Butte Creek Bridge Replacement

Chico, California
03-BUT-99-28.1/29.6
03-3E620

Initial Study with
Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

October 2010

General Information about This Document

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SCH:
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INITIAL STUDY with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

15 March 2010
Date of Approval

John D. Webb, Chief
Office of Environmental Services - South
California Department of Transportation

State of California
Department of Transportation

SCH: 2010032105
03-BUT-99-28.1/29.6
03-3E620

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation proposes to replace in kind the northbound (NB) Butte Creek Bridge (Br. No. 12-0126R) on State Route 99 in Butte County, with a new bridge to be constructed on the existing northbound bridge alignment. The existing bridge structure is experiencing substructure scour and continued deck deterioration and is in need of a replacement. Two NB and two southbound (SB) lanes of traffic would be provided through the construction zone. The project would use both state and federal funding.

Determination

This Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt a MND for this project. The Department has prepared an Initial Study for this project, and following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The proposed project would have minimal or no effect on cultural resources, floodplains, geology and soils, hydrology, water quality, land use and planning, traffic and transportation, mineral resources, public services, recreation, utilities, service systems, visual aesthetics, agricultural resources, air quality, noise, and growth.
- The proposed project would have a less than significant impact on biological resources because the following mitigation measures have been included:
    - Impacts to elderberry shrubs located directly under the bridge will be mitigated by purchasing 18 credits at a mitigation bank.
    - Requiring Environmentally Sensitive Area (ESA) fencing and signage as a way to protect the other elderberry shrubs that are within the project area but not affected by construction activities.
    - To lessen potential impacts to fish, Caltrans will replace riparian vegetation removed for construction with appropriate native riparian species on-site, at a 3:1 ratio. Therefore, for every one plant removed, three will be planted, in order to ensure establishment and growth.

JD Webb

18 October 2010

John D. Webb, Chief
Caltrans North Region
Office of Environmental Services - South
California Department of Transportation

Date

Initial Study

Project Title

State Route 99 Butte Creek Bridge Replacement Project

Lead Agency Name, Address and Contact Person

California Department of Transportation
703 B Street
Marysville, CA 95901
Kendall Schinke, Chief
Office of Environmental Management – 3
(530) 741-7113

Project Location

The project is located in Butte County on State Route (SR) 99 just south of the City of Chico, between the Estates Drive intersection and the Southgate and Entler Avenue intersection. Within the limits of the project, SR 99 is a 4-lane expressway with two lanes traveling southbound and two lanes traveling northbound. The northbound roadway consists of two 12-foot lanes and 8-foot shoulders, while the southbound roadway consists of two 12-foot lanes and 5 to 10-foot shoulders.

Project Sponsor's Name and Address

California Department of Transportation
Kendall Schinke, Chief
Environmental Management, M3
703 B Street
Marysville, CA 95901

Purpose and Need

The purpose of the project is to preserve the integrity of the transportation facility by replacing the existing bridge structure. The existing bridge has a long history of substructure scour and continual deck deterioration and is in need of a replacement.

Description of Project

The California Department of Transportation (Caltrans) proposes to replace in kind the northbound (NB) Butte Creek Bridge (Br. No 12-0126R) on SR 99 in Butte County with a new bridge constructed on the existing NB alignment. The existing bridge structure is experiencing substructure scour and continued deck deterioration and is in need of a replacement.

The new bridge would be a reinforced concrete box girder bridge. Two abutments on piles and one pier wall on spread footings would support the two-span structure. It

would be approximately 324 feet long with 12-foot-wide lanes and a 5-foot wide shoulder on the west side and 10-foot wide shoulder on the east side. Temporary false work, cofferdams, and a creek diversion/crossing will be required for the construction of the new bridge. The existing bridge has four piers; the proposed bridge will have one pier.

Roadwork will involve removing and replacing failed pavement areas, reconstructing existing shoulders, placing new Asphalt Concrete (AC) pavement, grinding Portland Cement Concrete (PCC), constructing a temporary crossover median detour, temporary culverts, extending existing culverts, replacing drains, placing Rock Slope Protection (RSP), removing and replacing flashing beacons and traffic sensors, installing temporary highway lighting, and constructing new bridge approach metal beam guard railing (MBGR). The southbound roadway will be utilized for detouring traffic and will require some reconstruction to strengthen the shoulders. The roadways (NB and SB) within the project limits will be paved with an Open Graded Friction Course-OGFC, formally known as Open Graded Asphalt Concrete overlay.

Both the northbound and southbound lanes will remain open through the construction zone. The southbound bridge (#12-0126L) will accommodate three lanes of traffic separated by a temporary concrete barrier (two southbound lanes and one northbound lane), requiring a one-lane crossover median detour. While the bridge is under construction, it will accommodate one lane of traffic at a time while the other half is in being constructed. Once one half of the bridge is built, traffic will switch to the newly constructed half, and the other half of the bridge will be built.

Surrounding Land Uses and Setting

The surrounding properties are devoted to commercial and residential uses. Although no homes are located in the immediate vicinity of the Butte Creek Bridge, west of Estates Drive, at the southern end of the project, is a residential community and a golf course. Southeast of the Butte Creek Bridge lies the Chico Research Park; this is currently being used for grazing. Northeast of the project are light industrial and commercial businesses along Southgate Lane.

Property belonging to the California Department of Fish and Game (CDFG) is located east and upstream of the bridge. People occasionally visit Butte Creek to hike, swim, fish, or pan for gold. An occasional homeless camp can be found as well. During construction of the new bridge, access to the recreation area will still be available from the gate at the end of the cul-de-sac on Southgate Lane.

Permits and Approvals Needed

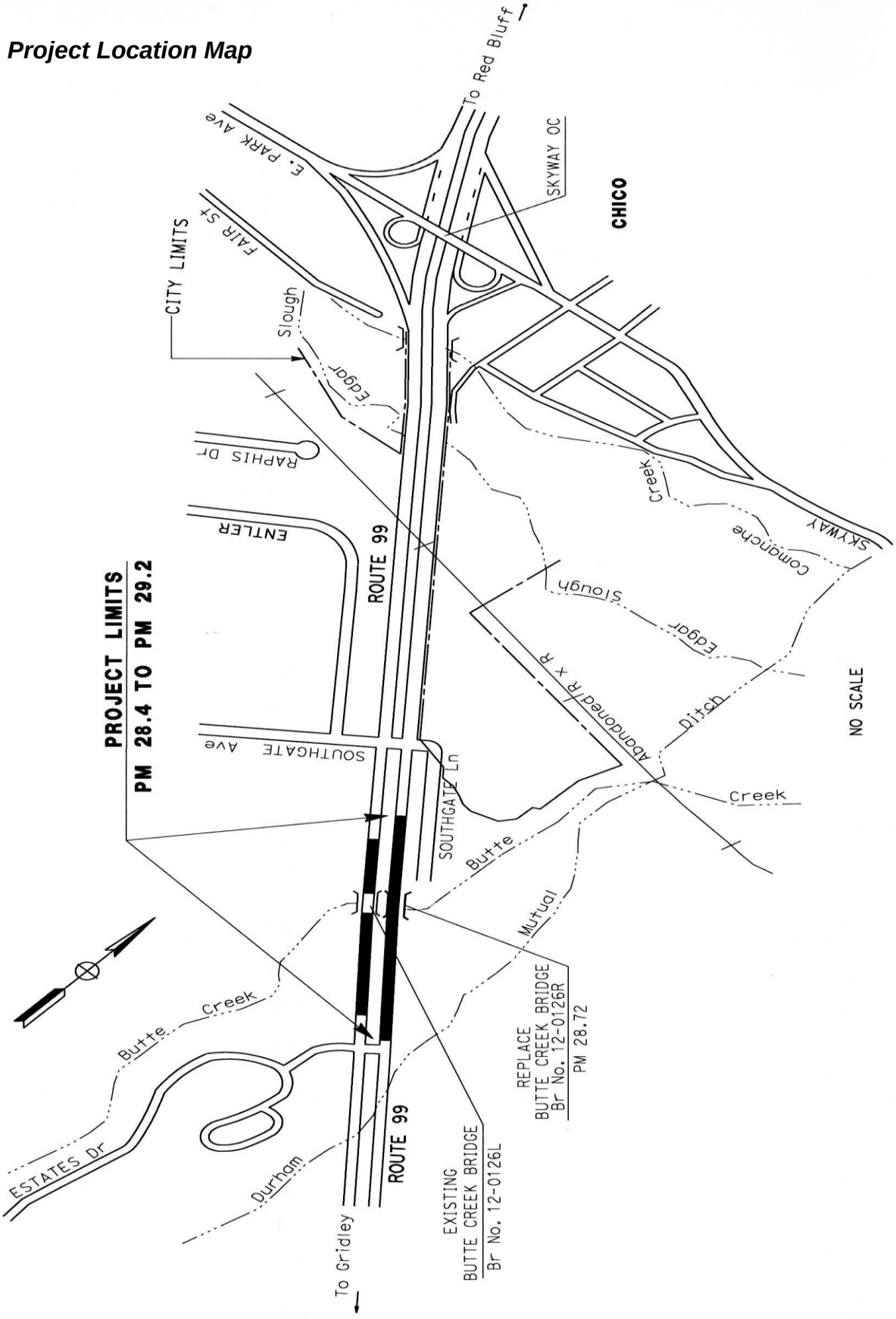
The following permits, reviews, and approvals will be required for the project.

Agency	**Permit/Approval**	**Status**
United States Army Corps of Engineers (USACE)	Nationwide (NWP) Permit 14 – under Section 404 of the Clean Water Act; Section 404 Permit	404 Not applied for yet
United States Dept. of Commerce, National Oceanic & Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS)	Section 7 Federal Endangered Species Act (FESA) Consultation *and* a Letter of Concurrence with Caltrans' affect determination of Not Likely to Adversely Affect (NLAA)	Letter of Concurrence received September 2010
California Department of Fish and Game (CDFG)	1602 Permit under the Lake or Streambed Alteration Agreement *and* agreement with NOAA/NMFS's Letter of Concurrence regarding CT NLAA finding	1602 not applied for yet Letter of Concurrence from NMFS concurred with Caltrans' NLAA fish species agreement with NOAA/NMFS Letter of Concurrence
Regional Water Quality Control Board (RWQCB)	Certification under Section 401 of the Clean Water Act, for work within OHWM and other water bodies	401 not applied for yet
United States Fish and Wildlife Service (USFWS)	Section 7 FESA Consultation	Biological Opinion (BO) received October 2010 with an "incidental take statement"
Central Valley Regional Water Quality Control Board (CVWQCB)	Dewatering Permit may be needed	Project Engineer or Resident Engineer responsible
Central Valley Flood Protection Board	CVFPB Encroachment Permit	Project Engineer responsible
Butte County Air Quality Management District	Notify agency before the demolition of the bridge	Resident Engineer responsible

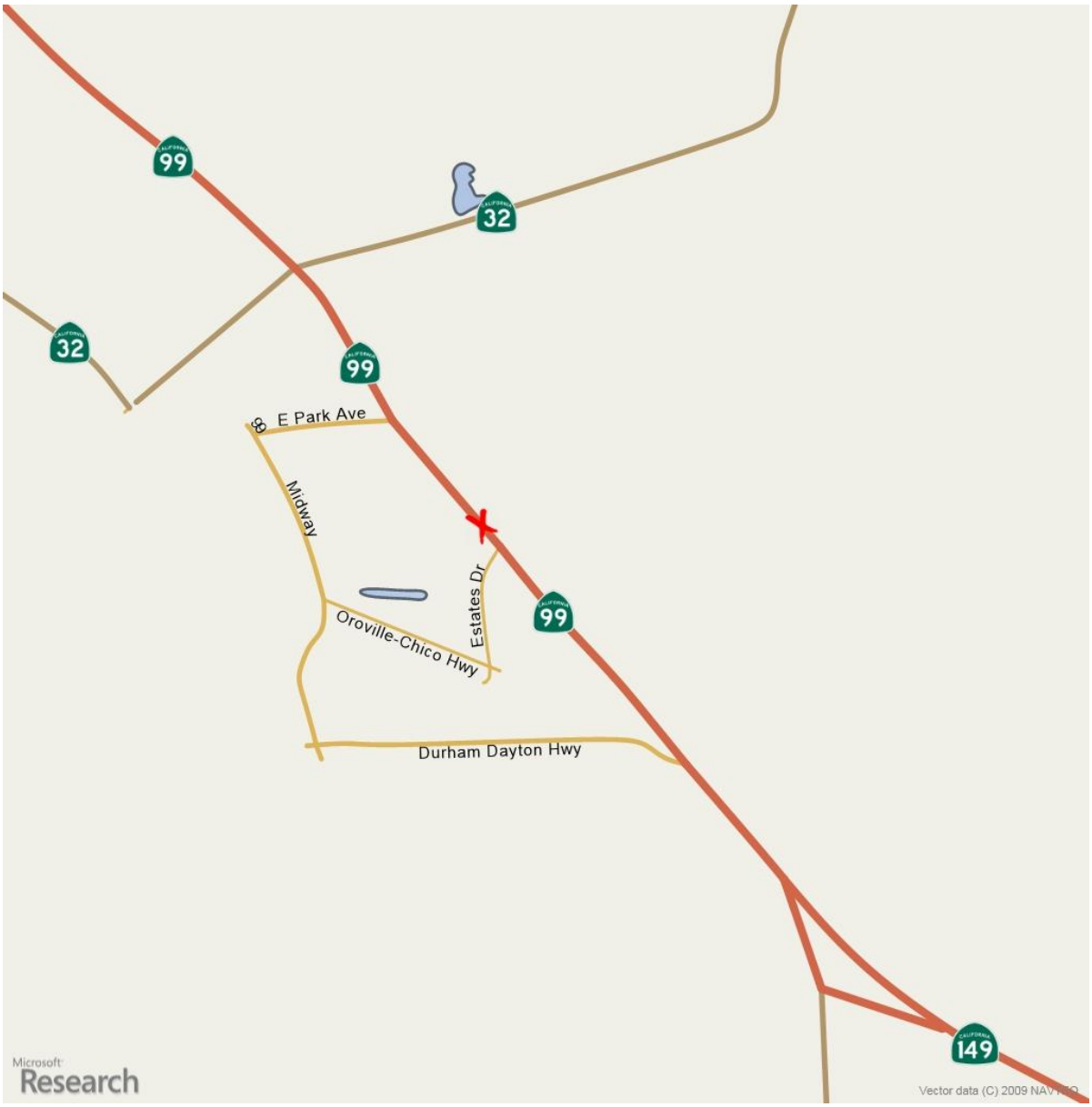
Zoning

The zoning within and around the project area consists of the following: suburban residential, primary open space, secondary open space, general manufacturing, and light manufacturing.

Project Location Map



Project Vicinity Map



Factors Potentially Affected Environmental

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

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

Impacts Checklist

The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. The checklist is followed by a focused discussion of biological issues relating to this project.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
I. AESTHETICS — Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	X
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	X

"No Impact" determination in this section is based on the Visual Impact Assessment, July 2009. The following minimization measures are to be used to lessen impacts to the visual quality of the area:

- ***The staging area must be restored, as nearly as possible, to its original condition implementing grading along with erosion control seeding.***
- ***Some of the trees near the Clear Recovery Zone (CRZ) had broken limbs from previous conditions. Trim these broken trees limbs away from the CRZ as to establish the CRZ.***
- ***Some mature oak and pine trees lie on the CRZ limits. These mature oak and pine trees should remain in place.***
- ***The Office of Landscape Architecture will assist in the preparation of a plant restoration and erosion control plan to restore the creek bed and adjacent areas, as much as feasible, to their original condition.***

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X

"No Impact" determinations in this section are based on various field reviews in 2007, 2008, and 2009 and data searches in 2009.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
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)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Air Quality Study, August 2009.

IV. BIOLOGICAL RESOURCES — Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	X	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	X	☐	☐
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?	☐	☐	☐	X
d) Interfere substantially with the movement of any				

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?	☐	☐	☐	X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
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?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Natural Environmental Study (NES), February 2010.

V. CULTURAL RESOURCES — Would the project:

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

"No Impact" determinations in this section are based on the Historic Property Survey Report (HPSR), June 2009. No historic landmarks or historic markers were identified in the project area as well.

VI. GEOLOGY AND SOILS — Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	☐	X
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	X
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	X
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?	☐	☐	☐	X

"No Impact" determinations in this section are based on information provided by the Project Engineer, November 2009.

VII. HAZARDS AND HAZARDOUS MATERIALS —
Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site that 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?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?	☐	☐	☐	X
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?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
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?	☐	☐	☐	X

"No Impact" determination in this section is based on review of the Initial Site Assessment (ISA) dated January 2010. In order to address some hazardous waste/ materials, the following measures will be required:

- ***Standard Special Provision (SSP) 15-027 to address lead in soil measures***
- ***SSP 14-001 for yellow traffic paint removal***
- ***SSP 42-600 for disposal of PCC grinding waste materials***
- ***NESHAP Asbestos notification to the local Air District for demolition of the bridge***
- ***Lead Compliance Plan***

VIII. HYDROLOGY AND WATER QUALITY —
Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
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 that would result in substantial erosion or siltation on- or offsite?	☐	☐	X	☐
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	☐	☐	X	☐

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
rate or amount of surface runoff in a manner that would result in flooding on- or offsite?				
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X
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?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	X
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?	☐	☐	☐	X
j) Result in inundation by a seiche, tsunami, or mudflow?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Water Quality report, January 2010. In order to address water quality, the following must be implemented:

- ***SSP 07-345 to address construction's temporary water pollution control measures***
- ***SSP 07-346 Construction Site Management, to control potential sources of water pollution before it encounters any storm water system or water course***
- ***Coordination with the Central Valley Regional Water Quality Control Board (CVRWQCB) is required for any anticipated dewatering and the determination of a Waste Discharge Requirement (WDR) or a Separate Dewatering Permit.***

IX. LAND USE AND PLANNING — Would the project:

a) Physically divide an established community?	☐	☐	☐	X
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?	☐	☐	☐	X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X

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

"No Impact" determinations in this section are based on information provided by the Project Engineer, November 2009.

X. MINERAL RESOURCES — Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
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?	☐	☐	☐	X

"No Impact" determinations in this section are based on information provided by the Project Engineer, November 2009.

XI. NOISE — Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
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?	☐	☐	☐	X

"No Impact" determinations in this section are based on the Noise Evaluation report, July 2009.

XII. POPULATION AND HOUSING — Would the project:

	Potentially significant impact	Less than significant impact with mitigation	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)?	☐	☐	☐	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X

"No Impact" determinations in this section are based on the scope and location of the project.

XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X

"No Impact" determinations in this section are based on the scope and location of the project.

XIV. RECREATION —

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
facilities that might have an adverse physical effect on the environment?				

"No Impact" determinations in this section are based on the scope and location of the project.

XV. TRANSPORTATION/TRAFFIC — Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
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?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X

"No Impact" determinations in this section are based on information provided by the Project Development Team, November 2009.

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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?	☐	☐	☐	X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X
e) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	X
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	X

"No Impact" determinations in this section are based on information provided by the Project Engineer, November 2009.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

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

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	X

Affected Environment, Environmental Consequences, and Mitigation Measures

Biological Resources

Natural Communities

Regulatory Setting

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

Habitat areas that have been designated as critical habitat under the federal Endangered Species Act are discussed in the threatened and endangered species section; this includes habitat areas such as the migration corridor for the two salmonid species using Butte Creek. Wetlands and other waters are also discussed in the next section.

Affected Environment

According to the Natural Environmental Study (NES) dated December 2009, written by a qualified Caltrans biologist, the one natural community known to occur in the Biological Study Area (BSA) is the Great Valley Mixed Riparian Forest. This community is not listed by the federal or state resource agencies (including California Department of Fish and Game-CDFG and California National Park Service-CNPS) as being sensitive. The California National Diversity Database (CNDDB) reports that 113 acres of this community are present near the Butte Creek Bridge and consists of the following plants: white alder, California sycamore, Fremont cottonwood, wild grape, and valley oak.

This natural forest community is described as a tall, dense, deciduous riparian forest. The tree canopy is fairly well closed and moderately to densely stocked with maple, walnut, sycamore, cottonwood, and willows. The understory consists of these trees but younger, along with shade tolerant shrubs such as button brush and ash. Members of the lianas genus (woody vines) can be found in both the tree and understory layers.

There are no other natural communities observed or documented as occurring in the Biological Study Area (BSA).

Riparian vegetation not only provides roosting and nesting possibilities for birds but also provides vital shading to the creek. The amount of shading affects the water temperature which in turn affects the use of the creek by the salmonids and other aquatic species.

Butte Creek is known as a migratory corridor for Central Valley steelhead trout and Central Valley spring-run chinook salmon. The creek is approximately 30 miles long from its headwaters to where it joins the Sacramento River and Feather River confluence, with other tributaries joining it along the way. From the Sacramento River and Feather River confluence, it flows another 170 miles to the ocean. The salmonids return to Butte Creek in April, May, and June and then spawn in September and October. The spawning grounds are approximately 16 miles upstream from the Butte Creek Bridge. The salmonids are unable to access the creek beyond the Centerville Dam, which is approximately 9 miles upstream of Butte Creek Bridge. Multiple dams and diversions occur along Butte Creek, including the Centerville Dam.

Environmental Consequences

Based on the Project Engineer's estimate, the project will result in approximately 10 acres total of disturbed soil area (DSA). Within that area, approximately 23 trees, of various sizes, will be removed. These trees consist of oaks, willow, alder, and cottonwood. Once the design plans are further developed, it will then be possible to make a more precise calculation of the number of trees to be removed.

It is unknown what cumulative impacts there may be to this community. Caltrans does not have multiple projects is this area that would affect riparian vegetation. Private development within the natural community is limited to county, state and federal building restrictions within floodplains. The landowner to the southeast of the BSA has proposed in the past to create a commercial development on what is now being used as cattle grazing property. However, Butte County and its voters have denied the commercial development.

Because certain avoidance and minimization measures, discussed below, will be implemented during construction, Caltrans has concluded that there will be no effect on the migratory corridor of the salmonids, nor will there be an effect on habitat fragmentation. Please refer to the threatened and endangered section for more details on the salmonids.

Avoidance, Minimization, and/or Mitigation Measures

To minimize impacts to the natural community, staging and storage of equipment and materials during construction will be confined to previously disturbed areas that are devoid of riparian species. Any vegetation that does not require removal will be trimmed to ground level or removed, if necessary. Several of the species in the Great Valley Mixed Riparian Forest will then regrow from these stumps. Caltrans proposes to mitigate for the removed riparian vegetation by replanting the appropriate native riparian species on-site at a ratio of 3:1. This ratio was required by National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) in a June 25, 2009 Technical Assistance letter to Caltrans. The 3:1 replanting ratio was then confirmed in NMFS's September 2010 Letter of Concurrence.

Additional measures that will be implemented include an in-water work window; meaning work within the active channel will only be allowed from July 15 to October 15. This is when the salmonids are least likely to migrate through the area. The July 15 to October 15 in-stream work window was also confirmed in NMFS's September 2010 Letter of Concurrence.

Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce.

Section 404 of the Clean Water Act establishes a regulatory program, which provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the Environmental Protection Agency (EPA).

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project, which will substantially divert or obstruct the natural

flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. As already determined, this project will require a Section 1602 Streambed Alteration Agreement from CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act.

Affected Environment

No wetlands were observed within the BSA, however other waters of the U.S. are present. Other waters of the U.S. include Butte Creek and several roadside culverts located within the project area. Consultation with the following resource agencies will occur for these other waters of the U.S:

- USACE, Section 404 of the Clean Water Act
- RWQCB, Section 401 of the Clean Water Act
- CDFG, Section 1602 of the Lake and Streambed Alteration Agreement

Environmental Consequences

Further analysis will determine a more precise identification of impacts, once design plans have been further developed.

Avoidance, Minimization, and/or Mitigation Measures

By complying with the conditions in the permits listed above, Caltrans anticipates a no impact finding to other waters of the U.S. Avoidance and minimization measures will be further defined, as design plans are developed and refined. If additional impacts are identified during the development of the project, corresponding impact studies will be necessary and this document will need to be re-validated.

Plant Species

Regulatory Setting

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

The following section of the document discusses all the other special-status plant species, including CDFG fully protected species and species of special concern, USFWS candidate species, and non-listed California Native Plant Society (CNPS) rare and endangered plants.

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

Affected Environment

The BSA is not expected to be able to support any of the special status plant species listed for Butte County or from the United States Geological Survey (USGS) quadrangle map for Chico, and no special status plant species were found during various field reviews. These listed species seem to prefer habitats that support open plains and vernal pools. The BSA does not contain that type of habitat; it consists of gravel, mine tailings, and a riparian setting. Most of the BSA to the west of the project is currently being used for cattle grazing, therefore prohibiting the growth of some plants and the ability to survey.

Environmental Consequences

Because no special status plants were found in the BSA and the current environment within the BSA is not likely to support the special status plant species, there will be no impacts to the special status plants.

Avoidance, Minimization, and/or Mitigation Measures

Due to the absence of special status plant species within the BSA, avoidance, minimization, and/or mitigation measures will not be necessary. However, all of the disturbed soil areas will be restored to their original condition, as nearly as possible.

Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The USFWS, the NMFS, and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the threatened and endangered species section below. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NMFS fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following: National Environmental Policy Act, Migratory Bird Treaty Act, and Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following: California Environmental Quality Act, Sections 1600 – 1603 of the Fish and Game Code, and Sections 4150 and 4152 of the Fish and Game Code.

Affected Environment

According to the Natural Environment Study, remnants of mud nests and newly constructed mud nests were observed under the northbound Butte Creek Bridge structure, providing evidence of cliff swallows. Substantial amounts of bat guano were observed in the structure, however very few bats have been observed during the day by Caltrans biologists during several visual surveys throughout the year. This indicates the bridge provides night roosts for a large number of bats. A night roost

means that the bats typically roost in the bridge structure at night but not during the day.

Environmental Consequences

Because nesting birds and roosting bats occur on or in the Butte Creek Bridge, it is expected that the construction of a new bridge may have a measureable impact on them.

Avoidance, Minimization, and/or Mitigation Measures

For the swallows, Caltrans will propose that either construction over the creek be limited to September through mid-February (outside of the nesting season) or that previously used mud nests be removed and exclusionary devices installed, prior to or after the February 15th to September 1st nesting season. Once the devices have been installed they must be maintained and kept in good working order.

For the bats, Caltrans will propose that exclusionary devices be installed. These devices may be installed on March 1 (if bats have returned to the Butte Creek Bridge) or on September 1 (at the end of the season when young can fully fly and forage for themselves). After the exclusionary devices have been installed, Caltrans and the contractor must wait seven days before work can commence. This seven day waiting time period will allow the bats to exit the bridge and relocate. Once these devices have been installed they must be maintained and kept in good working order.

Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC), Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the USFWS and the NMFS to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 will be either a Biological Opinion or an incidental take permit.

Section 3 of FESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct.”

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The CDFG is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. “Take” is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code. CFDG, however, has concurred with NMFS in their Not Likely to Adversely Affect (NLAA) finding, therefore a Consistency Determination letter will not be necessary for this project. Instead a Letter of Concurrence was sent to Caltrans from NMFS in September 2010, concurring with the NLAA finding.

Affected Environment

Fish

Central Valley spring-run chinook salmon and Central Valley steelhead trout are listed as sensitive fish species as occurring in Butte County and locations depicted on the United States geographical Survey (USGS) 7.5’ Chico, CA quadrangle. The chinook are listed by the state and federal regulatory agencies as a threatened species. The steelhead fish are federally listed as a threatened species. Both fish species are known to occur in Butte Creek.

Insect

The valley elderberry longhorn beetle (VELB) is listed as a federally threatened species and is known to occur within Butte County. The elderberry shrub is the primary host and home to the valley elderberry longhorn beetle.

Approximately five elderberry shrubs were observed under the south side of the bridge and one shrub was observed on the north side of the bridge. One shrub was found over the south-east levee, in an area proposed for a temporary construction easement (TCE). Two shrubs were observed at the intersection of SR99 and

Southgate Avenue. The shrub on the southwest side of the intersection is already marked with an Environmentally Sensitive Area (ESA) paddle. The shrub on the southeast side of the intersection is not currently marked but is very prominent and large. Two small shrubs were observed near the existing Caltrans maintenance storage area along southbound SR99, north of the bridge.

Although the beetle is known to occur in Butte County, no exit holes were observed on any of the elderberry shrubs within the BSA. Exit holes are usually an indicator of the beetle's presence.

Environmental Consequences

Fish

It is unknown what, if any, impacts this project will have on the salmonids that use Butte Creek. Caltrans assumes that by following the work windows, work restrictions, and mitigation measures, the project is not expected to affect the salmonids. However, Caltrans has applied for a NLAA finding from NMFS for this project. NMFS has responded to Caltrans' determination in their September 2010 Letter of Concurrence, confirming the NLAA finding.

Insect

All of the elderberry shrubs directly under the NB side of the bridge will be impacted by the project. Construction activities will directly affect six of the elderberry shrubs, with a total of twenty-three stems greater than one inch in diameter at ground level, due to the removal of the shrubs. It is unknown if these shrubs support the VELB but it is assumed that they do provide possible habitat. According to NMFS's October 2010, Biological Opinion "the shrubs within the project area are too difficult to transplant due to their location underneath the bridge. Caltrans has proposed compensation for all six of the directly affected shrubs. These six shrubs will be removed as part of the proposed project. The location and topography of the elderberry shrubs beside and under the bridge would make it very difficult for equipment access and/or remove the shrubs in these locations." In conclusion, the shrubs directly under the bridge will, more than likely, be removed in order to allow for construction equipment access, removal of the existing NB bridge, and construction of the new NB bridge.

All other elderberry shrubs not directly under the bridge will be protected before and during construction with Environmentally Sensitive Area (ESA) fencing and signage.

Avoidance, Minimization, and/or Mitigation Measures

Fish

Caltrans is required by NMFS to avoid impacts to salmonids by following certain work windows and work restrictions.

A qualified biologist will inspect the work area prior to the start of work to confirm the absence of salmonids. Activities conducted in the active channel of the creek will be limited to the period between July 15 and October 15. This work window for in-water work is a time when the salmonids are least likely to be travelling through the area. Silt curtains will be used around in-water work to minimize turbidity and sedimentation. Best Management Practices (BMPs) will also be used to reduce potential water quality impacts, preventing deleterious materials from entering the channel. Erosion control will be applied to disturbed soil areas prior to October 15. Caltrans will also work to avoid impacting the natural riparian habitat at the site.

Caltrans will mitigate impacts to the natural riparian habitat present at the site. Riparian vegetation not only provides roosting and nesting possibilities for birds but also provides vital shading to the creek. The amount of shading, affects the water temperature, which in turn affects the use of the creek by the salmonids and other aquatic species. Caltrans will compensate for any removed riparian vegetation by replanting at the same site, at a 3:1 ratio. Planting more than what was originally removed helps to ensure the reestablishment of the plant species. The 3:1 ratio was required by NMFS in their June 2009 Technical Assistance letter to Caltrans. That 3:1 ratio was then confirmed by NMFS in their September 2010 Letter of Concurrence to Caltrans. Further mitigation coordination will need to be done with NMFS and CDFG as the Butte Creek Bridge Replacement Project develops.

Insect

To avoid impacts to any possible valley elderberry beetle (VELB), all shrubs not under the bridge and within the project limits, will be protected during construction with ESA fencing and signage. At this time, no ground disturbance is scheduled to occur near the two large shrubs observed at the intersection of SR 99 and Southgate Ave. or near the two small shrubs observed near the existing maintenance storage area.

All fencing and signage will be installed before construction is scheduled to begin and will be approved by Caltrans biologist. The project plans will show the location of the shrubs and their protective fencing. ESA fencing signs will contain the

following language: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs must be legible from 20 feet away and shall be maintained during the entire duration of construction.

In addition, any ground disturbed within the buffer areas of the shrubs will be restored after construction. The affected areas will be re-vegetated with native plants appropriate for the project location. Insecticides, herbicides, fertilizers, or other chemicals will not be used in core or buffer areas within the project limits. Like all Caltrans projects, Best Management Practices (BMPs) will be in place during construction and will serve to minimize potential soil erosion and air borne dust.

Contractors and Caltrans construction personnel shall be educated about the importance of the elderberry shrubs and the consequence of damaging the shrubs. Contractors and workers shall also be informed about the status of the beetle and the need to protect its host plant, prior to construction. This should happen at the pre-construction meeting, where the contractor and Caltrans personnel are present.

For the elderberry shrubs directly impacted under the northbound Butte Creek Bridge, Caltrans will be required by the USFWS to provide 18 units worth of mitigation in order to mitigate impacts to the VELB. This was determined in USFWS’s October 2010 Biological Opinion to Caltrans. The mitigation bank credits must be fulfilled prior to any ground disturbance activities associated with the project. Compensation for the shrubs will occur at a service approved conservation bank or through an in-lieu fund for the beetle that will purchase bank credits when they become available.

Mitigation, or conservation, banks are basically large blocks of land preserved, restored, and enhanced for purposes of consolidating mitigation for and mitigating in advance for projects which require mitigation. For purposes of this project, the mitigation bank will support elderberry shrubs and other native associated vegetation in their natural environment. Because the shrub will be mitigated for with the purchase of approved credits, the USFWS has issued an “incidental take statement” in their October 2010 Biological Opinion. The USFWS concludes that the level of anticipated take associated with this particular project is not likely to result in jeopardy to the beetle.

The reason Caltrans will be required to purchase approximately 18 units of elderberry credits is based on two factors. Firstly, the shrubs are feasibly impossible to transplant and/or keep, based on the location, topography, and access to the shrubs, as well as the demolition of the existing bridge, and the construction of the new bridge. Secondly, the stem count of shrubs being removed determines the amount needed for mitigating. The stem count of the elderberry shrubs directly impacted by the project was determined by the Caltrans biologist to be 9 units. Because the elderberry shrubs are in a location too difficult to transplant, the ratio required from USFWS is 2:1. So for every one unit of shrub removed, Caltrans must replace with two shrub units. Therefore the total mitigation units Caltrans is required to purchase in order to mitigate for the elderberry shrubs removed is approximately 18 (9x2) or 2:1.

Invasive Species

Regulatory Setting

On February 3, 1999, President Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the state's noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

Affected Environment

The invasive plant species observed in the BSA include vinca (*vinca* sp), johnsongrass (*sorghum halepense*) and yellow star thistle (*Centurea solstitialis* L.). No invasive animal species were observed in the BSA.

Environmental Consequences

The clearing, grading, and soil moving operations associated with roadway construction provide an opportunity for noxious weeds to become established. However, the proposed revegetation measures for all disturbed soils will reduce the risk of introducing noxious weeds and invasive plant species.

Avoidance, Minimization, and/or Mitigation Measures

Revegetation measures for all disturbed soil areas include the use of native species, soil amendments, and weed free mulch, reducing the spread or introduction of invasive plant species. The contract specification for permanent erosion control requires the use of California native forb and grass species, from the same elevation and geographic area as the project site. All areas disturbed by construction would be treated with a seed mix comprised of local native grasses and forbs. Soils would be amended with compost containing long-term soil nutrients and slow-release organic fertilizers to provide nutrients over the first year. Mulches used for the project would be from source materials which would not introduce exotic species. No wheat or barley straw would be used on the project because of the potential to introduce weeds.

Air Quality

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

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

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and particulate matter (PM). California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality

model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as Butte County Association of Governments (BCAG) for Butte County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

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

Affected Environment

The Caltrans, North Region Environmental Management Branch, S-4, conducted an Air Quality Study, along with the associated CE Checklist: Air Quality Conformity Questions, on August 18, 2009 to determine potential air quality impacts.

The project is located in a nonattainment or maintenance area for ozone, nitrogen dioxide, carbon monoxide, PM2.5, or PM10. However, the project is exempt from all project level conformity requirements per Table 2 of 40 Code of Federal Regulations (CFR) 93.126, subsection "Safety (widening pavement or reconstructing bridges, no additional travel lanes)".

Environmental Consequences

Regional and Project Level Air Quality Conformity

This project is exempt from regional (40 CFR 93.127) conformity requirements. Separate listing of the project in the Regional Transportation Plan and Transportation

Improvement Program, and their regional conformity analysis, is not necessary. The project will not interfere with timely implementation of Transportation Control Measures identified in the applicable SIP and regional conformity analysis.

Construction

The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM_{10}, would be the primary short-term construction impact, which may be generated during excavation, grading and hauling activities. However, both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature. Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction. The provisions of Section 7-1.01F, Air Pollution Control, and Section 10, Dust Control, require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Naturally Occurring Asbestos (NOA) is known to exist in serpentine, a greenish greasy-looking rock, found within the ultramafic rock. Based on the California Geologic Survey and National Resource Conservation Service soils map, ultramafic rocks are found in the northeastern part of Butte County. If NOA is found during construction, rules and regulations of the local air quality management district must be adhered to when handling this material.

Avoidance, Minimization, and/or Mitigation Measures

Most of the construction impacts to air quality are short-term in duration and, therefore will not result in adverse or long-term conditions. For temporary construction related impacts, the provisions of Section 7-1.01F Air Pollution Control, Section 10, Dust Control, requires the contractor to comply with all pertinent rules, regulations, ordinances and statutes of the local air district. If Naturally Occurring Asbestos (NOA) is found during construction, rule and regulation of the local air quality management district must be adhered to when handling this material.

CLIMATE CHANGE

Climate change is analyzed in detail in this section, below. Neither EPA nor FHWA has promulgated explicit guidance or methodology to conduct project-level

greenhouse gas analysis. As stated on FHWA's climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making process–from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the CEQA chapter of this environmental document and may be used to inform the NEPA decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

Climate Change

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include carbon dioxide (CO_2), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light

truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See California v. Environmental Protection Agency, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. On June 30, 2009 EPA granted California the waiver. California is expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. The granting of the waiver will also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases. "Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., 549 U.S. 497 (2007). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the

Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)--in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009.[1]

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

[1] http://www.epa.gov/climatechange/endangerment.html

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below is a graph from that update that shows the total GHG emissions for 1990, 2002-2004 average, and 2020 projected if no action is taken.

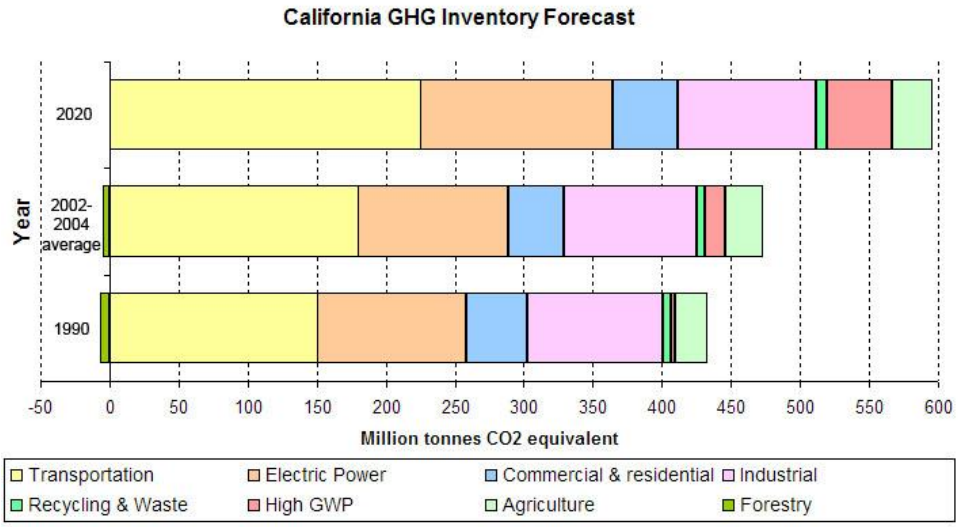


FIGURE ## CALIFORNIA GREENHOUSE GAS INVENTORY

Taken from : http://www.arb.ca.gov/cc/inventory/data/forecast.htm

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation (see Climate Action Program at Caltrans (December 2006), Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at:
http://www.dot.ca.gov/docs/ClimateReport.pdf

Project Analysis

This project is a safety project replacing the exiting facility in kind, and will not increase or change long-term traffic. Therefore, no increase in operational GHG emissions is anticipated to occur with the project.

Construction Emissions

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as CARB works to implement the Governor's Executive Orders and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a $238.6 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including $100.7 billion in transportation funding through 2016[2]. As shown in Figure 2.4-3, the Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

[2] 2 Governor's Strategic Growth Plan, Fig. 1 (http://gov.ca.gov/pdf/gov/CSGP.pdf)

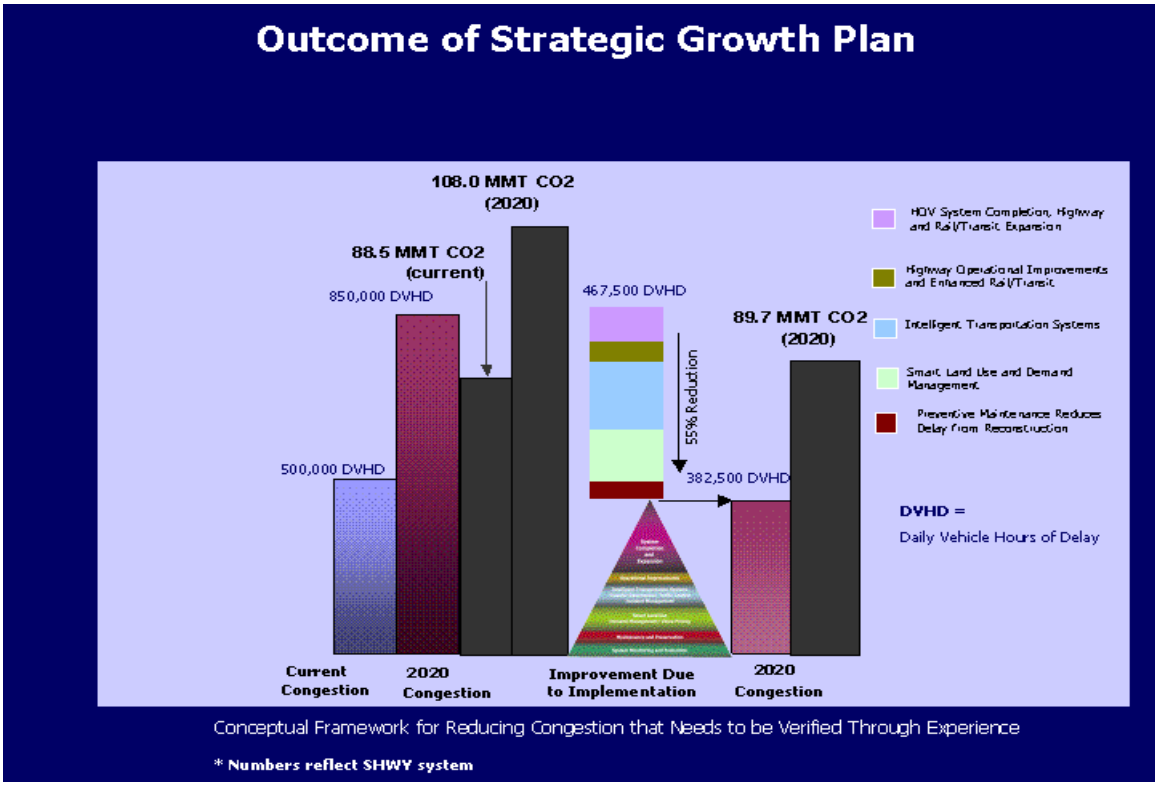


Figure 3-2 Outcome of Strategic Growth Plan

As part of the Climate Action Program at Caltrans (December 2006, http://www.dot.ca.gov/docs/ClimateReport.pdf), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by EPA and CARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

Adaptation Strategies

Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased

variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Climate change adaption must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, Governor Schwarzenegger signed Executive Order S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change.

The California Resources Agency [now the Natural Resources Agency, (Resources Agency)], through the interagency Climate Action Team, was directed to coordinate with local, regional, state and federal public and private entities to develop a state Climate Adaptation Strategy. The Climate Adaptation Strategy will summarize the best known science on climate change impacts to California, assess California's vulnerability to the identified impacts and then outline solutions that can be implemented within and across state agencies to promote resiliency.

As part of its development of the Climate Adaptation Strategy, Resources Agency was directed to request the National Academy of Science to prepare a Sea Level Rise Assessment Report by December 2010 to advise how California should plan for future sea level rise. The report is to include:

- relative sea level rise projections for California, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates;
- the range of uncertainty in selected sea level rise projections;
- a synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems;
- a discussion of future research needs regarding sea level rise for California.

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

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. However, all projects that have filed a Notice of Preparation, and/or are programmed for construction funding the next five years (through 2013), or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data. (Executive Order S-13-08 allows some exceptions to this planning requirement.) This is a safety project and is programmed for construction in 2012.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted as part of Governor's Schwarzenegger's Executive Order on Sea Level Rise and is mobilizing to be able to respond to the National Academy of Science report on Sea Level Rise Assessment which is due to be released by December 2010.

On August 3, 2009, Natural Resources Agency in cooperation and partnership with multiple state agencies, released the 2009 California Climate Adaptation Strategy Discussion Draft, which summarizes the best known science on climate change impacts in seven specific sectors and provides recommendations on how to manage against those threats. The release of the draft document set in motion a 45-day public comment period. Led by the California Natural Resources Agency, numerous other state agencies were involved in the creation of discussion draft, including Environmental Protection; Business, Transportation and Housing; Health and Human

Services; and the Department of Agriculture. The discussion draft focuses on sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. The strategy is in direct response to Gov. Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings. A revised version of the report was posted on the Natural Resource Agency website on December 2, 2009; it can be viewed at: http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change impacts, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Caltrans will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

List of Preparers

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

Maggie Ritter, Associate Environmental Planner. Contribution: Environmental Study Coordinator and Document Writer

Encanta Engleby, Associate Environmental Planner (Natural Sciences). Contribution: Natural Environment Study – February 2010

Kelley Nelson, Associate Environmental Planner (Natural Sciences). Contribution: Biological Assessments (BA's) for VELB - April 2010; and Steelhead/Chinook - May 2010

Marsha Freese, Associate Landscape Architect. Contribution: Visual Impact Assessment – July 2009

Jason Lee, Transportation Engineer. Contribution: Initial Site Assessment – November 2009

Sharon Tang, Transportation Engineer. Contribution: Air Quality Study – August 2009

Benjamin Tam, Transportation Engineer. Contribution: Noise Evaluation – July 2009

Erin Dwyer, Associate Environmental Planner (Cultural Resources). Contribution: Historic Property Survey Report – June 2009

Kevin Evarts, Transportation Engineer. Contribution: National Pollutants Discharge Elimination System (NPDES) Storm Water Coordinator and Water Quality Assessment – January 2010

Chapter 3 – Comments and Coordination

COORDINATION

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. This helps planners determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts, mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings and interagency coordination meetings; an informational public workshop was also conducted. This chapter summarizes the results of the Department's efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

Agency Coordination

Below is a list of government agencies with which Caltrans has consulted with and will continue to coordinate with in an effort to fully identify, resolve and address project-related issues.

National Oceanic Atmospheric Administration (NOAA)
California Department of Fish and Game (CDFG)
U.S. Fish and Wildlife Service (USFWS)
Central Valley Regional Water Quality Control Board (CVRWQCB)
Central Valley Flood Protection Board (CVFPB)
U.S. Army Corps of Engineers (USACE)

On September 10, 2009 a field meeting was conducted with the Caltrans' Project Development Team members, a representative from NOAA, and two representatives from CDFG. The purpose of the field meeting was to bring together key project players, in order to discuss and describe the bridge construction process and to discuss the in-water work window, particularly the flexibility of the in-water work window. The conclusion of the field meeting was that the in-water work window will depend on the project's antecedent conditions, which influence the biological environment, particularly the fish population.

Public Participation

In order to gain insight and suggestions from the public, Caltrans conducted an informational public workshop at the Butte County Country Club located near the

project area on September 9, 2009. The public notice for the workshop was circulated in the local paper prior to the workshop for approximately 30 days. All of the nearby houses and businesses were mailed individual fliers, notifying them of the upcoming informational workshop. Over 20 interested organizations and regulatory agencies were notified about the informational workshop as well. Approximately eight individuals attended the workshop. The outcome of the workshop was positive, with no foreseen issues or concerns.

Comments and Responding to Comments

This Draft Initial Study (IS) with a proposed Mitigated Negative Declaration (MND) was provided to the public for a 30-day comment period from April 1, 2010 to May 1, 2010. Caltrans did not receive any public comments for the Draft Environmental Document within the 30-day public comment period.

The IS/Proposed MND was distributed to a number of regulatory agencies as well. On March 15, 2010, 15 copies of the IS/Proposed MND, along with the Notice of Completion were sent to the State Clearinghouse (SCH). The SCH then sent copies of the Draft IS/Proposed MND to the following agencies for comments:

Central Valley Flood Protection Agency (CVFPB)
California Department of Fish and Game (CDFG)
Central Valley Regional Water Quality Control Board (CVRWQCB)
U.S. Fish and Wildlife Service (USFWS)
Office of Historic Preservation
Department of Parks and Recreation
Department of Water Resources
Office of Emergency Management Agency, California
California Highway Patrol
Native American Heritage Commission
State Lands Commission

Comments

A total of four comment letters were received from various regulatory agencies; the first was from the CVRWQCB, another was from the CVFPB, the third was from NOAA/NMFS, and the fourth letter was from the USFWS. The comment letters and the responses to those comment letters are provided in the following pages.

Caltrans did not receive any public comments during the 30-day comment period.

Comment Letter #1 - Central Valley Regional Water Quality Control Board (CVRWQCB)

Linda S. Adams
Secretary for Environmental Protection

California Regional Water Quality Control Board
Central Valley Region

Katherine Hart, Chair

415 Knollcrest Drive, Suite 100, Redding, California 96002
(530) 224-4845 • Fax (530) 224-4857
http://www.waterboards.ca.gov/centralvalley

Arnold Schwarzenegger
Governor

5 April 2010

Mr. Kendall Schinke
California Department of Transportation
703 B Street
Marysville, CA 95901

COMMENTS ON THE NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR PROPOSED BUTTE CREEK BRIDGE REPLACEMENT PROJECT, NEAR CHICO, BUTTE COUNTY

The Central Valley Regional Water Quality Control Board (Regional Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 1 April 2010, our office received a Notice of Intent to Adopt A Mitigated Negative Declaration, Environmental Initial Study, Site Map, and Request for Comments Letter from your office regarding the proposed development referenced above.

The California Department of Transportation proposes to replace in kind the northbound Butte Creek Bridge (Br. No. 12-0126R) on State Route 99 in Butte County, with a new bridge to be constructed on the existing northbound bridge alignment. The existing bridge structure is experiencing substructure scour and continued deck deterioration and is in need of replacement. Two northbound and two southbound lanes of traffic would be provided through the construction zone. The project is located in Butte County on State Route (SR) 99 just south of the City of Chico, between Estates Drive intersection and the Southgate and Entler Avenue intersection. Within the limits of the project, SR 99 is a 4-lane expressway with two lanes traveling southbound and two lanes traveling northbound. The northbound roadway consists of two 12-foot lanes and 8-foot shoulders, while the southbound roadway consists of two 12-foot lanes and 5 to 10-foot shoulders.

The following comments are provided to help outline the potential permitting which may be required by the Regional Water Board, policy issues concerning the project, and suggestions for mitigation measures. Our present comments focus primarily on discharges regulated under our CWA §401 and storm water programs.

Water Board entitlements include:

• Fill or dredged material discharges	Clean Water Act (CWA) §401 water quality certification for federal waters; or Waste Discharge Requirements for non-federal waters
• Storm water and other wastewater discharges	CWA §402 NPDES permit; Storm Water Discharges Associated with Construction Activity

The following summarizes project permits that may be required by our agency depending upon potential impacts to water quality:

Caltrans Storm Water
In order to protect water quality from the potential development activities, appropriate storm water pollutant controls will be required during construction. Construction activities for this project must be covered under the Caltrans Storm Water Permit (Order No. 99-06-DWQ), adopted in July 1999. The Caltrans Storm Water Permit covers all Caltrans construction activities. Caltrans is required to notify the Central Valley Board that a project is to be covered under the permit at least 30-days prior to the onset of construction. In addition, the Central Valley Board may require Caltrans to submit a Storm Water Pollution Prevention Plan to address potential water quality impacts.

Water Quality Certification (401 Certification)
Certifications are issued for activities resulting in dredge or fill within waters of the United States. All projects must be evaluated for the presence of jurisdictional waters, including wetlands and other waters of the state. Impacts to these waters should be avoided, minimized, and/or mitigated. Impacts to Water of the United States requires an Army Corps of Engineers (Corps) Clean Water Act (CWA) Section 404 Permit and a CWA Section 401 Water Quality Certification from the Central Valley Water Board. The Section 404 and 401 permits are required for activities involving a discharge (such as fill or dredged material) to Waters of the United States. "Waters" include wetlands, riparian zones, streambeds, rivers, lakes, and oceans. Typical activities include any modifications to these waters, such as stream crossings, stream bank modifications, filling of wetlands, etc. If required, the Section 404 Permit and Section 401 Certification must be obtained prior to site disturbance.

Dewatering Alternative 1: discharge to storm drains or waters of the United States –
A dewatering permit, *General Order for Dewatering and Other Low Threat Discharges to Surface Waters*, (Central Valley Board Order No. R5-2008-0081, adopted 12 June 2008) may be required for pump testing, pipeline dewatering and/or construction activities. This general NPDES (National Pollutant Discharge Elimination System) permit covers the discharge to waters of the United States of clean or relatively pollutant-free wastewater that poses little or no threat to water quality. The following categories are covered by the dewatering permit: well development water; construction dewatering; pump/well testing; pipeline/tank pressure testing; pipeline/tank flushing or dewatering; condensate discharges; water supply system discharges; miscellaneous dewatering/low threat discharges. The dewatering permit applies only to direct discharges to waters of the United States Failure to obtain a dewatering permit, when required, may result in enforcement action. An application form and a copy of the permit are available at this office.

Dewatering Alternative 2: discharges to land - Construction and system test dewatering discharges that are contained on land (i.e., will not enter waters of the United States) are allowed under a general waiver adopted under Regional Board Resolution No. R5-2008-0082 (Adopted 4 December 2008) provided the following conditions are met: (1) the dewatering discharge is of a quality as good as or better than underlying groundwater; and (2) there is a low risk of nuisance. Examples of dewatering discharges to land include a terminal basin, irrigation (with no return to waters of the United States), and dust control. You may request written confirmation from this office that the waiver is applicable.

If you have any questions or comments regarding this matter please contact me at (530) 224-4784 or by email at szaitz@waterboards.ca.gov.

Scott A. Zaitz, R.E.H.S.
Environmental Scientist
Storm Water & Water Quality Certification Unit

SAZ: wrb/knr

cc: Mr. Brian Vierria, U.S. Army Corp of Engineers, Sacramento
Department of Fish and Game, Region 2, Rancho Cordova
State Clearing House Number 2010032105, Sacramento

U:\Clerical\Storm_water\SZaitz\2010\CEQA Comment (Butte Creek Bridge Replacement).doc

Comment Letter #2 - Central Valley Flood Protection Board (CVFPB)

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-0685 FAX: (916) 574-0682

April 28, 2010

Ms. Kendall Schinke
Department of Transportation, Environmental Planning
703 B Street
Marysville, CA 95953

Dear Ms. Schinke:

SCH# 2010032105
Initial Study/Proposed Mitigated Negative Declaration
Butte Creek Bridge Replacement

Staff for the Central Valley Flood Protection Board has reviewed the subject document and provides the following comments:

The proposed project is located within the jurisdiction of the Central Valley Flood Protection Board (formerly known as The Reclamation Board). The Board is required to enforce standards for the construction, maintenance and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance,

inspection and flood fight procedures (Title 23, California Code of Regulations CCR Section 131).

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and state agencies, as other permits may apply.

If you have any questions please contact me at (916) 574-0651 or by email jherota@water.ca.gov.

Sincerely,

James Herota
Staff Environmental Scientist
Floodway Protection Section

cc:

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

Comment Letter #3 – National Oceanic Atmospheric Association's National Marine Fisheries Service (NOAA/NMFS) Letter of Concurrence

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

SEP 17 2010

In response refer to:
2010/03285

Ms. Kendall Schinke
Branch Chief, Environmental Management
Department of Transportation
District 3
703 B Street
Marysville, California 95901-0911

Dear Ms. Schinke:

This letter is in response to your June 30, 2010, request for initiation of section 7 consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*), concerning the Butte Creek Bridge Replacement project on State Route (SR) 99 located in northern Butte County, California. The California Department of Transportation (Caltrans) has determined that the proposed project may affect, but is not likely to adversely affect, threatened Central Valley (CV) spring-run Chinook salmon (*Oncorhynchus tshawytscha*), threatened CV steelhead (*O. mykiss*), or their designated critical habitats. In addition, Caltrans has determined that the proposed project may adversely affect the Essential Fish Habitat (EFH) of Pacific salmon, and has requested initiation of consultation pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA). This letter also serves as consultation under the authority of, and in accordance with, the provisions of the Fish and Wildlife Coordination act of 1934 (FWCA), as amended. NMFS recognizes that Caltrans is acting in conjunction with the Federal Highway Administration (FHWA) for this project and has assumed FHWA's responsibilities under Federal environmental laws as allowed by the Memorandum of Understanding between FHWA and Caltrans, which became effective on July 1, 2007.

The proposed project is located approximately 1.5 miles south of the City of Chico, between Post Miles (PM) 28.4 and 29.2. Caltrans proposes to replace the existing bridge with a new bridge constructed on the existing northbound (NB) alignment. The existing bridge is experiencing substructure scour and continued deck deterioration. The purpose of the project is to preserve the integrity of the transportation facility by replacing the NB Bridge. The southbound (SB) roadway will be utilized for detouring traffic and will require some reconstruction to strengthen the shoulders. Construction is scheduled to begin in February 2013, but may be postponed until April 2013 due to weather issues. Caltrans is proposing to demolish the existing bridge and construct a new bridge in three consecutive seasons. The project is scheduled to be completed in October 2016.

The new NB Bridge will be a reinforced concrete box girder bridge. Two abutments on piles and one pier wall on spread footings will support the two-span structure. The new bridge will be constructed on the existing tangent alignment, and will be approximately 324 feet long with two 12-foot wide lanes. There will be a 5-foot wide shoulder on the left side (inside), and a 10-foot wide shoulder on the right side (outside). Deck drains will be needed on the new bridge to drain storm water.

Construction will involve roadway cut/fill, grinding of the existing deck surface and/or structure, creating access roads, and equipment staging area, drainage and culvert work, work within the 100 year floodplain, temporary stream crossing, water diversion, temporary construction easements (TCEs), ground disturbance, vegetation removal, pile driving, seasonal construction windows, night work, work within the stream channel (including temporary stream crossings) and possibly placement of rock slope protection (RSP).

In-water construction activities will be conducted during the summer and early fall season where some water diversion will likely occur due to agricultural tailwater flows. Best management practices (BMPs) will be implemented into the proposed project to minimize downstream erosion and sedimentation. These BMPs include, but are not limited to, disturbed soils will be seeded, mulched, and fertilized; straw wattles; silt fences; sediment basins; or other control methods will be used to prevent sediments from entering Butte Creek.

Caltrans is incorporating the following measures to avoid and minimize potential impacts to CV spring-run Chinook salmon and CV steelhead:

(1) A qualified Biologist will inspect the work area prior to start of work to confirm absence of salmonids.
(2) In-water work will occur during the summer / early fall (July 15 to October 15) when flows are low and water temperatures are too warm to support salmonids.
(3) Silt curtains will be used around in-water work to minimize turbidity and sedimentation.
(4) Erosion control will be applied to disturbed soil areas prior to October 15.
(5) BMPs will be implemented into the proposed project to minimize impacts to waterways.
(6) Loss of riparian habitat will be minimized within the project area through preserving existing vegetation to the maximum extent possible and revegetating disturbed areas to establish permanent riparian cover.

ESA Section 7 Consultation

Based on our review of the material provided with your request and the best scientific and commercial information currently available, NMFS concurs that the Butte Creek Bridge Replacement project on SR 99 is not likely to adversely affect CV spring-run Chinook salmon and CV steelhead, or their designated critical habitats. NMFS reached this determination based on the incorporation of the following measures:

1. The following minimization measures have been incorporated into the proposed project description in order to reduce the potential for water quality impacts that could

potentially harm listed anadromous fish or their habitat to a level that is insignificant or discountable:

- BMPs will be incorporated into the proposed project to minimize the potential for water quality impacts and prevent deleterious materials from entering the channel that could potentially harm anadromous listed fish and their habitat.

2. Activities conducted in the active channel of the creek will be limited to the timeframe between July 15 and October 15 each in-water work window season when presence of salmonids is unlikely therefore impacts to listed fish would be insignificant or discountable.

3. Caltrans will replace all removed native riparian vegetation within the project area by replanting the same species on-site at a 3:1 ratio to maintain critical fish habitat.

4. Spawning habitat for these fish are approximately 16 miles upstream from the project action and critical habitat would be avoided, therefore the construction activities would be insignificant or discountable.

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. Conservation recommendations are discretionary agency activities intended to minimize or avoid adverse effects of a proposed project on listed species or critical habitat, to help implement recovery plans, or to develop information. In order to fulfill the requirements of section 7(a)(1), NMFS recommends that Caltrans purchase riparian credits from a NFMS approved anadromous fish conservation bank at a ratio of 2 acres to every 1 acre of the project area footprint that lies within 100 feet of the riparian zone associated with the channel.

This concludes ESA consultation for the Butte Creek Bridge Replacement project. This concurrence does not provide incidental take authorization pursuant to section 7(b)(4) and section 7(o)(2) of the ESA. Re-initiation of the consultation is required where discretionary Federal agency involvement or control over the proposed project has been retained (or is authorized by law), and if: (1) new information reveals effects of the proposed project that may affect listed species or critical habitat in a manner or to an extent not considered; (2) the proposed project is subsequently modified in a manner that causes adverse effects to listed species or critical habitat; or (3) a new species is listed or critical habitat designated that may be affected by the proposed project.

EFH Consultation

With regards to EFH consultation, the action area has been identified as EFH for Chinook salmon in Amendment 14 of the Pacific Salmon Fishery Management Plan pursuant to the MSA. Federal action agencies are mandated by the MSA (section 305(b)(2)) to consult with NMFS on all actions that may adversely affect EFH and NMFS must provide EFH conservation recommendations to those agencies (section 305(b)(4)(A)). Because the proposed project has incorporated specific measures designed to minimize impacts to salmonid habitat, NMFS concurs

with Caltrans that the proposed project will not adversely affect EFH. As a result, additional EFH conservation recommendations are not being provided at this time. However, if there are substantial revisions to the proposed project, the lead Federal agency will need to re-initiate EFH consultation.

FWCA

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development (16 U.S.C. 661). The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage (16 U.S.C 662(a)). Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. The FWCA provides the opportunity to offer recommendations for the conservation of species and habitats beyond those currently managed under the ESA and MSA. NMFS recommends that the ESA section 7(a)(1) conservation recommendations be adopted as a FWCA measure.

Please contact Dylan Van Dyne at (916) 930-3725, or via e-mail at Dylan.VanDyne@noaa.gov if you have any questions or require additional information concerning this project.

Sincerely,

For Rodney R. McInnis
Regional Administrator

cc: Copy to File ARN # 151422SWR2010SA00268
NMFS-PRD, Long Beach, CA

Comment Letter # 4 – United States Fish and Wildlife Service (USFWS) Biological Opinion

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

In reply refer to:
81420-2010-F-0985-1

OCT 7 2010

Ms. Kendall Schinke
California Department of Transportation
Branch Chief, Environmental Management
District 3
P.O. Box 911
Marysville, California 95901-0911

Subject: Review of the Proposed Butte Creek Bridge Replacement Project, Butte County, California, for Inclusion with the Valley Elderberry Longhorn Beetle Programmatic Consultation (Service File Number 1-1-96-F-0066)

Dear Ms. Schinke:

This letter responds to your June 14, 2010, request for initiation of formal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Butte Creek Bridge Replacement Project (proposed project) in Butte County, California. We received your request on June 15, 2010. The Service has reviewed the biological information submitted by the California Department of Transportation (Caltrans) describing the effects of the proposed project on the federally-listed as threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (beetle). The proposed project is not within critical habitat for any federally-listed species. Therefore, critical habitat will not be affected. The Service concurs that the proposed project is likely to adversely affect the beetle and can be appended to the Service's *Formal Programmatic Consultation Permitting Projects with Relatively Small Effects on the Valley Elderberry Longhorn Beetle Within the Jurisdiction of the Sacramento Field Office* (beetle programmatic) (Service file number 1-1-96-F-0066). This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).

This consultation is based on: 1) the *Biological Assessment for the Butte Creek Bridge Replacement Project, Butte County, California*, dated June 2010, received by the Service on June 15, 2010; 2) your letter of initiation, dated June 14, 2010, received June 15, 2010; 3) the site visit made on August 12, 2010; and 4) additional information available to the Service.

Consultation History

June 14, 2010	The Service received the letter and accompanying information from the Corps requesting initiation of section 7 consultation on the proposed project.
August 12, 2010	Site visit attended by representatives of the Service and Caltrans.
January 27, 2010	The Service received responses to questions from the site visit that was attended on August 12, 2010 from Caltrans via electronic mail.

Description of the Proposed Action

Caltrans is proposing to replace the Butte Creek Bridge on State Route (SR) 99 in Butte County with a new bridge constructed on the existing northbound (NB) alignment. The existing bridge is experiencing substructure scour and continued deck deterioration. The purpose of the project is to preserve the integrity of the transportation facility by replacing the existing NB Bridge. The southbound roadway will be utilized for detouring traffic and will require some reconstruction to strengthen the shoulders. The project area is located just south of the City of Chico between Post Miles 28.4 and 29.2. Construction is scheduled to begin in June 2012. The project is scheduled to be completed in October of 2015.

Conservation Measures

The proposed project site has 11 elderberry shrubs (*Sambucus* sp.), the sole host plant for the beetle. The proposed project will directly affect six shrubs. Construction activities will directly affect six of the elderberry shrubs with a total of 23 stems greater than one inch in diameter at ground level due to the removal of the shrubs. The shrubs within the project area are too difficult to transplant due to their location underneath the bridge. Caltrans has proposed compensation for all six of the directly affected elderberry shrubs. These six shrubs will be removed as part of the proposed project, and will not be transplanted. All six shrubs with a total of 23 stems will be lost as a result of the proposed project. The location and topography of the elderberry shrubs beside and under the bridge would make it very difficult for equipment to access and/or remove the shrubs in these locations. Therefore, Caltrans has proposed to compensate twice the recommended ratio due to the shrubs being lost and not transplanted. Therefore, the total compensation proposed by the applicant is 0.678 acre (see Table 1). The remaining five shrubs will be protected from effects to the beetle as proposed by the project applicant and as outlined in the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (Service 1999) (Guidelines) as referenced in the beetle programmatic consultation through the following conservation measures:

Table 1: Proposed compensation ratios for the beetle for the Slope and Pipe Repair Project.

Stem Diameter	Number of Stems	Exit Holes (Y/N)	Seedling Ratio	Native Plant Ratio	Total Seedling	Total Native Plants	Acres
Non-Riparian							
Stems ≥1" to ≤3"	13	N	1:1	1:1	13	13	
Riparian							
Stems ≥1" to ≤3"	6	N	2:1	1:1	12	12	
Stems :> 5"	4	N	4:1	1:1	16	16	
TOTAL	**23**				**41**	**41**	**0.339**
2X					**82**	**82**	**0.678**

The Service has determined that it is appropriate to append the proposed Butte Creek Bridge Replacement Project to the beetle programmatic. This letter is an agreement by the Service to append the proposed project to the beetle programmatic and represents the Service's biological opinion on the effects of the proposed action. Compensation for projects appended to the beetle programmatic involves adhering to the Guidelines, except as approved by the Service. Compensation implemented through the Guidelines should lead to the development of protected habitat areas distributed across the landscape. These protected areas can then be used as foundations for future habitat conservation plans by local communities. Prior to any ground disturbing activities associated with the proposed project, the project applicant shall fulfill the compensation outlined in Table 1. The Service is tracking losses of beetle habitat permitted under the beetle programmatic. The Service reevaluates the effectiveness of this programmatic at least every six (6) months to ensure continued implementation will not result in unacceptable effects to the beetle or the habitats upon which it depends.

1. Avoided shrubs will be shown on construction plans as environmentally sensitive areas (ESA). The contractor will be required to install temporary ESA fencing before any work begins to protect all five avoided shrubs against inadvertent construction related impacts.

2. Contractors and Caltrans construction personnel will be educated about the importance of the elderberry shrubs and the consequences of damaging the shrubs. Contractors and workers will be informed about the status of the beetle and the need to protect its host plant, the elderberry shrub, prior to construction. This will take place at a pre-construction meeting between Caltrans and the contractor.

3. Signs will be placed on the ESA fencing stating: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs will be readable from 20 ft away and will be maintained during the entire duration of construction.

4. Any disturbed ground within the buffer areas will be restored after construction is complete. The affected areas will be re-vegetated with native plants appropriate for the project location.

5. Prior to commencement of construction, buffer and core avoidance areas will be protected: Protective ESA fencing will be in place, signs designating the ESAs will be in place, and approved by the Caltrans biologist. Insecticides, herbicides, fertilizers, or other chemicals will not be used in core or buffer areas within the project limits.

6. Best Management Practices will be in place during construction and will serve to minimize soil erosion and airborne dust.

A more detailed description of the proposed project can be found in the June 2010, *Biological Assessment for the Butte Creek Bridge Replacement Project.*

Action Area

The action area is defined in 50 CFR §402.02, as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action." For the proposed action, the Service considers the action area to be the footprint of the proposed project. This includes the grading required for the bridge replacement extending 100 feet from the footprint of the project as detailed in the Biological Assessment.

Evaluation under Programmatic Consultation

This letter is an agreement by the Service to append the proposed project to the Programmatic Consultation and represents the Service's biological opinion on the effects of the proposed action. Compensation for projects appended to the Programmatic Consultation involves adhering to the Service's Guidelines, except as approved by the Service. Compensation implemented through the Guidelines should lead to the development of protected habitat areas distributed across the landscape. These protected areas can then be used as foundations for future habitat conservation plans by local communities. Prior to any ground disturbing activities associated with the proposed project, the project applicant shall fulfill the compensation outlined in Table 1.

Effects of the Proposed Project

Construction activities in the area are likely to directly adversely affect six elderberry shrubs with 23 stems one inch or greater in diameter at ground level. The remaining shrubs are not likely to be adversely affected based on the buffer area and the avoidance and minimization measures proposed by the applicant.

The construction activities associated with the proposed project would result in harm or harassment of the beetle in the form of habitat modification and disruption of normal behavior patterns. The six shrubs are located in an area in which they would be directly affected by construction activities. In addition, these shrubs are located in an area where they would be difficult to transplant. Therefore, the six shrubs are going to be removed and the Service has determined that the proposed project will adversely affect the elderberry shrubs and therefore, the beetle.

The proposed project will adversely affect the beetle; however, the proposed conservation measures should minimize effects to the beetle. Compensation for the project as proposed by the project applicant will occur at a Service-approved conservation bank or through an in-lieu fund for the beetle that will purchase bank credits when they become available. The bank will be protected and managed for the beetle in perpetuity, which will aid in maintaining the distribution of the beetle and potentially increase beetle populations.

Conclusion

After reviewing the current status of the beetle, the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the Butte Creek Bridge Replacement Project, as proposed, is not likely to jeopardize the continued existence of the beetle.

The proposed project, as described, fits within the parameters of the level of take anticipated in the beetle programmatic and is not likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the beetle in the wild.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking incidental to and not intended as part of the agency project is not considered to be prohibited taking under the Act, provided that such taking is in compliance with this Incidental Take Statement.

Amount or Extent of Take

The Service expects that incidental take of the beetle will be difficult to detect or quantify. The cryptic nature of this species and their relatively small body size make the finding of an injured or dead specimen unlikely. Additionally, the species occurs in habitats that make them difficult to detect. Due to the difficulty in quantifying the number of beetles that will be taken as a result of the proposed project, the Service is quantifying take incidental to the project as death, injury, harassment, and harm of all beetles inhabiting or otherwise utilizing the six directly affected elderberry shrubs with 23 stems one inch or greater in diameter at ground level, as described in this biological opinion for the project. The incidental take associated with the proposed action on valley elderberry longhorn beetle is hereby exempted from prohibitions of take under section 9 of the Act.

Effect of the Take

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the beetle.

REINITIATION—CLOSING STATEMENT

This concludes the Service's review of the proposed Butte Creek Bridge Replacement Project. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion please contact Jason Hanni, Staff Biologist, or the Acting Sacramento Valley Branch Chief, at (916) 414-6645.

Sincerely,

for Susan K. Moore
Field Supervisor

LITERATURE CITED

U.S. Fish and Wildlife Service. 1999. Conservation Guidelines for the Valley Elderberry Longhorn Beetle.

State Clearing House Letter - Document Details Report

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

April 29, 2010

Kendall Schinke
California Department of Transportation, District 3
703 B Street
Marysville, CA 95901

Subject: Butte Creek Bridge Replacement Project
SCH#: 2010032105

Dear Kendall Schinke:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on April 28, 2010, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

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

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

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

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

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2010032105
Project Title Butte Creek Bridge Replacement Project
Lead Agency Caltrans #3

Type MND Mitigated Negative Declaration

Description The California Department of Transportation proposes to replace in kind the northbound (NB) Butte Creek Bridge (Br. No. 12-0126R) on State Route 99 in Butte County, with a new bridge to be constructed on the existing northbound bridge alignment. The existing bridge structure is experiencing substructure scour and continued deck deterioration and is in need of a replacement. Two NB and two southbound (SB) lanes of traffic would be provided through the construction zone. The project would use both state and federal funding.

Lead Agency Contact

Name Kendall Schinke
Agency California Department of Transportation, District 3
Phone 530-471-4591 **Fax**
email
Address 703 B Street
City Marysville **State** CA **Zip** 95901

Project Location

County Butte
City
Region
Lat / Long
Cross Streets Between Estates Drive and Southgate and Entler Ave intersection
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 99
Airports
Railways Union Pacific
Waterways Butte Creek
Schools
Land Use Commercial and Residential

Project Issues Air Quality; Biological Resources; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 2; Office of Historic Preservation; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; Office of Emergency Management Agency, California; California Highway Patrol; Caltrans, District 3; Regional Water Quality Control Bd., Region 5 (Redding); Native American Heritage Commission; State Lands Commission

Date Received 03/30/2010 **Start of Review** 03/30/2010 **End of Review** 04/28/2010

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

California Regional Water Quality Control Board
Central Valley Region

Katherine Hart, Chair

Linda S. Adams
Secretary for Environmental Protection

415 Knollcrest Drive, Suite 100, Redding, California 96002
(530) 224-4845 • Fax (530) 224-4857
http://www.waterboards.ca.gov/centralvalley

Arnold Schwarzenegger
Governor

Sch #2010032105

5 April 2010

Clear 4.28.10 e

Mr. Kendall Schinke
California Department of Transportation
703 B Street
Marysville, CA 95901

COMMENTS ON THE NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR PROPOSED BUTTE CREEK BRIDGE REPLACEMENT PROJECT, NEAR CHICO, BUTTE COUNTY

The Central Valley Regional Water Quality Control Board (Regional Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 1 April 2010, our office received a Notice of Intent to Adopt A Mitigated Negative Declaration, Environmental Initial Study, Site Map, and Request for Comments Letter from your office regarding the proposed development referenced above.

The California Department of Transportation proposes to replace in kind the northbound Butte Creek Bridge (Br. No. 12-0126R) on State Route 99 in Butte County, with a new bridge to be constructed on the existing northbound bridge alignment. The existing bridge structure is experiencing substructure scour and continued deck deterioration and is in need of replacement. Two northbound and two southbound lanes of traffic would be provided through the construction zone. The project is located in Butte County on State Route (SR) 99 just south of the City of Chico, between Estates Drive intersection and the Southgate and Entler Avenue intersection. Within the limits of the project, SR 99 is a 4-lane expressway with two lanes traveling southbound and two lanes traveling northbound. The northbound roadway consists of two 12-foot lanes and 8-foot shoulders, while the southbound roadway consists of two 12-foot lanes and 5 to 10-foot shoulders.

The following comments are provided to help outline the potential permitting which may be required by the Regional Water Board, policy issues concerning the project, and suggestions for mitigation measures. Our present comments focus primarily on discharges regulated under our CWA §401 and storm water programs.

Water Board entitlements include:

• Fill or dredged material discharges	Clean Water Act (CWA) §401 water quality certification for federal waters; or Waste Discharge Requirements for non-federal waters
• Storm water and other wastewater discharges	CWA §402 NPDES permit; Storm Water Discharges Associated with Construction Activity

If you have any questions or comments regarding this matter please contact me at (530) 224-4784 or by email at szaitz@waterboards.ca.gov.

Scott A. Zaitz

Scott A. Zaitz, R.E.H.S.
Environmental Scientist
Storm Water & Water Quality Certification Unit

SAZ: wrb/knr

cc: Mr. Brian Vierria, U.S. Army Corp of Engineers, Sacramento
Department of Fish and Game, Region 2, Rancho Cordova
State Clearing House Number 2010032105, Sacramento

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RESPONSES TO COMMENT LETTERS

Response to Letter #1 - CVRWQCB

The Caltrans Storm Water Permit, which covers all Caltrans construction activities, will be implemented into this project along with a Storm Water Pollution Prevention Plan (SWPPP). As requested, the Water Board will be notified at least 30 days prior to the start of construction. Both the Caltrans Storm Water Permit and the SWPPP are standard requirements for the Department.

Both the Section 404 Permit and Section 401 Certification will be implemented into the project addressing potential impacts to Waters of the State. The permits, certifications and/or approvals will be obtained at the appropriate time, as requested. The Environmental Document's content reflects the required certifications and/or permits.

Regardless of the type of dewatering method used, the project will comply with Caltrans' dewatering standards, which includes all appropriate approvals and/or dewatering permits as needed by the regulatory agencies.

Response to Letter #2 - CVFPB

Based on project's scope of work, Caltrans will apply for a Central Valley Flood Protection Board Permit as appropriate based on the conditions put forth by the Central Valley Flood Protection Board.

Response to Letter #3 – NOAA/NMFS

The California Department of Transportation will ensure to follow the commitments and minimization measures outlined in your September 2010 Letter of Concurrence. Main points include the following:

- A qualified biologist will inspect the work area prior to start of work to confirm absence of salmonids.
- The in-stream work window will be limited from July 15 to October 15.
- Silt curtains and BMPs will be implemented to minimize potential water quality impacts
- Replanting the native riparian vegetation will be at a 3:1 ratio.
- Loss of riparian habitat will be minimized within the project area through preserving existing vegetation to the maximum extent possible and re-vegetating disturbed areas to establish permanent riparian cover.

- Erosion control will be applied to disturbed soil areas prior to October 15.

According to your Letter of Concurrence, you recommend that in order to comply with Section 7(a)(1) the agency might purchase riparian credits from a NMFS approved anadramous fish conservation bank at a ratio of 2 acres to every one acre of the project area footprint that lies within 100 feet of the riparian zone associated with the channel. Caltrans will consider that measure as the design of the project evolves in the Plans Specifications and Estimates (PS&E) phase.

Response to Letter #4 – USFWS

In response to your October 2010 Biological Opinion letter, Caltrans will implement the required minimization and mitigation measures into the project. Key minimization and/or mitigation measures include the following:

- Because approximately 9 unit credits of the valley elderberry shrub will need to be removed for the project, Caltrans will purchase 18 credits from an approved VELB mitigation bank, providing a 2:1 mitigation ratio as requested by USFWS. As stated in your letter, the compensation must be fulfilled prior to any ground disturbing activities.
- All other VELB shrubs within the project area will be protected with ESA fencing and signage. Contractors and Caltrans staff will be educated on the importance of protecting the VELB species and its primary host plant. ESA fencing must be put in place with the guidance of a Caltrans biologist before any construction activities occur.
- Any disturbed ground around shrubs (buffer area) will be restored after construction is complete. The disturbed soil shall be re-vegetated with native vegetation appropriate to the area.
- BMPs will be implemented before and during construction, as appropriate, throughout the project.

Onsite Mitigation and Monitoring Proposal for the California Department of Transportation's

Butte Creek Bridge Replacement Project on State Route 99 in Butte County

03-BUT-99
PM 28.1/29.6
EA: 03-3E6201/EFIS: 03-0000-0509-1

Prepared by:

Kelley Nelson
Associate Environmental Planner/Natural Sciences
(530) 741-4583

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Mitigation/Revegetation Specialist
(530) 740-4850

Caltrans District 3 Stewardship Branch

May 2012

Approved By:

S Melim Date: 5/8/12

Suzanne Melim
Environmental Branch Chief
Office of Environmental Management
Caltrans District 3 North Region

Sharon Stacey Date: 5/8/12

Sharon Stacey
U.S. Army Corps of Engineers Liaison
Office of Environmental Management
Caltrans District 3 North Region

INTRODUCTION

The California Department of Transportation (Caltrans), in conjunction with the Federal Highway Administration (FHWA), is proposing a northbound bridge replacement project on State Route (SR) 99 in Butte County from highway post miles (PM) 28.4 to 29.4 (Figures 1 and 2). The project area can be located on the Chico USGS 7.5-minute quadrangle (Section 8 of Township 21N Range 2E). The Environmental Study Limit (ESL) encompasses an area of approximately 11 acres.

This Mitigation Monitoring Proposal (MMP) serves to satisfy the revegetation and water quality requirements of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), the National Marine Fisheries Service (NMFS), and the Central Valley Regional Water Quality Board (CVRWQB). The MMP is also being prepared to satisfy General Condition 13 of the USACE's Nationwide Permit 23 (Approved Categorical Exclusions), which states that a pre-construction notification (PCN) must include a compensatory mitigation proposal with reasonable measures to avoid and minimize adverse effects to aquatic resources.

This plan proposes measures to replace woody riparian trees, removed by construction activities, on a 3:1 ratio. Planting is proposed at three locations upstream of the bridge (Exhibit A) on property owned by the California Department of Fish and Game. The three locations were identified during an interagency field meeting on April 24, 2012, between representatives from California Department of Transportation, California Dept. of Fish and Game and California Department of Water Resources. Previously proposed planting locations caused flooding and increased maintenance concerns for the California Department of Water Resources who is responsible for maintaining the floodplain. Maintenance activities currently include clearing, or reducing vegetation and limbing of trees, except within the 15 feet adjacent to the water's edge, which in agreement with the California Department of Fish and Game, the Department of Waters Resources leaves as a vegetated buffer and does not do any maintenance in. The Department of Water Resources requested Caltrans identify planting locations at least 50 feet upstream or downstream of the bridge and within this 15 foot buffer zone.

PROJECT DESCRIPTION

The existing northbound (NB) bridge structure over Butte Creek is experiencing substructure scour and continued deck deterioration and is in need of a replacement. This bridge has a history of severe deck issues as a result of being constructed with poor materials and is experiencing continual spalling, or chipping away of material. The purpose of the project is to maintain the integrity of the transportation facility by replacing the existing bridge structure.

Within the limits of the project, SR 99 is a 4-lane expressway with two lanes traveling southbound (SB) and two lanes traveling NB. The NB roadway consists of two 12-foot lanes and 8-foot shoulders, while the southbound roadway consists of two 12-foot lanes and 5 to 10-foot shoulders.

The existing bridge structure is a 5 span continuous reinforced concrete structure with 4 pier walls that is approximately 323 feet long and 43.5 feet wide. The new bridge would be a 324 feet long reinforced concrete box girder bridge with two 12-foot-wide lanes and a 5-foot wide shoulder on the west side and 10-foot wide shoulder on the east side. Two abutments on piles and 1 pier wall on spread footings would support the 2 span structure. Temporary false work,

cofferdams, and a creek diversion/gravel pad crossing will be required for the demolition and construction of the new bridge.

Roadwork will involve removing and replacing failed pavement areas, reconstructing existing shoulders, placing new Asphalt Concrete (AC) pavement, grinding Portland Cement Concrete (PCC), constructing a temporary crossover median detour, temporary culverts, extending existing culverts, replacing drains, placing Rock Slope Protection (RSP), removing and replacing flashing beacons and traffic sensors, installing temporary highway lighting, and constructing new bridge approach metal beam guard railing (MBGR). The southbound roadway will be utilized for detouring traffic and will require some reconstruction to strengthen the shoulders. The roadways (NB and SB) within the project limits will be paved with an Open Graded Friction Course-OGFC, formally known as Open Graded Asphalt Concrete overlay.

Both the NB and SB lanes will remain open through the construction zone. The SB bridge (#12-0126L) will accommodate three lanes of traffic separated by a temporary concrete barrier (two SB lanes and one NB lane), requiring a one-lane crossover median detour. While the bridge is under construction, it will accommodate one lane of traffic at a time while the other half is in being constructed. Once one half of the bridge is built, traffic will switch to the newly constructed half, and the other half of the bridge will be built.

Vegetation in Butte Creek, adjacent to the bridge varies by channel landform and current maintenance activities. On the upstream side of the bridge there is a 20-foot wide strip of riparian vegetation that borders Butte Creek on the south bank. This vegetation is dominated by large alders (*Alnus rhombifolia.*), along with some sycamore (*Platanus racemosa*) and Oregon ash (*Fraxinus latifolia*), all of which are adjacent to the bridge area and form a dense vegetation band along the bank. The northeast side of the creek is dominated by willows including sandbar willow (*Salix exigua*), arroyo willow (*S. lasiolepsis*), and red willow (*S. laevigata*). This is more of an ephemeral side channel area. The willows here are young and are likely either regularly removed by high flows, or with flood maintenance activities. There are also Fremont cottonwoods (*Populus fremontii*) present immediately north of the willow area, further from the water channel. Sycamore and ash are interspersed here as well, along with an understory of annual grasses and forbs. The riparian vegetation here consists of groupings of trees or individuals scattered over the floodplain, with most of these appearing to be limbed by flood control activities. The southwest and northwest banks of the creek on the downstream side of the bridge, do not currently have riparian trees present near the creek, likely due to vegetation clearing.

The understory in the floodplain adjacent to the bridge consists mainly of yellow star thistle (*Centaures solstitialis*), tree-of-heaven (*Ailanthus altissima*), scotch broom (*Cytisus scoparius*), wild grape (*Vitis californica*), Himalayan blackberry (*Rubus discolor*), mugwort (*Artemesia douglasiana*), sedge (*Cyperus* sp), mint (*Mentha* sp.), plantain (*Plantago major*), and poison oak (*Toxicodendron diversilobum*).

No wetlands will be impacted by the project as there are none within project limits, however; there will be approximately 0.11 acres of permanent impacts, and 0.48 acres of temporary impacts to other waters of the U.S. in Army Corps of Engineers and California Department of Fish and Game jurisdictional areas.

Work windows will be utilized, and construction activities will be conducted during the dry season. Where possible, equipment will be used outside of the active stream channel. Staging areas will be on existing disturbed areas; vegetation will be trimmed rather than removed where feasible; environmentally sensitive areas (ESA's) will be established around elderberry shrubs that will not be impacted by project activities; riparian and stream habitat disturbed by the project will be restored; and Caltrans Best Management Practices (BMPs) for containment measures and erosion control will be utilized as well. Elderberry shrubs permanently lost by project activities will be mitigated for at an approved conservation bank.

NMFS has requested that Caltrans mitigate at a 3:1 ratio for loss of riparian species adjacent to the creek that provide shading. Restoration of the habitat will potentially benefit overall water quality as well as provide shaded riverine habitat for aquatic species, including salmon and trout that utilize Butte Creek as a migration corridor. Having only one pier in the creek along with RSP on the southeast bank, partially in the water, will potentially benefit overall water quality and improve the existing functions and values of surface water systems within and downstream from the ESL.

PROJECT IMPACTS
There are no wetlands within project limits, therefore no compensation for these waters of the U.S. will be necessary.

A total of 0.082 acre of USACE jurisdictional (below the ordinary high water mark) other waters of the U.S., including Butte Creek and the one culvert drainage exhibiting a defined channel, will be permanently impacted by the placement of 461.27 yds^3 of fill. Approximately 460 yds^3 of this fill will come from the construction of a new concrete pier and footing for the new northbound bridge, and placement of Rock Slope Protection (RSP) in the creek.

A total of 0.47 acre of soil and vegetation will be temporarily impacted above the ordinary high water mark in the bridge area. This includes the approximately 16 riparian trees that will be removed due to the construction of temporary access roads, and other project construction related activities. The trees consist mainly of cottonwoods, alders, and sycamores.

There are also five culverts within project limits that will be extended during construction activities. None of these are jurisdictional due to having no connectivity to other waters. These culverts serve only to convey stormwater or roadside runoff after rain events. They are not included under biological impacts or mitigation measures, and will be revegetated as part of Caltrans permanent erosion control measures.

GOAL
A 3:1 replacement ratio of riparian trees removed by construction activities.

OBJECTIVE
The proposed mitigation intends to successfully establish 50 riparian trees at the end of the five year responsibility period.

IMPLEMENTATION AND SCHEDULE
Project construction activities are scheduled to begin in the year 2012 and will most likely extend over three construction seasons. Temporary on-site erosion control will be in place at the end of

each work season, and permanent erosion control will be provided by the close of the final work season. Planting will begin in the fall following completion of construction (approximately fall of 2015). Planting is proposed over the period between October 15 and November 15. This window will allow for plants to establish before the onset of cold temperatures and high flows. If supplemental planting is needed, it will be implemented the following winter/spring, between February 15 and March 15. Caltrans will contract with the California Conservation Corps to implement planting, watering and maintenance. Planning and oversight of all work will be done by the Caltrans Revegetation Specialist.

PLANTING PLAN

Three locations were selected for planting as part of an interagency field review on Tuesday April 24, 2012. These locations were chosen because of their distance from the bridge structure to reduce flood concerns (greater than 50 feet), but also by their current lack of woody vegetation and appropriate conditions for planting (close enough to water). In general, the 15 foot buffer zone along Butte Creek water channel is densely vegetated, but there are areas along the water channel that lack woody riparian vegetation (Exhibit A). There was not one area large enough to ensure adequate room for Caltrans planting needs, so three areas were selected, each with varying site characteristics, and believed acceptable for planting and achieving our mitigation goal (Exhibit A). The limits of these planting areas are provided in Exhibit A. Due to variability in soil and habitat conditions, the specific placement of plants will be determined in the field prior to planting, not on project plans. In general, the lower limit of the 15 foot planting zone will be identified in the field based on the typical water line or lower limit of vegetation establishment.

PLANTING STRATEGY

This plan proposes to plant many small container plants and cuttings, many more than is needed to allow for natural mortality, site conditions and plant variability. Past mitigation results has shown Caltrans that better overall long term plant survival and establishment is achieved when:

- Plant using many small plants, planted over a larger area,
- Use of plants with a natural root to shoot ratios, that have not been in the nursery for long periods of time,
- planted in fall (Oct-Nov) when temperatures are still warm enough for root growth
- planted in fall to take advantage of the full precipitation season
- and require less summer watering or maintenance

This strategy increases our chances of putting the right plant, in the right place, under the right conditions for long term success, rather than using a strategy based on planting just the number needed to be successful and then watering and performing maintenance for several years to ensure success of those specific individual plants.

Site A - Cut Slope: This location is on the south side of the creek, approximately 700-900 feet upstream of the bridge (Exhibit A). This is a cut bank that currently has little vegetation and appears unstable (actively eroding). On close inspection, some areas are stabilizing and vegetation is establishing. Caltrans is proposing to plant a narrow band of alder, mulefat and sandbar willow along the edge of the water channel. Alder will be from container materials and will be planted approximately 20 feet apart. Sandbar willow and mulefat will be from cuttings, both of which are shrub sized plants rather than trees. Cuttings will be 24 inches in length, and

will be planted 18 inches into the soil, approximately 3-5 feet apart. Cuttings have variable success, so many more than is needed will be planted. All planting at this location will be within 1-2 feet of the water line. Planting will only occur at the base of the slope, the upper portions of the slope are too steep for planting.

Site B – Terrace: The second location is a grassy terrace just upstream of Site A, on the south side of the creek, approximately 900-1100 feet upstream of the bridge (Exhibit A). The terrace is a few feet above the water's edge, with just a few widely spaced trees present. Caltrans is proposing to plant on the terrace, over the 15 foot buffer zone from the water's edge. Plantings here will focus on cottonwood, Oregon ash and sycamore, with a few willow and mulefat. Cottonwood and sycamore from containers, will be planted approximately 15 feet apart, with mulefat and willow planted from cuttings, between them approximately 5 feet apart.

Site C – Bedrock Area: The third location is on the north side of the creek approximately 1100-1250 feet upstream of the bridge. This location has a large bare area that extends out into the water channel that corresponds to hardpan or bedrock exposed at the surface (Exhibit 1). Planting areas appear to be present on the west and north sides of the bedrock outcrop. Caltrans is proposing to plant a mix of sycamore, Oregon ash and cottonwood approximately 15 feet apart, with willow and mulefat planted between them approximately 5 feet apart. Planting will only occur within the buffer zone, within the 15 feet of the water's edge, outside of the bedrock.

SPECIES TO BE PLANTED

white alder (*Alnus rhombifoli)*
Oregon ash (*Fraxinus latifolia)*
arroyo willow (*Salix lasiolepsis*)
red willow (*Sali. laevigata)*
California sycamore (*Platanus racemosa*)
sandbar willow (*Salix exigua*)
Fremont cottonwoods (*Populus fremontii*)

PLANT MATERIALS

All cuttings and container plants will be from sources generated from the vicinity of the project. Cuttings will be taken from sources upstream and downstream of the work area, with no more than 50% of willows in the area affected and no more than 30% of individual plants removed. Container plants will be purchased from a commercial nursery and will be from source material from the vicinity of the project and similar elevation and habitat characteristics.

MULCH

No mulching will occur because all planting will be performed in the active channel and any mulch placed will be carried away by water flows.

IRRIGATION

Container plants and cuttings will be watered at planting and will receive supplemental watering by hand, using water from Butte Creek. Watering will be done by the CCC at the direction of the Revegetation Specialist. The watering schedule will be based on natural precipitation, temperature, and site monitoring to determine actual needs. The goal will be to provide water necessary to successfully establish deep-rooted plants that are quickly able to survive on their own, rather than shallow surface-rooted plants that rely on regular watering. To accomplish this goal, the proposed schedule will be to water plants after planting once a week for four weeks, and then once every other week until the onset of rains in fall. Watering will be performed over the first summer, if determined necessary, based on site reviews. Watering will be performed over

the fall and summer of the second year only if additional planting is implemented and watering is determined needed. Irrigation does not need to be long term because planted material will be within reach of water table within the first season.

MAINTENANCE PLAN
Caltrans will maintain the plantings for five years. The plantings are expected to successfully establish within the first season. However, maintenance will be available over the 5 year responsibility period. Maintenance funding will be built into the five year CCC contract to address needed remedial measures. Potential maintenance will include such activities as replacement plantings, removing dead plants or weeding plant basins. All maintenance actions will be under the direction of the Caltrans Revegetation Specialist.

Site inspections are proposed after planting, and then over the following five growing seasons. These site inspections will help identify the need for specific maintenance actions. The mitigation areas will be inspected at least twice the first fall after planting and four times over the first summer to verify plant establishment, growth, watering and maintenance needs, and to check whether any problems have occurred. If no problems have occurred, two inspections per year will be performed during years two through five. If problems are identified, additional inspections may be necessary to verify that adequate remedial action has taken place.

PROTECTIVE SIGNS
Caltrans will mark plantings and work with Water Resources and California Department of Fish and Game to place signs to identify mitigation.

WEEDS
Weeds will be hand removed from planting basins and planting areas to reduce competition. The only weeds we will address will be ones that threaten the survival of the plantings, example giant reed grass, broom, tamarisk, or yellow star thistle that occur immediately adjacent to plantings. Caltrans does not propose to remove invasive weeds from larger areas around the bridge or mitigation planting areas.

LONG TERM MAINTENANCE
No long term maintenance actions are proposed after successfully achieving our mitigation goals and the five year responsibility period is complete. Planting will be completely within the 15 foot buffer along the water channel where routine maintenance is not implemented.

MONITORING
Monitoring will be performed once each year, for 5 years, between April 1 and June 1 of each year. Riparian sites with primarily deciduous plants should be monitored before dry conditions occur and plants loose leaves, leading to possible incorrect conclusions regarding survival. Monitoring for this project will involve a census of plants to determine survival rate of planting and cuttings. Results will be documented on aerials or project plans. Permanent photo points will be set up to document the revegetation effort and show yearly increases in cover

MONITORING REPORT
Results from monitoring will be documented and forwarded to regulatory agencies annually for 5 years. The report would be submitted no later than December 31st of each year. The first monitoring report would be submitted by December 31st of the second year post-construction. If

the mitigation activities have met the criteria described below, then the mitigation will be considered successful, a final annual report will be submitted, and no further monitoring or maintenance activities will be conducted beyond the 5 year monitoring period

SUCCESS CRITERIA

First –Second year success criteria will be met if:

- A minimum of 75 riparian trees have survived from the initial planting.

Third-Fifth year success criteria will be met if:

- A minimum of 50 riparian trees have survived from the initial planting
- Continual increases in plant cover are documented through photos.

ADAPTIVE MANAGEMENT/REMEDIAL MEASURES

If success criteria are not met for all or any portion of the mitigation project in any year, additional effort will be made to meet the requirements. The reason for not meeting the success criteria will be evaluated and corrected. If significant measures are needed, the planting strategy will be re-evaluated, including looking at soil conditions, hydrology, site preparation, planting techniques, and plant materials. Caltrans will coordinate with the regulating agencies to determine appropriate remedial actions, which could include in lieu fees or other off-site measures. If significant remediation measures are needed, the maintenance, monitoring, and reporting obligations will continue for 5 years after implementation of such measures or until the success criteria have been met, whichever occurs first.

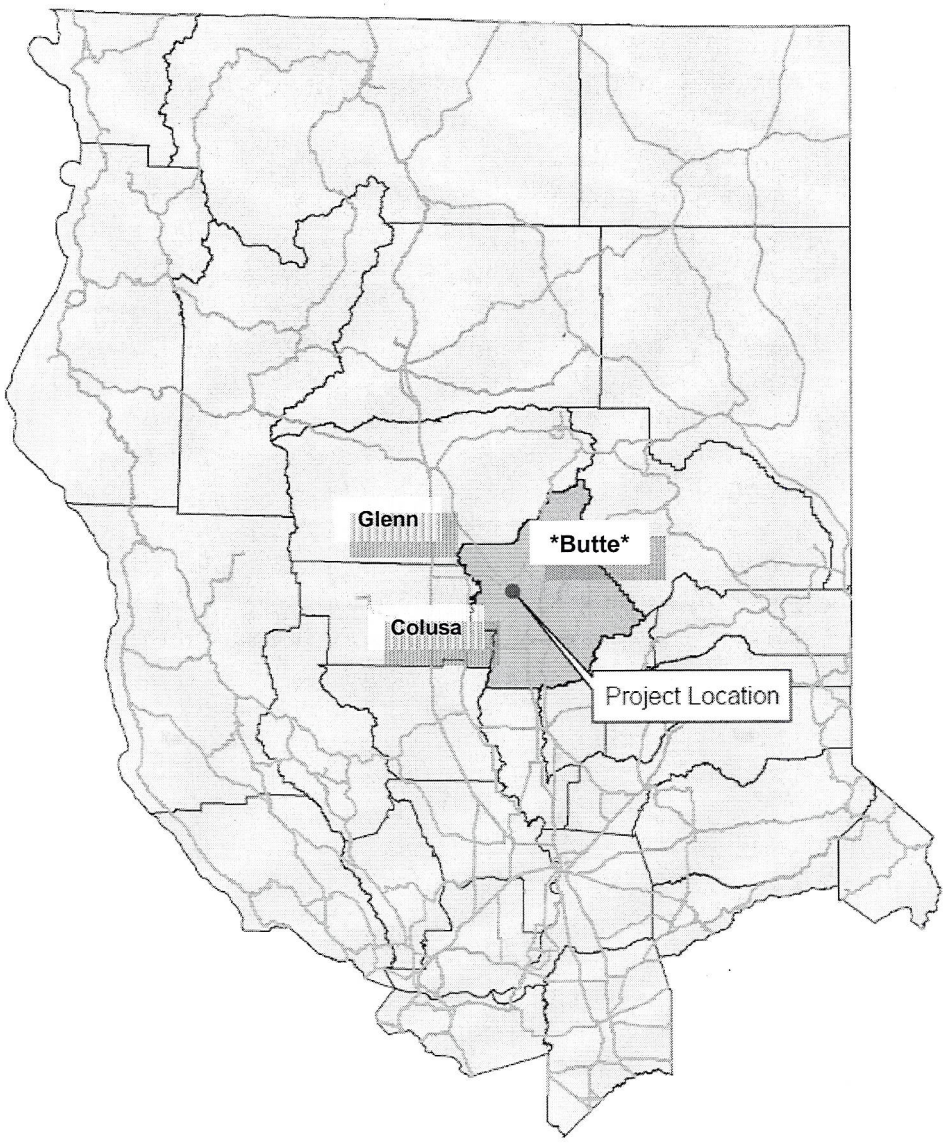

Figure 1. Project Vicinity Map

03-BUT-99
PM 28.4/29.4
EA 03-3E6200

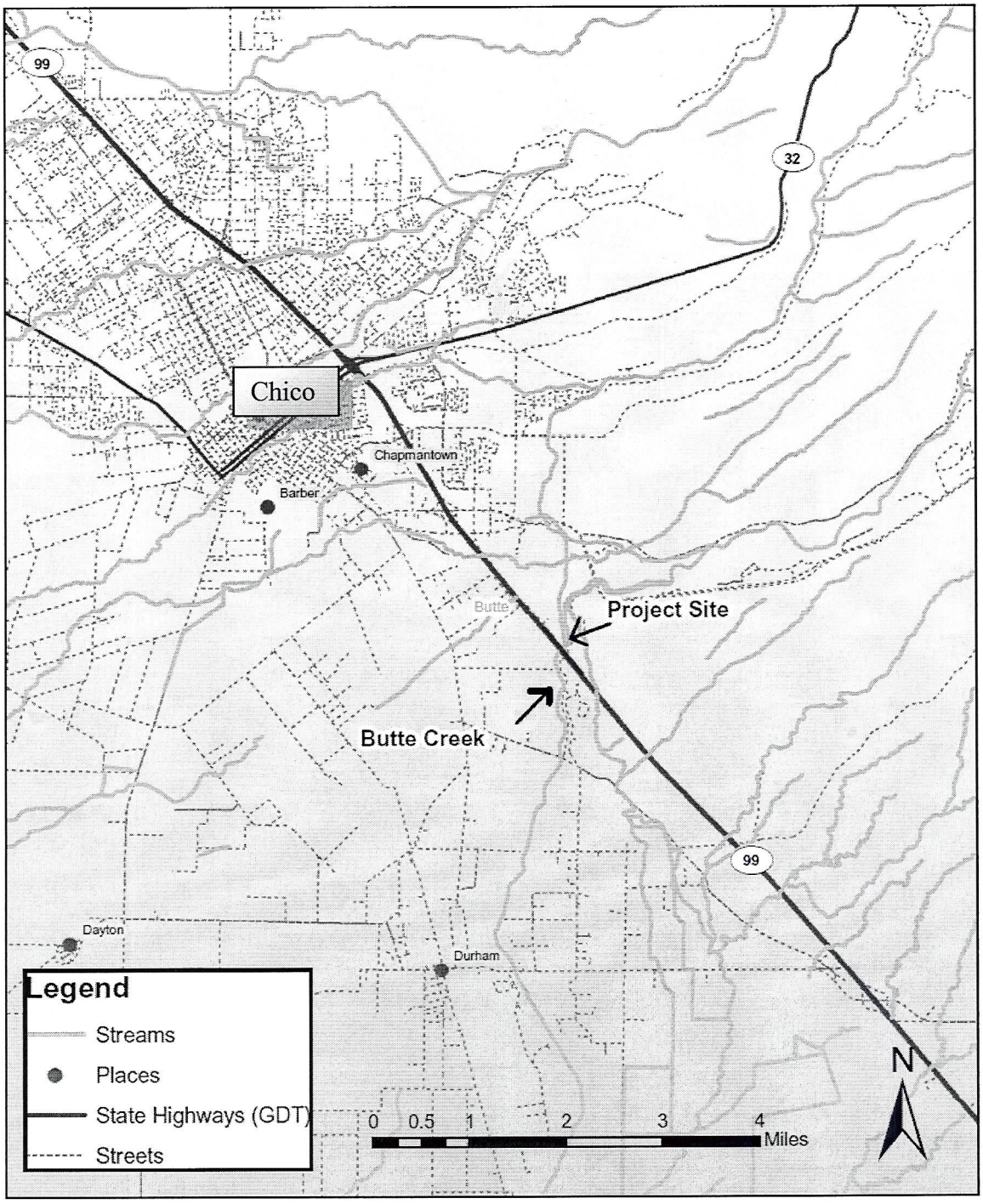

Figure 2. Project Location Map

MITIGATION PLANTING AREAS
REPLACE BR NO. 12-0126R
BUTTE CREEK BRIDGE
03-3E6201
Apr 2012

EXHIBIT A

Notice of Determination

Appendix D

To:

☒ Office of Planning and Research

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

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

☒ County Clerk

County of: Butte County Clerk - Recorders Office

Address: 25 County Center Drive, Suite 105, Oroville, CA 95965

From:

Public Agency: California Department of Transportation

Address: 703 B Street, Marysville, CA 95901

Contact: Kendall Schinke

Phone: (530) 741-4591

Lead Agency (if different from above):

Address:

Contact:

Phone:

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

State Clearinghouse Number (if submitted to State Clearinghouse): 2010032105

Project Title: Butte Creek Bridge

Project Location (include county): SR99 South of Chico in Butte County

Project Description:

The project proposes to replace the northbound Butte Creek Bridge with a new structure. The project is located in Butte County just south of the City of Chico on State Route 99 from post mile 28.1 to 29.6.

This is to advise that the California Department of Transportation has approved the above described project on

☒ Lead Agency or ☐ Responsible Agency

October 18, 2010 (Date) and has made the following determinations regarding the above described project:

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

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at: 703 B Street, Marysville CA 95901

Signature (Public Agency) Kendall Schinke Title

Date 10/21/10 Date Received for filing at OPR

RECEIVED
OCT 26 2010
STATE CLEARINGHOUSE

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

Revised 2005

NEPA/CEQA RE-VALIDATION FORM

DIST./CO./RTE.	03-BUT-99
PM/PM	28.1/29.6
E.A. or Fed-Aid Project No.	3E620
Other Project No. (specify)	
PROJECT TITLE	Butte Creek Bridge Replacement
ENVIRONMENTAL APPROVAL TYPE	IS/MND (CEQA) and CE (NEPA)
DATE APPROVED	MND approved 10/18/10; CE approved 10/25/10
REASON FOR CONSULTATION (23 CFR 771.129)	*Check reason for consultation:* ☐ *Project proceeding to next major federal approval* ☒ *Change in scope, setting, effects, mitigation measures, requirements* ☐ *3-year timeline (EIS only)* ☐ ***NA** (Re-Validation for CEQA only)*
DESCRIPTION OF CHANGED CONDITIONS	*Additional mitigation commitment added, along with a few minor project changes. Environmental Commitments Record (ECR) was updated on the same date of signatures below.*

NEPA CONCLUSION - VALIDITY

Based on an examination of the changed conditions and supporting information: [*Check ONE of the three statements below, regarding the validity of the original document/determination (23 CFR 771.129). If document is no longer valid, indicate whether additional public review is warranted and whether the type of environmental document will be elevated.]*

☐ **The original environmental document or CE remains valid. No further documentation will be prepared.**

☒ **The original environmental document or CE is in need of updating; further documentation has been prepared and ☒ is included on the continuation sheet(s) or ☐ is attached. With this additional documentation, the original ED or CE remains valid.**

Additional public review is warranted (23 CFR 771.111(h)(3)) Yes ☐ No ☒

☐ **The original document or CE is no longer valid.**

Additional public review is warranted (23 CFR 771.111(h)(3)) Yes ☐ No ☐

Supplemental environmental document is needed. Yes ☐ No ☐

New environmental document is needed. Yes ☐ No ☐ (If "Yes," specify type: _____)

CONCURRENCE WITH NEPA CONCLUSION

I concur with the NEPA conclusion above.

S Melvin — Signature: Environmental Branch Chief — 4-2-12 — Date

[signature] — Signature: Project Manager/DLAE — 4-2-12 — Date

CEQA CONCLUSION : *(Only mandated for projects on the State Highway System.)*

Based on an examination of the changed conditions and supporting information, the following conclusion has been reached regarding appropriate CEQA documentation: *(Check ONE of the five statements below, indicating whether any additional documentation will be prepared, and if so, what kind. If additional documentation is prepared, attach a copy of this signed form and any continuation sheets.)*

☐ **Original document remains valid. No further documentation is necessary.**

☒ **Only minor technical changes or additions to the previous document are necessary. An addendum has been or will be ☒ prepared and is ☒ included on the continuation sheets or ☐ will be attached. It need not be circulated for public review. *(CEQA Guidelines, §15164)***

☐ **Changes are substantial, but only minor additions or changes are necessary to make the previous document adequate. A Supplemental environmental document will be prepared, and it will be circulated for public review. *(CEQA Guidelines, §15163)***

☐ **Changes are substantial, and major revisions to the current document are necessary. A Subsequent environmental document will be prepared, and it will be circulated for public review. *(CEQA Guidelines, §15162)***
(Specify type of subsequent document, e.g., Subsequent FEIR:) _____

☐ **The CE is no longer valid. New CE is needed. Yes ☐ No ☐**

CONCURRENCE WITH CEQA CONCLUSION

I concur with the CEQA conclusion above.

S Melvin — Signature: Environmental Branch Chief — 4-2-12 — Date

[signature] — Signature: Project Manager — 4-2-12 — Date

Changes to environmental commitments since the environmental document was approved, e.g., the addition of new conditions in permits or approvals. When this applies, append a revised Environmental Commitments Record (ECR) as one of the Continuation Sheets.

1. The main purpose of this re-validation is to clarify gravel augmentation as a ***mitigation measure***, implemented by Caltrans as a condition to receiving permit, the California Department of Fish and Game (CDFG), Streambed Alteration Agreement, No. 1600-2011-0183. Caltrans has been working closely with the CDFG on this salmonid stream habitat restoration implementation work, which will be done concurrently with the bridge replacement project. In years past, near this location of Butte Creek, fall-run Chinook salmon have become stranded in low spots just downstream of the bridge as the water levels decrease. And each summer the CDFG has to implement rescue efforts to get the listed salmonids upstream beyond the diversion structure (which is located outside the project limits upstream). It is both CDFG and Caltrans' hope that the gravel augmentation work will result in improved spawning habitat for Chinook salmon, and allow the salmonids to travel upstream without getting trapped during low flows. ***The gravel augmentation is a mitigation commitment and shall be implemented into the project.*** The purpose and/or description of the gravel augmentation work is as follows:
   a. The purpose of this work is to augment gravel in Butte Creek within the vicinity of the SR 99 bridge structures in order to enhance salmonid spawning habitat. This gravel augmentation will ease migration upstream of Butte Creek by augmenting gravel immediately downstream from the SR 99 bridge structures, where there are low areas in the creek that trap fish as water levels lower during the late summer. The goal is to fill in the low areas with gravel, where salmon have been stranded in the past, and spread the around the area to create more spawning habitat.
   b. If the contractor chooses to use a gravel pad as a work platform for bridge removal and construction activities, then they will likely use that gravel for the augmentation process. The gravel pad will be part of a Temporary Creek Diversion System (TCDS). The TCDS will contain appropriately sized pipes to carry stream flow through the work pad. The pad dimensions will be developed by the contractor. However, it was estimated that the pad will be approximately 104 feet in width, and 105 feet in length, extending approximately 30 feet on either side of the northbound bridge to contain any bridge material that may fall during demolition or construction. The pad will contain approximately 1,350 cubic yards of clean gravel each year. At the finish of the first construction season, the augmentation gravel will be spread evenly into a 6-inch deep layer, up to a maximum width of 80-feet, approximately 615 feet upstream, and approximately 315 feet downstream. This process will be repeated in the following construction season for a total of 2,700 cubic yards of gravel in the creek with a depth of approximately 12-inches.
   c. According to the Final Hydraulic Report, from Caltrans Hydraulic staff dated July 2011, an inclusion of 12-inches of CDFG river-run gravel spread as described above will only increase the water surface elevation for a 100-yr flood, less than ½-inch and will have no adverse impact on the capacity of the Butte Creek Channel. This is a conservative depth estimate as the gravel should spread during winter flows and fill in low spots that currently trap salmonids, which currently hinder their migration each year.
   d. The equipment that will spread the gravel will be steam-cleaned to remove any oil/fuel residue and the equipment will not have any leaks. Spreading of the gravel can be accomplished using an excavator from the creek bank, or a large rubber-tired loader (probably preferred by most contractors).
   e. If the contractor, however, decides to use another form of work pad for bridge removal/construction, they must still implement the ***gravel augmentation mitigation commitment***. They may do this by bringing the gravel in from the local source and spreading it out according to the specifications of the mitigation commitment as determined by CDFG and Caltrans project staff. Or the contractor could obtain the

gravel from another source.

2. The second purpose of this revalidation is to update the project's information with the following type of work: The project plans to upgrade/replace some of the existing flashing beacon (FB) elements in the project. The existing advance flashing beacons are functionally obsolete. The FBs to the south of Estates Drive on NB SR 99 are within the original ESL limits. The FBs to the north of Entler Avenue on SB SR 99 were beyond the original ESL limits, requiring a revision to the ESLs. Both FB work locations are now located within the revised project limits. No additional minimization and/or avoidance measures apply towards the new flashing beacons.

Changes in environmental setting, e.g., new development affecting traffic or air quality;

Changes in environmental circumstances, e.g., a new law or regulation; change in the status of a listed species.

Changes to environmental impacts of the project, e.g., a new type of impact, or a change in the magnitude of an existing impact.

Changes to avoidance, minimization, and/or mitigation measures since the environmental document was approved.

Changes in project design, e.g., substantial scope change; a new alternative; change in project alignment