4	0.3745	131,527	41,308	120.4	37.83
Diesel Excavators	171	0.59	1,092	541.4	0.3745	131,527	41,308	120.4	37.83
Diesel Crawler									
Tractor/Dozers	260	0.59	936	539.3	0.3731	170,458	53,538	182.1	57.20
Diesel Graders	204	0.59	962	537.2	0.3716	137,283	43,116	142.7	44.82
water wagons									
highway dump trucks									
Concrete Mixer									
Delivery Trucks									
Diesel Bore/Drill Rigs	176	0.43	466	539.0	0.3734	41,776	13,139	89.6	28.20
lubricating truck									
Diesel Rubber Tire Loaders	243	0.59	761	539.4	0.3732	129,379	40,645	170.0	53.41
Diesel Cranes	231	0.43	990	532.7	0.3686	115,326	36,228	116.5	36.59
Diesel Rubber									
Tire Loaders	243	0.59	761	539.4	0.3732	129,379	40,645	170.0	53.41
pick-up trucks									
Diesel Pumps	53	0.43	403	567.0	0.3932	11,414	3,593	28.3	8.92

Table 3.7-2 Emissions Factors for On-Road Vehicles

Vehicle Class	*Fuel Econ (mpg)*	*(gal/mi)*	*Emission Factors g/mi*			
			CO2 kg/gal	*CO2*	*CH4*	*N2O*
LDGV	24.1	0.041	8.78	364.2	0.0156	0.0031
LDGT1	17.2	0.058	8.78	510.3	0.0218	0.0044
LDGT2	17.2	0.058	8.78	510.3	0.0218	0.0044
HDGV	9.5	0.105	8.78	923.9	0.0395	0.0079
LDDT	19.0	0.053	10.21	537.2	0.0218	0.0044
HDDV	7.2	0.139	10.21	1,417.6	0.0575	0.0115

Notes: Light-Duty Gasoline Vehicles (i.e., passenger cars) does not include SUVs, vans or pickups.
Light-Duty Gasoline Trucks 1 (0-6,000 lbs GVW - includes pickup trucks, sport utility vehicles and vans).
Light-Duty Gasoline Trucks 3 (6,001-8,500 lbs. GVW - includes pickup trucks, sport utility vehicles and vans).
Class 2b Heavy-Duty Gasoline Vehicles (8501-19,500 lbs GVW).
Light-Duty Diesel Trucks 3 and 4 (6,001-8,500 lbs GVW).
Class 5 & 8 Heavy-Duty Diesel Vehicles (16,001-60,000 lbs GVW).

The results of the NONROAD model run for the Thomes Creek Project are presented in Table 3.7-3.

Table 3.7-3 Project-Related GHG Emissions Estimates

Count	*Activity*	*Units*	*Equipment type*	*CO2 (lb)*	*CO2 (kg)*	*CO2 (Tonne)*
2	240	Hours	Hydraulic excavators	57,814	26,224	26
2	240	Hours	Long-stick excavators	57,814	26,224	26
2	240	Hours	Utility excavators	57,814	26,224	26
2	240	Hours	Bulldozers (D-8 or smaller)	87,414	39,651	40
2	240	Hours	Graders	68,499	31,071	31
2	3,000	Miles	Water wagons	18,751	8,505	9
20	800	Miles	Highway dump trucks	50,002	22,681	23
20	1,200	Miles	Concrete mixer delivery trucks	75,004	34,022	34
1	240	Hours	Drill rig	21,515	9,759	10
1	3,000	Miles	Lubricating truck	3,553	1,612	2
1	240	Hours	Front-end loader	40,803	18,508	19
1	240	Hours	Truck-mounted crane	27,958	12,682	13
3	240	Hours	Integrated tool carriers	122,409	55,525	56
10	20,000	Miles	Pick-up trucks	225,009	102,064	102
1	1,200	Hours	Pump	33,986	15,416	15
			Total	**948,344**	**430,169**	**430**

APPENDIX D

Mitigation Monitoring and Reporting Plan

Mitigation Monitoring and Reporting Plan
for the
Evergreen Road at South Fork Cottonwood Creek Bridge Project

CEQA Lead Agency:
Tehama County

Prepared: September 2012

Adopted by Board of Supervisors on: _____

Introduction

Purpose

Tehama County Public Works has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Evergreen Road at South Fork Cottonwood Creek Bridge Project. The proposed project would install a new bridge just upstream of the existing bridge and realign a segment of Evergreen Road; the project is described in more detail in the IS.

The proposed project includes implementation of standard construction measures to minimize adverse effects on the environment, and the IS/MND identified several mitigation measures that are required in addition to the standard construction measures to reduce potentially significant impacts to less-than-significant levels. This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that the mitigation measures are implemented in conjunction with the project. Tehama County, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The County will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

The legal basis for the development and implementation of the MMRP is found in CEQA. Under CEQA, California Public Resources Code (PRC) Sections 21002 and 21002.1 state the following:

- Public agencies are not to approve projects, as proposed, if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.

- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.

Also under CEQA, California PRC Section 21081.6 requires the following:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.

- The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance with mitigation measures during project implementation to mitigate or avoid significant environmental effects.

Format of Plan

This MMRP identifies the standard construction measures included as part of the proposed project and lists the mitigation measures identified in the IS/MND that are required to avoid potentially significant environmental effects. For the mitigation measures, a monitoring and reporting plan is described to identify the timing and implementation responsibility of each measure and track completion of the measure. The standard construction measures and mitigation measures will be part of the contractor specifications, and the contractor will be responsible for being familiar with and implementing each measure. The County will also enforce implementation of the standard construction measures and monitor their status.

Standard Construction Measures

The following standard construction measures are required by Caltrans Standard Specifications (latest edition is 2010), California Codes, or other agency policies and regulations:

- Temporary traffic control measures will be implemented in accordance with Section 12 of the Caltrans Standard Specifications and will include the use of flaggers, traffic-handling equipment and devices, traffic control systems, temporary pavement delineators, and other applicable measures.

- Traffic will be maintained through the work zone pursuant to Section 12-4 of the Caltrans Standard Specifications.

- Discharges of stormwater from the project must comply with National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ as modified by 2010-0014-DWQ, NPDES No. CAS000002) and Section 13 of the Caltrans Standard Specifications.

- In compliance with the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the project. The plan will include best management practices (BMPs) to implement during construction, monitoring and reporting requirements, and any other items required by the Regional Water Quality Control Board (RWQCB) or Caltrans. Typical BMPs from Caltrans' *Construction Site Best Management Practices Manual* (2003) include:

    - Temporary soil stabilization measures, such as hydraulic mulch, hydroseeding, soil binders, straw mulch, or erosion control blankets;

    - Temporary sediment control measures, such as silt fencing, sediment basin or trap, fiber rolls, or straw bales;

    - Wind erosion control measures;

- Non-stormwater management practices, such as water conservation practices, dewatering operations, vehicle and equipment cleaning and fueling, and structure removal over water;

- Waste management and materials pollution control measures, such as stockpile management, spill prevention and control, and solid and hazardous waste management.

- Pursuant to Section 13-4.03B of the Caltrans Standard Specifications, material or waste storage areas will be kept clean, well organized, and equipped with enough cleanup supplies for the material being stored. Spill and leak prevention procedures will be implemented for chemicals and hazardous substances stored in the work area. As soon as it is safe, spills of petroleum materials and sanitary and septic waste substances listed under 40 CFR, parts 110, 117, and 302, will be contained and cleaned up. Section 14-11 measures will be implemented whenever spills or leaks produce hazardous waste, which includes proper hazardous waste handling and emergency procedures in compliance with 40 Code of Federal Regulations Section 262.34(d)(5)(iii).

- Pursuant to Section 13-4.03C(3) of the Caltrans Standard Specifications, water pollution control practices will be implemented within 72 hours of stockpiling material or before a forecasted storm event, whichever occurs first. If stockpiles are being used, soil, sediment, or other debris will not be allowed to enter storm drains, open drainages, and watercourses. Active and inactive soil stockpiles must be covered with soil stabilization material or a temporary cover and surrounded with a linear sediment barrier.

- All dewatering activities will be conducted in compliance with the Caltrans *Field Guide for Construction Site Dewatering* and Section 13-4.03G of the Caltrans Standard Specifications. Measures include: ensuring that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials; discharging the water within the project limits; disposing of the water if it cannot be discharged within project limits due to site constraints or contamination; not discharging stormwater or non-stormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface; and notifying the Caltrans Engineer immediately upon discovering any such condition.

- Discovery of archaeological resources in the work area will comply with Section 14-2.02 of the Caltrans Standard Specifications. Measures include: not disturbing the resources; immediately stopping all work within a 60-foot radius of the discovery; protecting the discovery area; notifying Caltrans and the County; not moving archaeological resources or taking them from the work area; and not resuming work within the discovery area until authorized. Caltrans or the County will provide a qualified archaeologist to evaluate the resources and determine appropriate measures for protection or avoidance to ensure no significant impacts occur. The project contractor shall implement all mitigation measures recommended by the archaeologist to avoid adverse impacts to the resource. (Since, as set forth in Section 3.5, no archeological resources are expected in the project area, more specific mitigation measures cannot feasibly be developed unless and until any unforeseen resource is actually discovered and evaluated.)

- The discovery or disturbance of cultural materials or human remains will comply with California Health and Safety Code Section 7050.5, which requires that activities cease if human remains are discovered and that the County Coroner be contacted to evaluate the remains, and California Public Resources Code Sections 5097.5, which protects cultural resources, human remains, and paleontological resources from destruction on public lands (including lands under the jurisdiction of a County). The California Codes identify penalties for non-compliance.

- Pursuant to Section 14-6.04 of the Caltrans Standard Specifications, all life stages of anadromous fish in streams will be protected and work activities will be conducted to allow free passage of anadromous migratory fish. Construction work cannot produce sound in water that results in unauthorized take of listed species.

- Pursuant to Section 14-8.02 of the Caltrans Standard Specifications, noise in the work area cannot exceed 86 A-weighted decibels (dBA, Lmax) at 50 feet from the work area between 9 p.m. and 6 a.m. Equipment will be equipped with an internal combustion engine with the manufacturer-recommended muffler and will not be operated in the work area without the appropriate muffler.

- Pursuant to Section 14-9.03 of the Caltrans Standard Specifications, dust control measures will be implemented to prevent or alleviate dust by applying water, dust palliative, or both and by covering active and inactive stockpiles. Construction activities will comply with air pollution control rules, regulations, ordinances, and statutes that apply to the project. Excavation, transportation, and handling of material containing hazardous waste or contamination must result in no visible dust migration (Section 14-11.02C). A water truck or tank will be kept at the work area at all times while clearing, grubbing, and performing earthwork operations in work areas containing hazardous waste or contamination.

- Pursuant to California Vehicle Code, Section 23114, all trucks hauling soil and other loose material to and from the work area will be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).

- Pursuant to Section 14-10 of the Caltrans Standard Specifications, solid waste will be managed to prevent litter, trash, or debris accumulation anywhere in the work area, including storm drain grates, trash racks, and ditch lines. All litter, trash, and debris will be picked up from the work area at least once a week. If practicable, nonhazardous waste and excess material will be recycled; if recycling is not practicable, it will be properly disposed. All hazardous waste will be handled, stored, and disposed of in compliance with 22 California Code of Regulations, Division 4.5.

- The removal of the existing Evergreen Road Bridge will comply with Section 15-4 of the Caltrans Standard Specifications.

- All safety and health requirements set forth by the Occupational Safety and Health Administration will be followed. In addition, to prevent wildfires, the contractor would use construction equipment equipped with fire prevention devices, such as spark arrestors, pursuant to Public Resources Code 4442.

Mitigation Measures and Monitoring Requirements

Table MMRP-1 includes the following items to track completion of each mitigation measure:

- **Mitigation Measure:** presents the mitigation measures identified in the IS/MND for each potentially significant impact.
- **Timing:** identifies when the mitigation measures will be implemented.
- **Responsible Party:** references the entity responsible for implementing and monitoring the mitigation measure.
- **Verification:** provides spaces to be initialed and dated by the individual responsible for verifying compliance with each specific mitigation measure.

Noncompliance Complaints

Complaints of noncompliance with adopted mitigation measures shall be directed to the County in written form, providing specific information on the alleged violation. If any complaints are received, the County shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the County shall take the appropriate action to remedy the violation. The person filing the complaint shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

Complaints should be directed to the Tehama County representative:

Kevin Rosser, Civil Engineer
9380 San Benito Avenue
Gerber, CA 96035
Phone: (530) 385-1462, ext. 3051

This page intentionally left blank.

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
Air Quality			
Mitigation Measure AIR-1: Implement dust and emissions control measures during construction activities. The County shall ensure that the construction contractor implements the dust and emissions control measures listed below, in addition to the construction measures described as part of the proposed project, and complies with the Tehama County APCD rules and regulations. The APCD is currently in the process of adopting an Indirect Source Review Program, which will provide mitigation measures for reducing short-term air quality impacts for projects in the county. Because those measures have not yet been adopted, the measures listed below are derived from the APCD CEQA Handbook and other air district practices. The following standard measures are identified by the APCD (2009) to reduce emissions during construction activities: ▪ Construction equipment shall be maintained in proper tune according to manufacturer's specifications. ▪ Diesel construction equipment meeting CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines shall be used. ▪ Construction equipment shall be registered in the CARB DOORS program (www.arb.ca.gov/msprog/ordiesel/ordiesel.htm) and meet all applicable standards for replacement or retrofit. ▪ All portable equipment, rated over 50 brake horse power, shall be registered in the Portable Equipment Registration Program (www.arb.ca.gov/portable/portable.htm). The owner/operator shall be responsible for arranging appropriate consultations with CARB or the APCD to determine registration and permitting requirements prior to equipment operation at the project area. The following measures will be incorporated into a Fugitive Dust Control Plan for the project, which will be reviewed and approved by	During construction	Construction contractor (implementation) Tehama County (monitoring/enforcement) Tehama County APCD (enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
the APCD: ▪ Water shall be applied by means of truck(s), hoses, and/or sprinklers as needed prior to any land clearing or earth movement to minimize dust emission. ▪ Haul vehicles transporting soil into or out of the property shall be covered. ▪ Water shall be applied to disturbed areas a minimum of two times per day or more as necessary. ▪ All visibly dry disturbed soil surface areas of operation shall be treated with a dust palliative agent and/or watered to minimize dust emission. ▪ On-site vehicles shall be limited to a speed that minimizes dust emissions on unpaved roads. ▪ Existing roads and streets adjacent to the project area will be cleaned at least once per day unless conditions warrant a greater frequency. ▪ All visibly dry, disturbed unpaved roads shall be watered to minimize dust emission. ▪ Unpaved roads may be graveled to reduce dust emissions. ▪ Haul roads shall be sprayed down at the end of the work shift to form a thin crust. This application of water shall be in addition to the minimum rate of application. ▪ Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic, or other material may be required to further reduce dust emissions. ▪ Construction workers shall park in designated parking areas(s) to help reduce dust emissions. ▪ A publicly visible sign with the telephone number and person to contact regarding dust complaints shall be posted at the work area. The designated person shall respond to any complaints and take corrective action within 24 hours. The telephone number of the APCD shall also be visible to ensure compliance			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
with District Rule 4:1 and 4:24 (Nuisance and Fugitive Dust Emissions). In addition to the above measures, the Fugitive Dust Control Plan will include the following measures: ▪ All grading operations shall be suspended when winds carry dust beyond the property line despite implementation of all feasible dust control measures. ▪ The work area shall be watered as directed by the Tehama County Department of Public Works or APCD (see above) and as necessary to prevent fugitive dust violations and off-site dust impacts. ▪ An operational water truck shall be on-site at all times. ▪ On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce windblown dust emissions. Approved nontoxic soil stabilizers will be used according to manufacturer's specifications in all inactive work areas. ▪ All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions. ▪ To prevent track-out, wheel washers shall be installed where project vehicles and equipment exit onto paved streets from unpaved roads. Vehicles and equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out. ▪ Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project area. ▪ Temporary traffic control will be applied as needed during all phases of construction to improve traffic flow, as deemed			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
appropriate by the Department of Public Works and/or Caltrans, and to reduce vehicle dust emissions. ▪ Traffic speeds on all unpaved surfaces will be reduced to 15 miles per hour or less and access will be restricted to reduce unnecessary vehicle traffic. Appropriate training, on-site enforcement, and signage will be implemented. ▪ No open burning of vegetative waste (natural plant growth wastes) or other materials (trash, demolition debris et al.) may be conducted at the project area. Materials also may not be hauled off-site for disposal by open burning. Vegetative wastes shall be chipped or delivered for waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. Other emissions reduction measures to be implemented include: ▪ Vehicle and equipment idling times will be limited to 10 minutes to save fuel and reduce emissions. ▪ Existing power sources (e.g., power poles) or clean fuel generators will be used instead of temporary power generators. ▪ A comprehensive inventory list (i.e., make, model, engine year, horsepower, and emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower and greater), including owned, leased, and subcontractor vehicles, that will be used an aggregate of 40 or more hours will be assembled for the project. This list will be submitted to the APCD with a plan that demonstrates how the heavy-duty off-road equipment will achieve a project-wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction.			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
Biological Resources			
Mitigation Measure BIO-1: Implement measures to avoid disturbance to elderberry shrubs during construction. The County shall require the construction contractor to implement the measures identified below during construction to avoid and minimize impacts on all elderberry shrubs that will be protected in place in the project area (i.e., those that will not be directly affected and require transplanting or removal as identified in Table 3 of the IS/MND). These measures may be made more specific during consultation with the USFWS (but will not be made less stringent), and any more stringent measures required by the USFWS will supersede measures identified below. ▪ A worker awareness training program for construction personnel shall be conducted by a qualified biologist prior to beginning construction activities. The program shall inform all construction personnel about the life history and status of the beetle, requirements to avoid damaging the elderberry plants, and the possible penalties for not complying with these requirements. Written documentation of the training shall be submitted to the USFWS within 30 days of its completion. ▪ All areas to be avoided during construction activities, specifically the 100-foot buffer zone around elderberry shrubs that can be completely avoided during construction, shall be fenced and flagged. For elderberry shrubs that cannot be completely avoided and where encroachment on the 100-foot buffer has been approved by the USFWS, high visibility orange fencing and/or k-rails shall be placed at the greatest possible distance from the shrubs, but not less than 20 feet. ▪ Signage shall be erected every 50 feet along the edge of avoidance areas with the following information: “This area is habitat of the valley elderberry longhorn beetle, a federally threatened species, and must not be disturbed. This species is	Prior to and during construction	Construction contractor (implementation) Designated biologist (implementation/monitoring) Tehama County (monitoring/enforcement) USFWS (enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signage shall be clearly readable from a distance of 20 feet and shall be maintained for the duration of construction. ▪ Pre-construction and post-construction surveys shall be completed for the elderberry shrubs in the project area. Pre-construction surveys shall document compliance with mitigation measures. The post-construction survey shall verify that no additional impacts to any of the elderberry shrubs took place. ▪ Temporary construction impacts within the buffer area (area within 100 feet of elderberry shrubs) shall be restored. If any portion of the buffer area is temporarily disturbed during construction, it shall be revegetated with native plants and erosion control shall be provided. Buffer areas shall continue to be protected after construction from adverse effects of the project. The Tehama County Public Works Department shall retain a qualified biologist to prepare a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed and submit it to the USFWS. Measures such as fencing, signs, weeding, and trash removal shall be implemented as appropriate. ▪ No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level. All drainage water during and following construction shall be diverted away from the elderberry shrubs. ▪ Mowing of grass can occur between July through April to reduce fire hazard; however, no mowing should occur within 5 feet of elderberry shrub stems. Mowing shall be conducted in such a manner that avoids damaging shrubs. Dirt roadways and other areas of disturbed bare ground within 100 feet of elderberry shrubs shall be watered at least twice a			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
day to minimize dust.			
Mitigation Measure BIO-2: Implement measures to transplant or compensate for removed elderberry shrubs. Tehama County shall compensate for the loss of elderberry shrubs as a result of the proposed project in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999) and either transplant removed shrubs to a location acceptable to the USFWS or provide payment into a conservation bank for elderberry shrubs. The specific compensation requirement will be identified during Caltrans' consultation with the USFWS and will depend on the actual number of elderberry shrubs and stems removed during construction (seven known shrubs fall within the ROW and may require removal, depending on the specific road alignment within the ROW). All elderberry shrubs that must be removed will be fully compensated for through transplanting or payment into a conservation bank, as outlined below. If transplanting of any elderberry shrubs is approved by the USFWS, the transplantation guidelines outlined in the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* that dictate the necessary timing and details of the transplanting will be followed. At the discretion of USFWS, shrubs that are unlikely to survive transplantation because of poor condition or location or that would be extremely difficult to move because of access problems may be exempted from transplantation; these would require replacement at a conservation bank. The following measures will be adhered to during transplanting activities: ▪ Elderberry shrubs shall be transplanted during the dormant season, approximately November through the first two weeks in February, after they have lost their leaves. Any elderberry shrubs that cannot be transplanted prior to February 15 will be transplanted prior to March 15 or after June 15 to avoid working within the flight season for the valley elderberry longhorn beetle. No elderberry shrubs will be transplanted between March 15	Prior to and during construction	Designated biologist (implementation) Tehama County (implementation/monitoring/ enforcement) USFWS (enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)

and June 15.
 	
▪ A qualified biological monitor must be on-site for the duration of the transplanting of the elderberry shrubs to insure that no unauthorized take of the beetle occurs. The monitor will immediately report any unauthorized take of the beetle or its habitat to the USFWS.
▪ The following transplanting procedures will be followed:
  ▪ The plant will be cut back 3 to 6 feet from the ground or to 50 percent of its height (whichever is taller) by removing branches and stems above this height. Any leaves remaining on the plant will be removed. The trunk and all stems measuring 1 inch or greater in diameter at ground level will be replanted.
  ▪ The plant will be excavated using a Vermeer™ spade, backhoe, front end loader, or other suitable equipment, taking as much of the root ball as possible, and will be replanted immediately at the conservation area. The plant will only be moved by the root ball. The root ball will be secured with wire and wrapped with damp burlap. The burlap will be dampened as necessary to keep the root ball wet. Care will be taken to ensure that the soil is not dislodged from around the roots of the transplant. Soil at the transplant site will be moistened prior to transplant if the soil at the site does not contain adequate moisture.
  ▪ A hole will be excavated of adequate size to receive the transplant.
  ▪ The planting area will be at least 1,800 square feet for each elderberry transplant. The root ball will be planted so that its top is level with the existing ground. Soil will be compacted sufficiently so that settlement does not occur. As many as five additional elderberry plantings (cuttings or seedlings) and up to five associated native species plantings may also			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
be planted within the 1,800 square foot area with the transplant. The transplant and each new planting will have its own watering basin measuring at least 3 feet in diameter. Watering basins should have a continuous berm measuring approximately 8 inches wide at the base and 6 inches high. ▪ Soil will be saturated with water. Fertilizers or other supplements will not be used; the effects of these compounds on the beetle are unknown. Shrubs will be monitored and watered as necessary. The use of a drip watering system, water truck, or other apparatus may be used. ▪ A mix of native plants associated with the elderberry shrubs in the project area or similar sites will be planted at a 1:1 ratio. Native plant stock will be obtained from local sources. For elderberry shrubs that cannot be transplanted or if transplanting is not the desired course of action by the USFWS, the County will replace affected elderberry shrubs at a conservation bank or area using replacement ratios established by the USFWS (1999). Each elderberry stem measuring 1 inch or greater in diameter at ground level that is directly affected by the proposed project would be replaced in a designated conservation area with elderberry seedlings or cuttings at a ratio ranging from 1:1 to 8:1 (new plantings to affected stems). The numbers of elderberry seedlings/cuttings and associated riparian native trees/shrubs to be planted as replacement habitat are determined by stem size class of affected elderberry shrubs, presence or absence of exit holes, and whether the shrub lies in a riparian or non-riparian area. Based on currently available information, proposed replacement plantings are identified in Table 4 in the IS/MND. Stock of seedlings or cuttings would be obtained from local sources and may be obtained from the affected plants if the selected conservation area is near the project area.			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
Mitigation Measure BIO-3: Implement pre-construction surveys and avoidance measures for other special-status wildlife. Tehama County shall retain a qualified biologist to conduct pre-construction surveys for special-status wildlife in and adjacent to the project area within 2 weeks prior to the onset of construction activities, as described below. The contractor will protect migratory birds, their occupied nests, and their eggs in accordance with the Migratory Bird Treaty Act and adhere to all other state and federal laws and regulations pertaining to the protection of migratory birds, raptors, amphibians, reptiles, and bats. Nesting for most birds is between February 15 and September 30, or as determined appropriate in consultation with the County biologist. ▪ Surveys for **foothill yellow-legged frog** will be conducted along South Fork Cottonwood Creek within the proposed work area and in adjacent riparian habitat. If larvae or eggs are found, the biologist shall relocate them to a suitable location outside of the construction corridor. If foothill yellow-legged frogs are detected, a biological monitor will be assigned to monitor all activities in the creek and adjacent riparian habitat. Construction activities will not be allowed to take place within 100 feet of the frog(s) until the frog(s) have left the work area. CDFG will be informed of the presence of foothill yellow-legged frog(s) in the project area. ▪ Surveys for **western pond turtle** will be conducted along the creek and within about 1,400 feet of the creek to locate nest sites and turtles. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey, the project area will be resurveyed. If a western pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid disturbing the nest. If the nest cannot be avoided, it will be excavated and reburied at a suitable location outside of the work area by a qualified biologist. If a western pond turtle is found, a biological monitor will be assigned to monitor all activities in the creek and	Prior to and during construction	Construction contractor (implementation) Designated biologist (implementation/monitoring) Tehama County (monitoring/enforcement) USFWS, CDFG (coordination/enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
within 1,400 feet of the creek to ensure the turtle is not disturbed during construction. Work will not be allowed within 100 feet of the turtle, and the biological monitor will notify the contractor when work can commence in the area where the turtle was found (i.e., once the turtle has left the area). CDFG will be informed of the presence of western pond turtle(s) in the project area. ▪ Surveys for **nesting raptors and migratory birds** will be conducted in all trees in and within 500 feet of the project area to locate active bird nests during the nesting season (February 15 and September 30). If no active nests are found, then no further action is warranted. If an active nest is found, the biologist will establish a construction-free buffer zone around the nest, extending about 50 to 100 feet from the nest, depending on the species, in consultation with the CDFG. The construction-free zone will be designated with orange construction fencing or another suitable barrier or marker approved by CDFG and labeled with signs to inform workers of the protected area. A qualified biologist shall monitor the nest(s) to determine when the young have fledged and submit status reports to the CDFG throughout the nesting season. A nest shall only be removed after the young have fledged (based on field verification by the qualified biologist). Information on the locations of nest sites shall be submitted to CDFG. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey and are scheduled during the nesting season, the project area will be resurveyed. ▪ For **cliff swallow** nesting activity, all existing unoccupied swallow nests on the existing bridge will be removed and exclusionary netting will be installed around the underside of the existing bridge before February 15 of the construction year to prevent new nests from being formed and prevent the reoccupation of existing nests. The design of the exclusionary			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
netting shall be submitted to the County for approval prior to installation. The contractor shall keep a list of all areas, including the bridge, that are free of swallow nests until notified by the County Contract Manager to cease swallow activities. The bridge will be monitored for swallow activity a minimum of three non-consecutive days per week. A weekly log will be submitted to the Caltrans responsible biologist. The contractor will continue inspections until notified by the County Contract Manager to stop inspections. If an exclusion device is found to be ineffective or defective, the contractor will complete repairs to the device within 24 hours. If birds are found trapped in an exclusion device, the biologist will immediately remove the birds in accordance with USFWS or CDFG guidelines. ▪ Surveys for **roosting bats** will be conducted in potential roost trees in the ROW prior to the onset of construction. If construction activities are delayed or suspended for more than 15 days after completion of the pre-construction survey, the project area will be resurveyed. If no active roosts are found, then no further action is warranted. If an active maternity roost is present, a qualified biologist shall determine the extent of a construction-free zone to be established around the roost, extending about 50 to 100 feet from the roost. The construction-free zone will be fenced or marked, as described for the active nests, and construction near the roost will not be allowed until a qualified biologist determines that the bats have left the roost or the maternity roosting season is over (after July 31). CDFG will also be notified of any active nurseries in the construction zone. The exclusionary netting for swallow nests is expected to also preclude roosting by bats along the existing bridge. If either a maternity roost or hibernacula are present, the following mitigation measures shall be implemented. ▪ The project shall be redesigned to avoid the loss of the occupied structure if feasible. ▪ If the project cannot be redesigned to avoid removal of the			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
occupied structure, demolition shall commence before maternity colonies form (i.e., prior to March 1) or after young are volant (flying) (i.e., after July 31). The disturbance-free buffer zones will be observed during the maternity roost season (March 1–July 31). ▪ If a non-breeding bat hibernaculum is found in a tree scheduled to be razed, the individuals shall be safely evicted, under the direction of a qualified biologist, by opening the roosting area to allow air flow through the cavity. Demolition shall then follow no less than the following day (i.e., there should be no less than one night between initial disturbance for air flow and the demolition). This action shall allow bats to leave during dark hours, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight. Trees with roosts that need to be removed shall first be disturbed at dusk, just prior to removal that same evening, to allow bats to escape during the darker hours. ▪ For any active bird nest or bat roost sites encountered, the biologist shall coordinate with the CDFG, USFWS, and County, as appropriate, to establish an appropriately sized, no-disturbance buffer around the site (e.g., 50 to 100 feet around the nest or site). No construction activities will be allowed within the buffer until the biologist determines that the site is no longer active, as described above for the nesting raptors/migratory birds and roosting bats measures. ▪ Construction personnel shall participate in a worker environmental awareness program for special-status wildlife. A qualified biologist will inform all construction personnel about the diagnostic characteristics of special-status wildlife with potential to occur in the project area and where they may be found in the project area, as well as explain the state and federal laws pertaining to protecting the species and their habitats and the consequences of not complying with the laws.			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
▪ If any special-status wildlife species are encountered during construction activities, the activity will stop in the vicinity of the individual(s) until it has safely moved outside of the work area. Any trapped, injured, or killed wildlife shall be reported immediately to the CDFG.			
Mitigation Measure BIO-4: Minimize and compensate for impacts to riparian habitat and wetlands as a result of project implementation. Tehama County shall obtain all required permits and authorizations from the USACE, RWQCB, and the CDFG prior to any direct impacts to the riparian wetlands, riparian habitat, or South Fork Cottonwood Creek and ensure that all terms and conditions of the required permits and authorizations are met. The following avoidance and minimization efforts will be incorporated into the proposed project to reduce impacts to South Fork Cottonwood Creek and the riparian wetlands and habitat: ▪ Clearing within the project area will be confined to the smallest area necessary within 200 feet of the creek to facilitate construction activities. To ensure that construction equipment and personnel do not affect sensitive habitats outside of the project area, orange barrier fencing will be erected to clearly define the edges of the work area and delineate the environmentally sensitive areas adjacent to the work area. Fencing shall be adequately maintained throughout the duration of construction and shall be removed upon completion of construction activities. ▪ Shaded riverine aquatic habitat or natural woody riparian habitat shall be avoided or preserved to the maximum extent practicable. Any temporarily disturbed riparian vegetation shall be replanted with native trees and shrubs, with appropriate irrigation, care, and monitoring to ensure that healthy riparian and shaded riverine aquatic habitat is fully established. Successful replanting is measured as 100 percent or greater	Prior to and during construction	Construction contractor (implementation) Tehama County (implementation/monitoring/ enforcement) USACE, RWQCB, CDFG (enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
replacement of original habitat function after three years. ▪ Emergent (rising out of water) and submergent (covered by water) vegetation will be retained where feasible. Rapidly sprouting plants, such as willows, shall be cut off at ground level and root systems left intact, when removal is necessary. ▪ Water quality construction measures and BMPs shall be implemented to protect water quality in the creek, as described for the proposed project and in Mitigation Measure WQ-1. Once the delineation of waters of the United States is verified by the USACE, the total amount of riparian wetlands and other waters affected by the project will be calculated. Based on the total acreage of waters of the United States affected by the project, the County shall implement the following measures: ▪ Any riparian wetlands and other waters temporarily disturbed by construction activities shall be restored, as close as practicable, to pre-construction contours and conditions. Natural regeneration of vegetation may be allowed along the creek in lieu of on-site plantings, if plantings are determined to not be feasible in the affected area. ▪ Any permanent loss of riparian wetlands shall be offset by purchasing credits (1:1 acreage ratio) at a USACE-approved mitigation bank or by payment of in-lieu fees to a USACE-approved in-lieu fee program (according to current fee schedule). Documentation of payment shall be submitted to the USACE. Once the final design plans are available, the County will calculate the total permanent effects to riparian habitat (CDFG jurisdiction, extends beyond the riparian wetlands) and calculate the on-site area available to restore riparian habitat in the former location of the bridge or other temporarily disturbed areas. The County shall develop and implement a revegetation plan to identify the extent of on-site restoration or off-site restoration via mitigation banks or in-lieu fee programs, describe planting techniques and location, and discuss monitoring strategies. Riparian habitat shall be replaced at a ratio of 3:1 (per mature, woody			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
riparian tree with a dbh of six inches or greater). The performance goal for tree replacement would be the successful establishment of at least one tree for each tree removed at five years after planting. Replacement trees (e.g., Fremont cottonwood, willows, blue elderberry) shall be planted in the appropriate season (i.e., fall or spring) following the completion of construction. For on-site restoration, propagules (i.e., tree seedlings) shall be obtained either on-site or from a local nursery and planted along South Fork Cottonwood Creek within the project area. The County shall monitor the plantings annually for no less than five years to ensure that trees have become established. Supplemental planting shall be conducted, as necessary, to ensure that the performance standard is achieved. Once riparian mitigation has been successfully completed, the County shall submit a memorandum to the CDFG documenting the results.			
Water Quality			
Mitigation Measure WQ-1: Implement measures to protect water quality during construction. Tehama County shall require the construction contractor to implement measures during construction activities to protect water quality in the South Fork Cottonwood Creek. The measures listed below shall be incorporated into the SWPPP prepared for the project. The contractor(s) conducting the work shall be responsible for constructing or implementing, regularly inspecting, and maintaining the measures in good working order. ▪ Grading operations will be conducted to eliminate direct routes for conveying potentially contaminated runoff to the creek. Erosion control barriers such as silt fences and mulching material will be installed, and disturbed areas shall be reseeded with native grasses or other plants where necessary. ▪ Ground disturbance will be minimized by conducting all work according to site-specific construction plans that identify areas	During construction	Construction contractor (implementation) Tehama County (monitoring/enforcement) RWQCB (enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
for clearing, grading, and revegetation and clearly delineate environmentally sensitive areas, such as riparian habitat, outside the work area. ▪ Riparian and wetland vegetation will be avoided wherever possible. Cleared areas will be covered with mulches, and silt fences will be installed near riparian areas or streams to control erosion and trap sediment. ▪ Disturbed soils at all construction sites and staging areas will be stabilized before the onset of the winter rainfall season. ▪ Stockpiles will be stabilized and protected from exposure to erosion and flooding. ▪ Strict on-site handling rules will be developed and implemented to keep construction and maintenance materials out of the creek and other drainages in the project area. ▪ Controlled construction staging, site entrance, concrete washout, and fueling areas will be maintained at least 100 feet away from the creek, other drainages, and wetlands to minimize accidental spills and runoff of contaminants in stormwater. All construction and building materials and fill will be stored and contained in a designated area at least 100 feet from the creek to prevent transport of materials into adjacent streams. Building materials storage areas containing hazardous or potentially toxic materials, such as herbicides and petroleum products, will have an impermeable membrane between the ground and the hazardous material and will be bermed to prevent the discharge of pollutants to ground water and runoff water. ▪ Equipment shall be re-fueled and serviced at designated construction staging areas. Refueling and servicing of equipment will be conducted with absorbent material or drip pans underneath to contain spilled fuel. Any fluid drained from machinery during servicing will be contained in leakproof containers and delivered to an appropriate disposal or recycling facility.			

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
▪ Precautions will be taken to prevent raw cement; concrete or concrete washings; asphalt, paint, or other coating material; oil or other petroleum products; or any other substances that could be hazardous to aquatic life from contaminating the soil or entering water courses. ▪ Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials shall not be allowed to enter into streams or other waters. A plan for the emergency clean up of any spills of fuel or other materials shall be available when construction equipment is in use. Spill cleanup equipment will be maintained in proper working condition. CDFG, RWQCB, Caltrans, and the County will be notified of any spills and cleanup procedures. ▪ Construction vehicles and equipment shall be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease.			
Noise			
Mitigation Measure NOISE-1: Maintain and equip construction equipment with noise control devices. The County shall ensure that the construction contractor implements the following mitigation measures during construction activities: ▪ Construction activities shall be limited to the hours of 7 a.m. to 7 p.m. when activities occur within 500 feet of a residential or other noise-sensitive land use. ▪ All construction equipment shall be properly maintained and equipped with noise control, such as mufflers, in accordance with manufacturers' specifications. ▪ The simultaneous operation of multiple construction equipment within 100 feet of residences shall be prohibited. Equipment not in use shall not be left idling for more than 5 minutes.	During construction	Construction contractor (implementation) Tehama County (monitoring/enforcement)	

Table MMRP-1. Mitigation Measures and Monitoring Requirements

Mitigation Measure	Timing	Responsible Parties	Verification (Date/Initials)
Mitigation Measure NOISE-2: Coordinate with residences to minimize noise disturbance. The County will work with the construction contractor and nearby residents to minimize disturbance to occupied residences. Before construction near noise-sensitive receptors, the County shall provide written notification to potentially affected receptors, identifying the type, duration, and frequency of construction operations. Notification materials will also identify a mechanism for residents to register noise-related complaints with the County; the County shall consider noise-related concerns on a case-by-case basis, but at a minimum will implement a 10 p.m. to 7 a.m. noise curfew in the event of complaint (in addition to the requirements of Mitigation Measure NOISE-1).	Prior to and during construction	Construction contractor (implementation) Tehama County (monitoring/enforcement)	

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Evergreen Road at South Fork Cottonwood Creek Bridge Project

Lead Agency: Tehama County — Contact Person: Kevin Rosser
Mailing Address: 9380 San Benito Avenue — Phone: (530) 385-1462
City: Gerber — Zip: 96035 — County: Tehama

Project Location: County: Tehama — City/Nearest Community: Cottonwood
Cross Streets: Evergreen Road, Bowman Road — Zip Code: ____
Longitude/Latitude (degrees, minutes and seconds): 40 ° 21 ' 45 " N / -122 ° 20 ' 23 " W — Total Acres: 46 ac
Assessor's Parcel No.: 004-060-32-1, 360-39-1 & 38-1 — Section: 17, 20 — Twp.: 29N — Range: 4W — Base: MDBM
Within 2 Miles: State Hwy #: ____ — Waterways: South Fork Cottonwood Creek
Airports: ____ — Railways: ____ — Schools: ____

Document Type:

CEQA:
- ☐ NOP
- ☐ Early Cons
- ☐ Neg Dec
- ☑ Mit Neg Dec
- ☐ Draft EIR
- ☐ Supplement/Subsequent EIR (Prior SCH No.) ____
- Other: ____

NEPA:
- ☐ NOI
- ☐ EA
- ☐ Draft EIS
- ☐ FONSI

Other:
- ☐ Joint Document
- ☐ Final Document
- ☐ Other: ____

Local Action Type:

- ☐ General Plan Update
- ☐ General Plan Amendment
- ☐ General Plan Element
- ☐ Community Plan
- ☐ Specific Plan
- ☐ Master Plan
- ☐ Planned Unit Development
- ☐ Site Plan
- ☐ Rezone
- ☐ Prezone
- ☐ Use Permit
- ☐ Land Division (Subdivision, etc.)
- ☐ Annexation
- ☐ Redevelopment
- ☐ Coastal Permit
- ☑ Other: Project Approval

Development Type:

- ☐ Residential: Units ____ Acres ____
- ☐ Office: Sq.ft. ____ Acres ____ Employees ____
- ☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
- ☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
- ☐ Educational: ____
- ☐ Recreational: ____
- ☐ Water Facilities: Type ____ MGD ____
- ☑ Transportation: Type Bridge Replacement, Road Modific.
- ☐ Mining: Mineral ____
- ☐ Power: Type ____ MW ____
- ☐ Waste Treatment: Type ____ MGD ____
- ☐ Hazardous Waste: Type ____
- ☐ Other: ____

Project Issues Discussed in Document:

- ☑ Aesthetic/Visual
- ☑ Agricultural Land
- ☑ Air Quality
- ☑ Archeological/Historical
- ☑ Biological Resources
- ☐ Coastal Zone
- ☑ Drainage/Absorption
- ☐ Economic/Jobs
- ☐ Fiscal
- ☑ Flood Plain/Flooding
- ☐ Forest Land/Fire Hazard
- ☑ Geologic/Seismic
- ☐ Minerals
- ☑ Noise
- ☐ Population/Housing Balance
- ☐ Public Services/Facilities
- ☐ Recreation/Parks
- ☐ Schools/Universities
- ☐ Septic Systems
- ☐ Sewer Capacity
- ☑ Soil Erosion/Compaction/Grading
- ☑ Solid Waste
- ☑ Toxic/Hazardous
- ☑ Traffic/Circulation
- ☑ Vegetation
- ☑ Water Quality
- ☐ Water Supply/Groundwater
- ☑ Wetland/Riparian
- ☑ Growth Inducement
- ☐ Land Use
- ☑ Cumulative Effects
- ☐ Other: ____

Present Land Use/Zoning/General Plan Designation:

Grazing/Valley Floor Agriculture; existing road and bridge with adjacent grazing uses and riparian corridor along creek

Project Description: *(please use a separate page if necessary)*

Tehama County Public Works proposes to replace the Evergreen Road Bridge (08C-0008) crossing the South Fork Cottonwood Creek southwest of the town of Cottonwood in northern Tehama County, California. The proposed project includes construction of a new bridge, removal of the existing bridge, realignment of Evergreen Road to match the new bridge location, excavation along the creek to increase the capacity of the channel upstream of the new structure, replacement of the Anderson Cottonwood Irrigation District canal crossing and pipeline under the road, and widening Bowman Road at its intersection with Evergreen Road. The purpose of the project is to replace the Evergreen Road Bridge (08C-0008), which is structurally deficient to withstand a seismic event and functionally obsolete due to inadequate curves near the bridge.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X Air Resources Board
___ Boating & Waterways, Department of
X California Highway Patrol
X Caltrans District #2
___ Caltrans Division of Aeronautics
X Caltrans Planning
X Central Valley Flood Protection Board
___ Coachella Valley Mtns. Conservancy
___ Coastal Commission
___ Colorado River Board
X Conservation, Department of
___ Corrections, Department of
___ Delta Protection Commission
___ Education, Department of
___ Energy Commission
X Fish & Game Region # 1
___ Food & Agriculture, Department of
___ Forestry and Fire Protection, Department of
___ General Services, Department of
___ Health Services, Department of
___ Housing & Community Development
___ Integrated Waste Management Board
___ Native American Heritage Commission

___ Office of Emergency Services
___ Office of Historic Preservation
___ Office of Public School Construction
___ Parks & Recreation, Department of
___ Pesticide Regulation, Department of
___ Public Utilities Commission
X Regional WQCB # 5
X Resources Agency
___ S.F. Bay Conservation & Development Comm.
___ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
___ San Joaquin River Conservancy
___ Santa Monica Mtns. Conservancy
___ State Lands Commission
___ SWRCB: Clean Water Grants
___ SWRCB: Water Quality
___ SWRCB: Water Rights
___ Tahoe Regional Planning Agency
___ Toxic Substances Control, Department of
X Water Resources, Department of

X Other: Central Valley Flood Protection Board
___ Other: ___

Local Public Review Period (to be filled in by lead agency)

Starting Date September 21, 2012 Ending Date October 22, 2012

Lead Agency (Complete if applicable):

Consulting Firm: North State Resources
Address: 1321 20th Street
City/State/Zip: Sacramento, CA 95811
Contact: Leslie Perry
Phone: 916-446-2566x206

Applicant: ___
Address: ___
City/State/Zip: ___
Phone: ___

Signature of Lead Agency Representative: Kenn Rosser **Date:** 9/14/12

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

COUNTY OF TEHAMA
DEPARTMENT OF PUBLIC WORKS
9380 San Benito Avenue
Gerber, CA 96035-9701
Bus: (530) 385-1462
Fax: (530) 385-1189

Road Commissioner
Surveyor
Engineer
Public Transit
Flood Control and
Water Conservation District
Sanitation District No. 1

Date: September 21, 2012

To: Interested Parties

From: Kevin Rosser, Tehama County

Subject: Notice of Intent to Adopt a Proposed Mitigated Negative Declaration for the Evergreen Road at South Fork Cottonwood Creek Bridge Project

Tehama County has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental effects of the Evergreen Road at South Fork Cottonwood Creek Bridge Project (project or proposed project), which is located in the northern portion of Tehama County on Evergreen Road over the South Fork of Cottonwood Creek. The project area is in a rural area, approximately 3 miles west of Interstate 5. The proposed project consists of the following: realign approximately 0.8 mile of Evergreen Road, construct a new bridge along the road across the South Fork Cottonwood Creek, remove the existing bridge, excavate along the creek to increase the capacity of the channel upstream of the new structure, install a left turn lane on Bowman Road at Evergreen Road, replace in-situ the ACID canal crossing, and modify the ACID pipeline under Evergreen Road.

Tehama County has prepared a Draft IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. To implement the proposed project, Tehama County also requires permission from the Federal Highway Administration (FHWA). A separate National Environmental Policy Act (NEPA) environmental document will be prepared by Caltrans in association with FHWA to evaluate those impacts associated with their decision making processes for federal funding. Tehama County is moving forward with the separate IS/MND at this time to provide environmental documentation necessary to facilitate the initiation of State and/or local approvals needed for construction of the project in 2015.

The IS/MND identifies potentially significant impacts related to: air quality, biological resources, water quality, and noise. All impacts are reduced to less-than-significant levels with implementation of recommended mitigation measures.

The IS/MND is being circulated for public review and comment for a 30-day period beginning on September 21, 2012, and ending on October 22, 2012. The IS/MND may be reviewed at Tehama County's Website [http://www.co.tehama.ca.us/]; at the Tehama County office located at 9380 San Benito Avenue, Gerber, CA 96035; and at the Tehama County Library, Corning Branch at 740 3rd Street, Corning, CA 96021.

Please send written comments on the IS/MND to Kevin Rosser, Civil Engineer, Tehama County, 9380 San Benito Avenue, Gerber, CA 96035, fax (530) 385-1293. Comments may also be sent via e-mail to KRosser@tcpw.ca.gov. For e-mailed comments, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address. The Tehama County Board of Supervisors will hold a public hearing to consider adoption of the IS/MND at 10:00am on October 30, 2012 at 727 Oak Street, Red Bluff, CA 96080.