Hamilton Branch Bridge Replacement Project

PLUMAS COUNTY, CALIFORNIA
02-PLU-147-PM 8.9/9.3
E.A. 02-4E640/EFIS 0212000011

Draft Initial Study with Proposed Negative Declaration

Prepared by the
State of California, Department of Transportation
Caltrans District 2
1657 Riverside Drive, MS-30
Redding, CA 96001

June 2015

General Information About This Document

What's in this document?

This Draft Initial Study with proposed Negative Declaration (IS/ND) examines the potential environmental effects of a proposed transportation project on State Route 147, in Plumas County, near the town of Clear Creek. The purpose of this project is to provide a bridge across Hamilton Branch Creek that meets current design standards. The project proposes to replace the structure at Hamilton Branch Creek to include 12-foot wide traffic lanes, 8-foot wide shoulders, new bridge rail and guardrail, and widening of the existing roadway on each side of the bridge to conform to the new bridge. This IS/ND was prepared to comply with the California Environmental Quality Act (CEQA). It describes the purpose and need for the project, project description of work and potential effects from construction. A build or no build decision will not be made until after the full evaluation of environmental impacts and consideration of public comments.

What should you do?

- Please read this Initial Study
- You are invited to review the environmental document and technical studies. A printed copy of the document and technical studies can be found during business hours (Monday-Friday, 8:00 a.m. to 4:30 p.m.) at the Caltrans District Office located at 1657 Riverside Drive in Redding, or a printed copy of the document at the Chester Post Office (Monday-Friday, 8:30 a.m. to 4:00 p.m.), located at 218 Laurel Lane in Chester. A copy of the environmental document is also available on Caltrans' website at www.dot.ca.gov/dist3/departments/envinternet/envdoc.htm.
- We welcome your comments. If you have any information or concerns regarding the project, please send your written comments to Caltrans by the deadline. Submit comments via regular mail to:

  California Department of Transportation
  Attention: Christopher Quiney
  North Region Office of Environmental Mgmt., MS-30
  1657 Riverside Drive
  Redding, CA 96001

- You may also submit comments via e-mail to Chris.Quiney@dot.ca.gov
- Submit comments by the deadline: July 2, 2015.

What happens after this?

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

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Chris Quiney, North Region Environmental Management, 1657 Riverside Drive, Redding, CA 96001; (530) 225-3174 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

Hamilton Branch Bridge Replacement Project

In Plumas County, California on State Route 147
Post Mile 8.9/9.3, near the town of Clear Creek

INITIAL STUDY
WITH PROPOSED NEGATIVE DECLARATION

Submitted Pursuant to: Division13, California Public Resources Code

STATE OF CALIFORNIA
Department of Transportation

5-28-15
Date of Approval

Amber Kelley
Office Chief - Redding
North Region Environmental Services
California Department of Transportation

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

SCH No.
02-PLU-147-PM 8.9/9.3-02-4E640

Proposed Negative Declaration

Pursuant to: Division 13, California Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to replace the Hamilton Branch Bridge (Bridge No. 09-0065), on State Route 147 in Plumas County near the community of Clear Creek. The bridge was constructed in 1948 and has several deficiencies including, non-standard seismic capacity, non-standard width, non-standard bridge rail, and deterioration (chloride contamination) in the Portland cement concrete deck. The new bridge would be a cast-in-place post-tensioned reinforced concrete structure with cast-in-drilled-hole piles at the piers and spread footings at the abutments. The new bridge would be a three span structure, 352-feet in length with two piers. The bridge would have two 12-foot wide traffic lanes and two 8-foot wide shoulders, with a total width of 40-feet. The new bridge would be the same height as the existing bridge and on the same alignment. The roadway at both ends of the bridge would be reconstructed and widened to match the width of the new bridge. Other work associated with the bridge replacement would include removal of the existing bridge, vegetation removal, earthwork, and paving. Work would also include overhead utility relocation, installation of temporary work trestles, access roads, new bridge rail, guardrail, and signs. The project would require approximately two years to complete and would require a traffic detour utilizing County Road A21 for a portion of the construction period.

Determination

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

The proposed project would have no effect on agriculture and forest resources, air quality, cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems.

The project would have a less than significant effect on aesthetics, biological resources, hazardous materials or hazardous waste, transportation or traffic, and noise.

_____ _____

Amber Kelley
Office Chief - Redding
North Region Environmental Services
California Department of Transportation

Date

Proposed Project

Project Title
Hamilton Branch Bridge Replacement

Lead Agency Name and Address
California Department of Transportation
North Region Office of Environmental Mgmt. MS-30
District 2
1657 Riverside Drive
Redding, CA 96001

Contact Person and Phone Number
Christopher Quiney
Environmental Branch Chief – R1
(530) 225-3174

Project Location
The proposed project is located on State Route 147 in Plumas County, near the town of Clear Creek, at post mile (PM) 8.9/9.3 (Figures 1 and 2)

Project Sponsor's Name and Address
California Department of Transportation
District 2
North Region Office of Environmental Mgmt., MS-30
1657 Riverside Drive
Redding, CA 96001

Purpose and Need
The purpose of this project is to provide a bridge across Hamilton Branch Creek that meets current design standards. The existing steel girder bridge (Figure 3) [Bridge No. 09-0065] was constructed in 1948 and has several deficiencies including non-standard seismic capacity, non-standard width, non-standard bridge rail, and deterioration (chloride contamination) in the Portland cement concrete deck.

Project Description
The California Department of Transportation (Caltrans) proposes to remove the existing Hamilton Branch Bridge and construct a new bridge on the same alignment as the existing bridge. This project would be funded from the 2012 State Highway Operation Protection Program (SHOPP). The new bridge (Figure 4) would be a cast-in-place (CIP) post tensioned (PT) reinforced concrete structure with cast-in-drilled-hole (CIDH) piles at the piers and spread

footings at the abutments. These foundations, including abutments and piers, would be located above the ordinary-high-water mark (OHWM) of Hamilton Branch Creek. The new bridge would be a single 352-foot-long three span structure with two piers. The new bridge would have two 12-foot-wide traffic lanes and two 8-foot-wide shoulders for a total width of 40-feet.

Table 1. Bridge Dimensions

	Existing	New	Change
Height	54-ft	54-ft	0-ft
Length	332-ft	352-ft	20-ft
Width	26.5-ft	40-ft	13.5-ft

The roadway at both ends of the bridge would be reconstructed and widened (approximately 525 feet on the south end and approximately 1,240 feet on the north end) to match the width of the new bridge. Roadway widening would require earthwork consisting of pulverizing (recycling) the existing asphalt concrete surfacing and excavating the roadbed approximately 1.5-feet. Other work associated with the bridge replacement would include installing new bridge rail and guardrail, new traffic striping and signage, and relocating overhead utilities. Temporary easements would be necessary for utility relocations, construction staging and temporary access roads. Any excess material generated as a result of the proposed project, including dirt, rock, asphalt grindings, Portland cement concrete, rebar, and structural steel, will be taken off site by the contractor and disposed or recycled at an appropriate facility.

Typical construction equipment expected to be used at the site would include excavators, loaders, graders, cranes, trucks, pavers, rollers, hoe-rams, pile drivers, compressors, cutting implements and torches.

Temporary work trestles, access roads, staging areas, and vegetation removal would be required for construction and demolition operations. Prior to the beginning of any work, temporary environmentally sensitive area (ESA) fencing would be installed. This fencing would prevent the contractor's employees and equipment from encroaching unnecessarily into adjacent vegetation along the creek, and a nearby ephemeral drainage. Once the ESA fencing is installed, vegetation would be cleared and grubbed to the extent necessary for construction. Approximately 183 mixed conifer trees would be removed. The majority of tree removal would occur along the highway or adjacent to the existing bridge. The trees to be removed range from approximately 6 to 36 inches in diameter at breast height (dbh). The average dbh of trees to be removed is approximately 15 inches. A total of approximately 0.19 acre of riparian vegetation would be permanently impacted to accommodate a temporary access road, installation of work trestles, and construction activities at the foundations of the existing and proposed bridges. While vegetation removal would occur between August and March (outside of the migratory bird nesting season),

other construction activities may be conducted between February and December providing weather conditions are appropriate.

Temporary construction access roads would be constructed at the northeast and southwest quadrants of the existing bridge. These temporary access roads are located on old roadbed locations. The roads would be graded and covered with base rock to provide a stable surface for construction equipment. The access roads would have an average width of approximately 25 feet. It is anticipated that two temporary work trestles would be required to facilitate construction and demolition operations. The trestles would consist of vertical steel piles and timber cross members. One would be constructed parallel to and adjacent with the existing bridge. Another may be necessary to support the existing bridge during demolition and provide a catchment platform for falling debris. The steel vertical members would be driven into the earth with a pile driver. The trestles would span the creek above the ordinary high water mark of the channel, and would be removed entirely following construction. No in-water work would take place during the construction of the bridge and there would be no impact to federal or state waters, with the exception of the minor encroachment within the OHWM of a small ephemeral stream. Diesel impact or hydraulic vibratory hammers would likely be used to set the piles in place. Diesel pile drivers would be used from August to March.

Pier foundations would consist of CIDH piles with permanent steel casings. Each of the two bridge piers would be composed of two footings with four 36-inch diameter CIDH piles in each footing. Each pier consists of two 15-foot by 15-foot-square footings with a 5-foot- diameter column on top of each. The total footprint of the footing is 34.5 feet by 15 feet. The depth of excavation needed to install the piers would be approximately 10 feet. Excavation would require driven sheet piles to be used as cofferdams to protect the adjacent stream and permeability of the ground. If groundwater is encountered during excavation, the groundwater would need to be dewatered by pumping water either to a portable tank, truck, or an adjacent upland area (infiltration basin). Surface water would not be returned to Hamilton Branch Creek. Rebar would be attached and placed around the footing. When finished, existing ground material and/or rock-slope-protection (RSP) would then be placed over and around the footings.

The bridge abutment foundations would consist of reinforced concrete spread footings composed of Portland cement concrete and bar reinforcing steel. The bottom of the footings must be founded on rock or densely compacted soil. Excavation to a depth of at least 20 feet would be required for the construction of the abutments. Abutment 1 (south abutment) would be 16 feet by 14 feet, with a 23-foot by 1-foot cantilever wingwall. Abutment 4 (north abutment) would be the same design as abutment 1. The wingwall footings would be aligned on the outside edge of the abutment footing.

The project would take approximately 2 years to complete. During the first year for a period from approximately April 1 to September 30, while the existing bridge was being demolished and the new bridge was being constructed, traffic would be detoured onto County Road A21 (A21) and State Route 36 (SR36). Traffic volumes on A21 and a 6 mile stretch of SR36 would increase approximately 40% on average during the detour period. Caltrans has entered into a formal agreement with Plumas County for use of the road as a detour route during construction. An agreed upon amount would be provided to Plumas County to compensate for the temporary use and make any needed repairs to the County road.

Project Alternatives

Two project alternatives, including a "no-build" alternative, were developed as potential solutions to address the purpose and need for the project. Alternative 1 (proposed bridge replacement) is the preferred alternative as it meets the project purpose and need.

Alternative 2 (no-build) does not meet the purpose and need of this project. Numerous smaller projects and on-going maintenance would be required to maintain the existing structure. This strategy would result in a higher cost to the taxpayer, greater and prolonged environmental disturbance, while only temporarily delaying replacement of the aging structure.

Permits and Approvals

California Department of Fish and Wildlife (CDFW) jurisdictional limits are usually defined by the tops of stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. A Stream Bed Alteration Agreement would be required from the CDFW pursuant to Section 1602 of the California Fish and Game Code for stream bank modifications and removal of riparian vegetation. Encroachment within the OHWM of an ephemeral stream will require a Nationwide Permit from the U.S, Army Corps of Engineers and Section 401 Water Quality Certification from the Regional Water Quality Control Board.

The contractor would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the National Pollutant Discharge Elimination System (NPDES). The SWPPP will include appropriate Best Management Practices (BMPs) to address potential water quality issues related to construction activities.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

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

DETERMINATION:

On the basis of this initial evaluation:

☒	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☐	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature: Amber Kelley	**Date:** 5-28-15
Printed Name: Amber Kelley	

CEQA Environmental Checklist

02-PLU-147	8.9/9.3	4E640
Dist.-Co.-Rte.	P.M/P.M.	E.A.

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
VI. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

VII. GREENHOUSE GAS EMISSIONS: Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

X. LAND USE AND PLANNING: Would the project:

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

XI. MINERAL RESOURCES: Would the project:

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

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Discussion of Environmental Impacts

Expanded discussion is included for checklist questions answered "Less than Significant Impact". Clarifying discussion *may* be included for checklist questions answered "No Impact".

Aesthetics

Caltrans' North Region Office of Landscape Architecture has conducted an evaluation of the proposed project, including proposed vegetation removal, and has determined that there would be no adverse impacts to the visual quality of the bridge setting or to scenic resources.

Biological Resources

Osprey

There is an established osprey nest located near the southeast quadrant of the project study limits within a broken top ponderosa pine, at a height of approximately 90-feet. The nest tree is outside of the project limits, and is located approximately 228-feet from the existing bridge (Figure 5). The nest is visually screened by the density of the branches and surrounding trees. The nest is visible from the east side of the northern bridge abutment on the fill slope adjacent to the guardrail. The nest is not visible from the southern two-thirds portion of the bridge.

Unlike osprey in remote forested areas, localized species have acclimated to the railroad activity, highway traffic, recreational fisherman, and timber harvest activities. The Burlington Northern Santa Fe Railroad runs parallel to the highway at a distance of approximately 0.10 mile to the east. The osprey nest tree is located centrally between the highway and the railway, approximately 228-feet from the highway and 336-feet from the rail line (Figure 5). The Collins Pine Railroad is perpendicular to the highway at a distance of approximately 0.35 miles from the bridge. Ten percent of the average daily traffic on this route is semi-trucks, as SR 147 is used as a short-cut for goods movement between SR 89 and SR 36. In addition, the local timber operations and mill generate a large number of lumber/logging trucks.

During project surveys, a total of six osprey nests were observed in the general vicinity of the proposed project. All osprey nests observed during biological surveys were located in residential backyards and/or adjacent to SR 147. These ospreys are exposed to traffic and recreational activities and do not appear to be affected by human activity, including vehicle traffic. Additional osprey territories are located along the 52 miles of shoreline of Lake Almanor. Of these 52 miles of shoreline, several miles of the southeast shore, a small part of the west shore, and the encircling northern arm of the lake are forested lands. These lands are managed by Lassen and Plumas National Forest (NF). These U.S. Forest Service (USFS) lands are primarily undeveloped and provide the highest habitat values for nesting and foraging use. Ospreys have been observed using manmade structures such as electrical poles for nesting along the shoreline of Lake Almanor. One particular nest is located at the PG&E rest area near the Lake Almanor

Spillway. A few miles north of the proposed project site is the Mountain Meadows Reservoir with 24 miles of shoreline. In addition to its abundant open space, large areas of the surrounding undeveloped timber lands provide substantial nesting and foraging habitats. Numerous osprey nests have been found on the west shore of the Mountain Meadows Reservoir, which is located several miles upstream of the Hamilton Branch Bridge. Based on this information, existing habitat within the vicinity of the proposed project is abundant and supports a healthy population of osprey.

The main nesting period for osprey is approximately March through August. Much of the construction generated noise and vibration associated with the proposed bridge replacement project will be equal to, or lower than, ambient noise levels and would be temporary. Percussive pile driving would be the loudest of construction noise levels. It is anticipated that percussive diesel hammers would be used from August to March, but vibratory drivers and hoe-rams may operate within the nesting period. The use of pile drivers to install temporary trestle piles would be intermittent and short-term in duration. It is estimated that pile drivers would require less than 45 days at 8 hours a day to complete the entire project. Hoe-rams, which would be used for demolition of the existing bridge and possibly breaking up bedrock and boulders, would occur for less than 12 hours a day for a maximum period of approximately 30 days. The project includes installation of temporary ESA fencing to prevent encroachment of construction personnel and equipment in the vicinity of the nest tree. A portion of the ESA fencing will be installed at approximately 186-feet from the nest tree. This would provide a buffer of approximately 161-feet between the nest tree and any pile driver or other percussive equipment capable of generating the highest levels of noise and vibration. The contractor will be required to hire a qualified biologist to monitor the nesting osprey during percussive pile driving and demolition operations utilizing percussive equipment.

Biological surveys, numerous historical accounts noted in California Natural Diversity Data Base (CNDDB), along with the abundance of high quality nesting and foraging habitats in the Lake Almanor Basin indicate that the local and regional osprey population is healthy and unaffected by the ongoing routine man-made disturbances that occur in the area. It has been determined that the project will have; no adverse impact on osprey habitat or the local and regional osprey population, and a less than significant impact on the osprey nest located near the project boundaries.

Riparian

The stream bank corridor on Hamilton Branch Creek is densely populated with boulders, and very little exposed soil. Most of the herbaceous vegetation is acclimated to the dry, rocky conditions and grows upon or within the interstices of the boulders. There is little overhanging

riparian vegetation along the creek within the Environmental Study Limits (ESL) or directly upstream. Low growing willows and other shrubby riparian vegetation provide shade directly along the stream banks downstream of the ESL. The riparian corridor within the ESL is considered to be of low value based on the lack of effective canopy shade over the channel and the minimal cooling effects to water temperatures. The non-contiguous riparian habitat within the ESL does not provide the density and consistency required for a substantial habitat corridor.

A total of approximately 0.19 acres of riparian vegetation will be impacted by the project (Figure 6). Impacts will be a result of clearing to allow access to construct a temporary work trestle, false work, and temporary access roads. The riparian impacts are anticipated to be temporary as the work at this location involves clearing with no grubbing, which will leave the root systems intact and the potential for re-growth high. However, for the purposes of the impact analysis in this document, the riparian impacts are assumed to be permanent.

The estimated total area of riparian vegetation existing on Hamilton Branch Creek is approximately 19.7 acres. This is based on the estimated average width (32.5 ft) of the riparian corridor within the ESL and the approximate length of Hamilton Branch Creek. The creek is approximately 5.8 miles long from Mountain Meadows Reservoir to the east shore of Lake Almanor. A 1997 California Department of Water Resources survey identified approximately 21,000 acres of native riparian vegetation in Plumas County. Table 2 summarizes the total amount of riparian vegetation by area, and the project impact to riparian by area.

Table 2. Riparian Vegetation

	Total Amount of Riparian Vegetation by Area	Total Project Impact to Riparian Vegetation (permanent)	Project Impact to Riparian Vegetation by Area (%)
Riparian vegetation within Hamilton Branch Creek	19.7 acres	0.19 acres	0.91%
Riparian Vegetation within Plumas County	20,837 acres	0.19 acres	0.000008%
Riparian Vegetation within ESL	.47 acres	0.19 acres	40%

The amount of riparian vegetation impact resulting from the proposed project is minimal, as it impacts less than 1% of the total riparian vegetation within the reach of Hamilton Branch Creek and only a fraction of the total riparian vegetation within the County. Impacts from the proposed project will not have a substantial adverse effect, either directly or indirectly, on the riparian habitat community at either a local or regional level; and have been determined to be less than significant.

An additional 0.006 acre of potential riparian area will be gained within the ESL as a result of removing the existing bridge piers, which are closer to the creek than the proposed. This will be a beneficial gain as the pier removal will open up an area of stream bank for potential riparian growth and reduce riparian habitat fragmentation.

While the project impacts to riparian vegetation have been determined to be less than significant, it is Caltrans standard practice to replace vegetation where feasible. As part of the Section 1600 process, Caltrans has provided the California Department of Fish and Wildlife with a Re-Vegetation and Monitoring Plan for this location. Approximately 14-16 months after post-construction activities are completed, the disturbed riparian areas will be surveyed and any areas devoid of riparian vegetation will be replanted with local native riparian species. Caltrans will monitor the vegetation at this location and replant as needed for a period of three years.

Conifer/Mixed Conifer

Trees within the project limits are conifer species including ponderosa pine, lodgepole pine, white fir, Douglas fir, sugar pine, and incense cedar. The project area is zoned for timber production and the land adjacent to the Hamilton Branch Bridge is owned by private timber companies. The project will require the removal of approximately 183 trees averaging 15-inches in diameter. Tree removal is necessary to accommodate aerial utility relocations, construction of temporary access roads, and staging areas. The 183 trees represent only a portion of the trees within the project limits, and are located nearest to the highway and the bridge both on private timber lands as well as within Caltrans right of way, and will not be considered a significant impact.

Within the surrounding region, mixed conifer forest is abundant and the 2012 Plumas County General Plan EIR update indicates that approximately 72% of Plumas County comprises conifer/mixed conifer forest habitat. The 1997 California Department of Water Resources survey states that there are one and a half million acres of native vegetation in Plumas County. Given the local habitat levels, regional habitat levels, and current forestry practices, the project will have no adverse impact on conifer habitat, nor will it have an adverse impact aesthetically.

While there is no impact to conifer forest or aesthetics, it is Caltrans standard practice to replace vegetation where feasible. Following construction, conifers will be planted in appropriate areas where they will not interfere with highway operations, i.e., trees will not be planted within 20-feet of the pavement or where they will interfere with bridge maintenance and driver sight distance.

Cultural Resources

An Environmentally Sensitive Area (ESA) has been established and shall consist of an area within and near the limits of construction where access is prohibited for the preservation of archaeological resources as shown on the plans. The Caltrans Archaeologist, in consultation with the Office of Geotechnical Design - North (OGD-N), will determine the exact location of the boundaries of the ESA. No work shall be conducted within the ESA, and no impact is anticipated as a result of the proposed project.

Hazardous Waste

Caltrans' North Region Office of Environmental Engineering has prepared an Initial Site Assessment (ISA) to identify potential hazardous waste issues relative to the proposed project. The ISA indicates three minor hazardous waste issues: thermoplastic and/or paint striping that may include lead, aerially deposited lead in soils, and treated wood waste from signs and metal beam guardrail posts. The construction contract will include standard special provisions to address the handling and disposal of these materials. Additionally, prior to bridge demolition, surveys will be performed on the existing bridge for potential lead based paint and asbestos. The Environmental Protection Agency's (EPA) National Emissions Standards for Hazardous Air Pollutants (NESHAP) and the California Air Resources board (CARB) rules require the contractor to notify the CARB in writing prior to the demolition or renovation of any bridge regardless of whether or not asbestos is present. The contractor will be required to comply with any conditions imposed by the CARB. Appropriate special provisions would be included in the construction contract to address the handling and disposal of lead paint, including the need for a lead compliance plan.

Noise

Construction activities will result in temporary, intermittent increases in noise and vibration at the project site. Typical construction equipment for this type of project will generate noise levels in the range of 60 to 100 decibels, with spikes above 100 decibels for percussive pile drivers. Table 3 provides sound levels for equipment and activities that are common within the project area.

While there will be some temporary and periodic spikes in noise, the noise and vibration levels associated with the bridge construction are consistent with common noise levels in the project area. There are no inhabited structures within 0.5 mile of the project site with the exception of the Collins Pine loading spur out building. It has been determined that the noise levels would not have an adverse impact on sensitive resources and would be less than significant.

Table 3. Sound Levels for Local Equipment and Activities

Type of Noise	Reported Decibel Value dBA	Sound Level dBA (at a distance of 50-ft)
Columbia double rotor logging helicopter (reading from road)	84 @ 400 m	113
Jake brake on Truck	110 @ 8 ft	94
Log loader	63 @ 200 m	85
Logging truck	97	97
Off-Road Motorcycle	100	100
Railroad	98	98
Train	90 @ 20 ft	82
Train Horn	110*	110*
Truck Horn	120 @ 8 ft	104
Dozer	88	88
Highway Traffic (downhill, discontinuous traffic, wet)	70 @ 200m	92

Source: 9April2014_Caltrans and ACOE Routine Maintenance Programmatic Letter of Concurrence
*U.S. Department of Transportation Federal Railroad Administration

Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to

electricity generation) of GHG emitting sources. The dominant GHG emitted is CO_2, mostly from fossil fuel combustion.

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

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly Bills and Executive Orders, California launched an innovative and pro-active approach to dealing with GHG emissions and climate change. Relevant legislation includes the following policies:

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

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making process–from planning through project development and delivery. Despite the lack of Federal

GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

Project Analysis

The proposed project is not a capacity increasing project, so it is not anticipated to have any increase in operational GHG emissions as a result.

An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.[1]

The Department 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, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.[2]

Construction Emissions

Greenhouse gas 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.

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

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

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

CEQA Conclusion

Although construction emissions are unavoidable, they are anticipated to be minimal and will not significantly contribute to GHG emissions within the local area and region. The proposed project will not increase capacity and is not expected to result in additional operational CO_2 emissions. However, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Climate Change Mitigation Strategies

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)[3].

Greenhouse Gas Mitigation

AB 32 Compliance

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

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

1. According to the Department's Standard Specifications, the contractor must comply with all of the local Air Pollution Control District's (APCD) rules, ordinances, and regulations regarding to air quality restrictions.

[3] http://climatechange.transportation.org/ghg_mitigation/

2. Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.

Adaptation Strategies

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

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

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

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

Transportation/Traffic

The project will take approximately 2 years to complete. During the first year for a period from approximately April 1 to September 30, while the existing bridge is demolished and the new bridge is constructed, traffic would be detoured onto A21 and SR36. Traffic volumes on A21 and a 6 mile stretch of SR36 would increase approximately 40% on average during the detour

period. Caltrans has entered into a formal agreement with Plumas County for use of the road as a detour route during construction. An agreed upon amount would be provided to Plumas County to compensate for the temporary use and make any needed repairs to the County road.

Mandatory Findings of Significance

a) It has been determined that the project would not result in adverse effects and does not have the potential to degrade the quality of the environment.

b) The proposed project would not result in any adverse effects that, when considered in connection with other projects, would be considered cumulatively considerable.

c) Based on the description of the proposed project and consideration of potential effects, there is no evidence to support a finding that the project would have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

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List of Preparers

This Initial Study was prepared by the California Department of Transportation, North Region Office of Environmental Management, with input from the following staff:

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Mark Melani, Hazardous Waste Coordinator
Contribution: Initial Site Assessment for hazardous waste

Blossom Hamusek, Project Archaeologist
Contribution: Cultural resource surveys and compliance

Chelsea Tran-Wong, Project Biologist
Contribution: Biological review

Chris Quiney, Environmental Branch Chief
Contribution: Document preparation oversight

Steve Topal, Design Senior
Contribution: Project design

Cabe Cornelius, Environmental Coordinator
Contribution: Document writer

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Contribution: Project design

Byron Stanley, Project Engineer
Contribution: Project design

Vijitakula Pibulporn, Structures Engineer
Contribution: Structures Design

Tony English, Structures Engineer
Contribution: Structures design

Robin Solari, Landscape Architect
Contribution: Visual Impact Assessment

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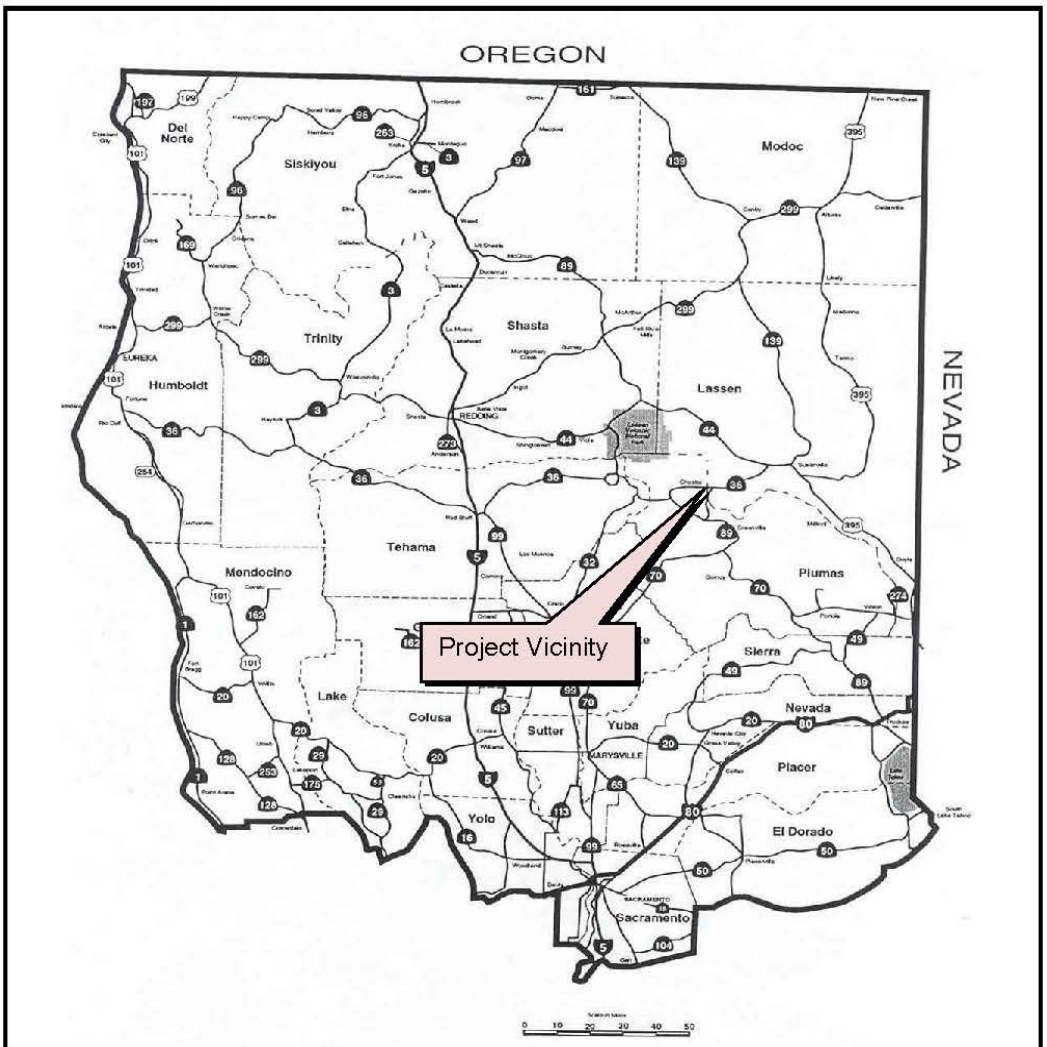


Figure 1 Project Vicinity Map

Caltrans	State of California Department of Transportation	Hamilton Branch Creek Bridge Replacement Project
	PLU-147-PM 8.98 02-4E640	

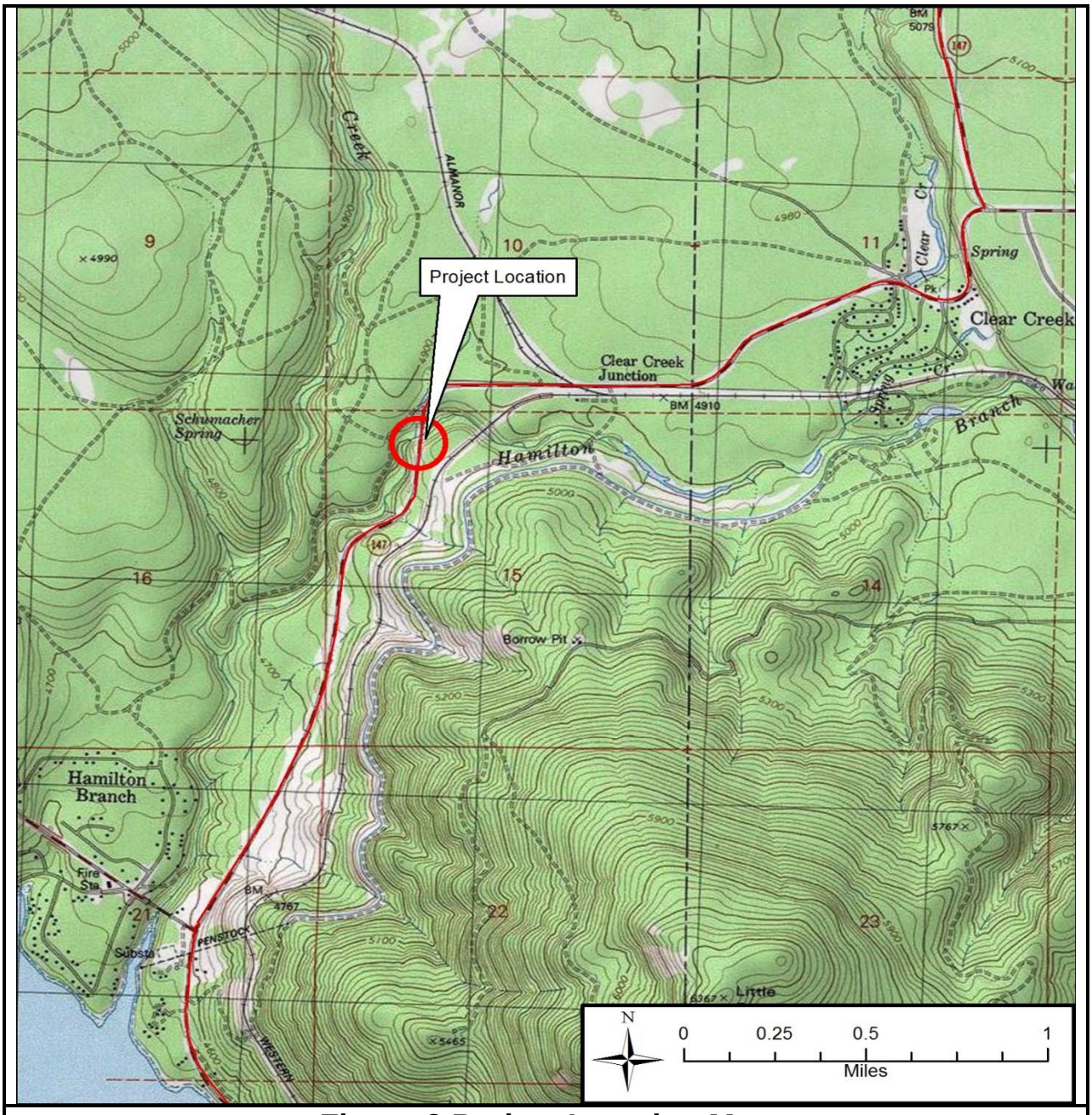


Figure 2 Project Location Map

Caltrans	State of California Department of Transportation	Hamilton Branch Bridge Replacement Project
	PLU-147-PM 8.9/9.3 02-4E640	

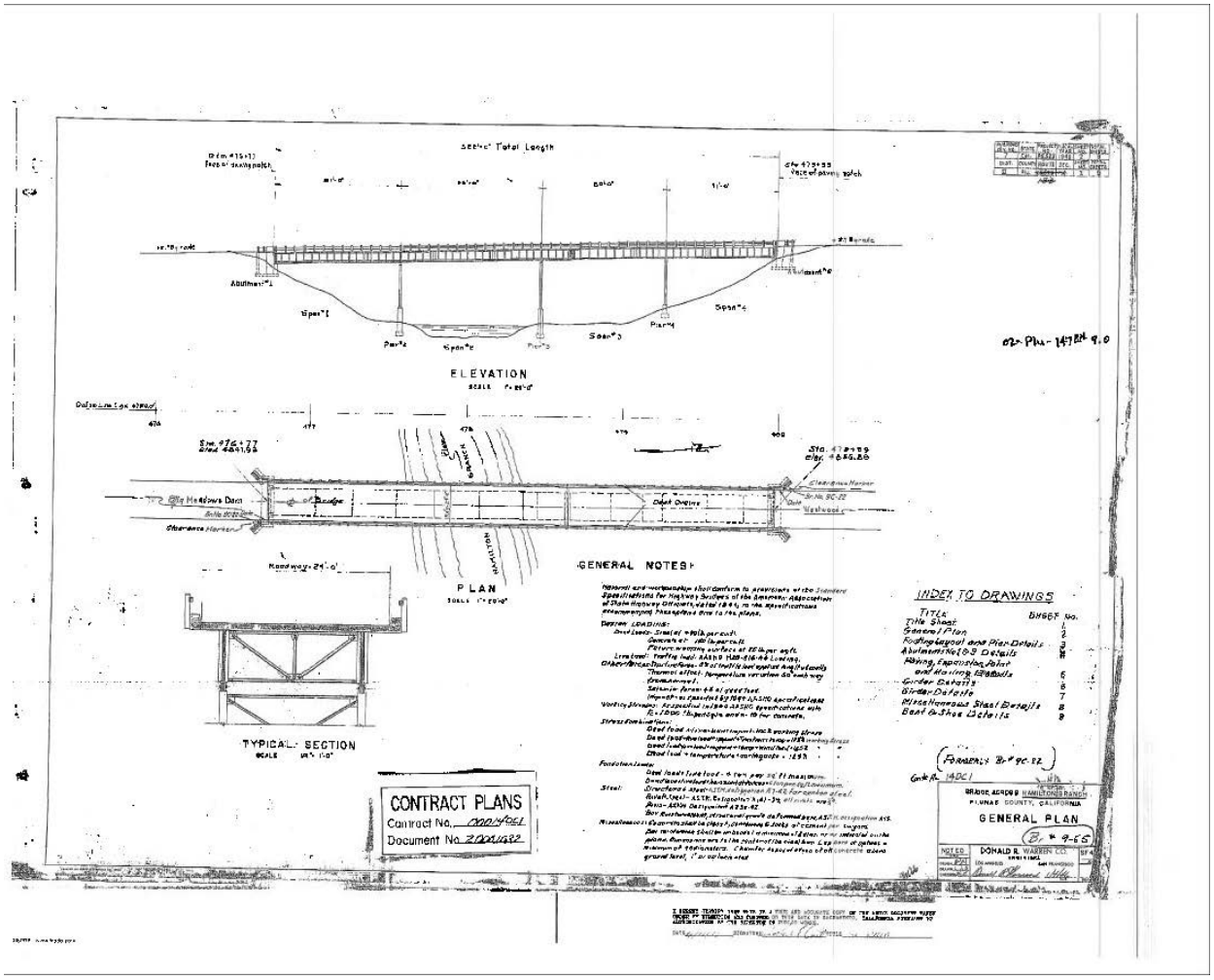


Figure 3 General Plan Existing Bridge

Caltrans	State of California Department of Transportation	Hamilton Branch Bridge Replacement Project
	PLU-147-PM 8.9/9.3 02-4E640	

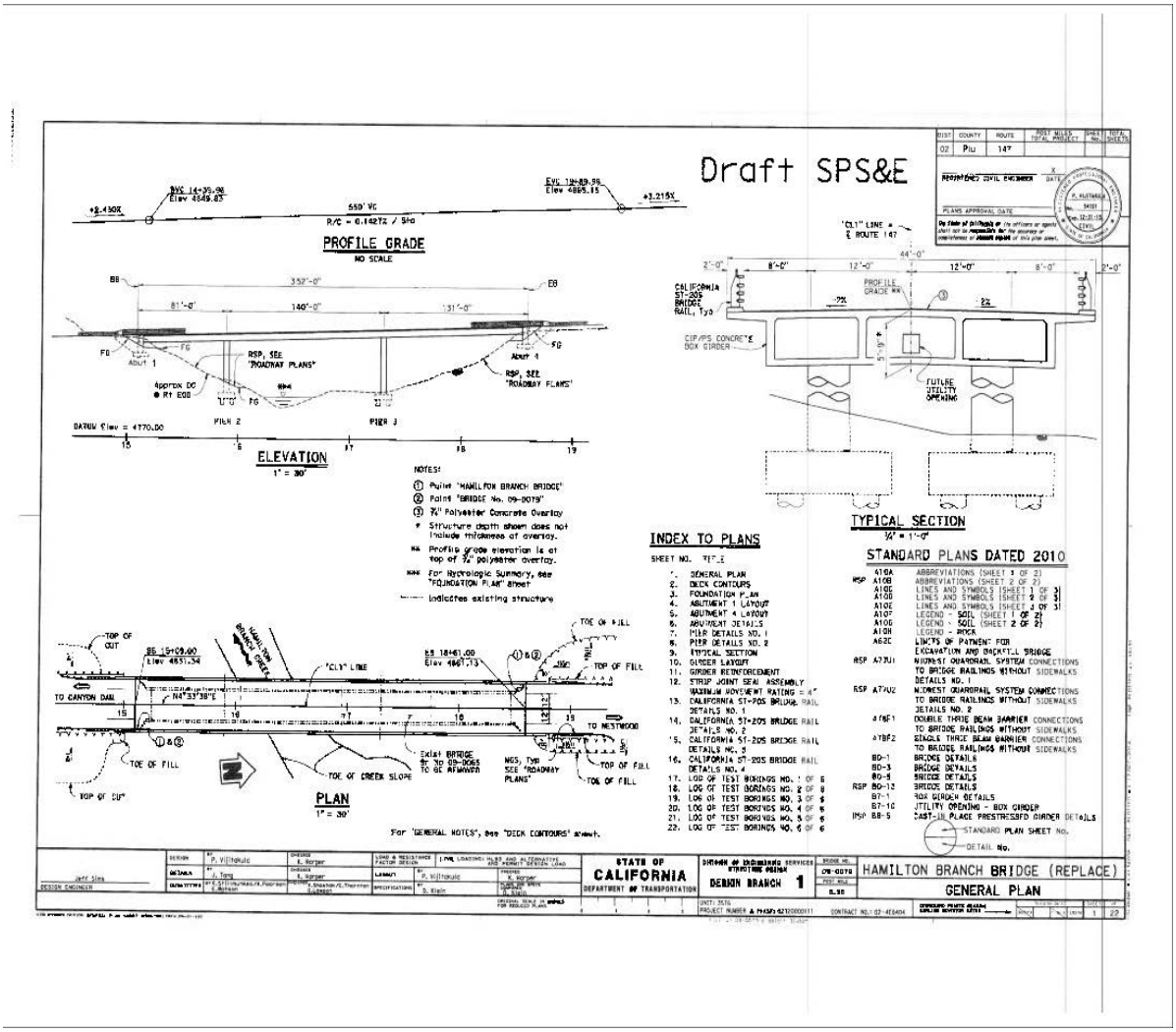
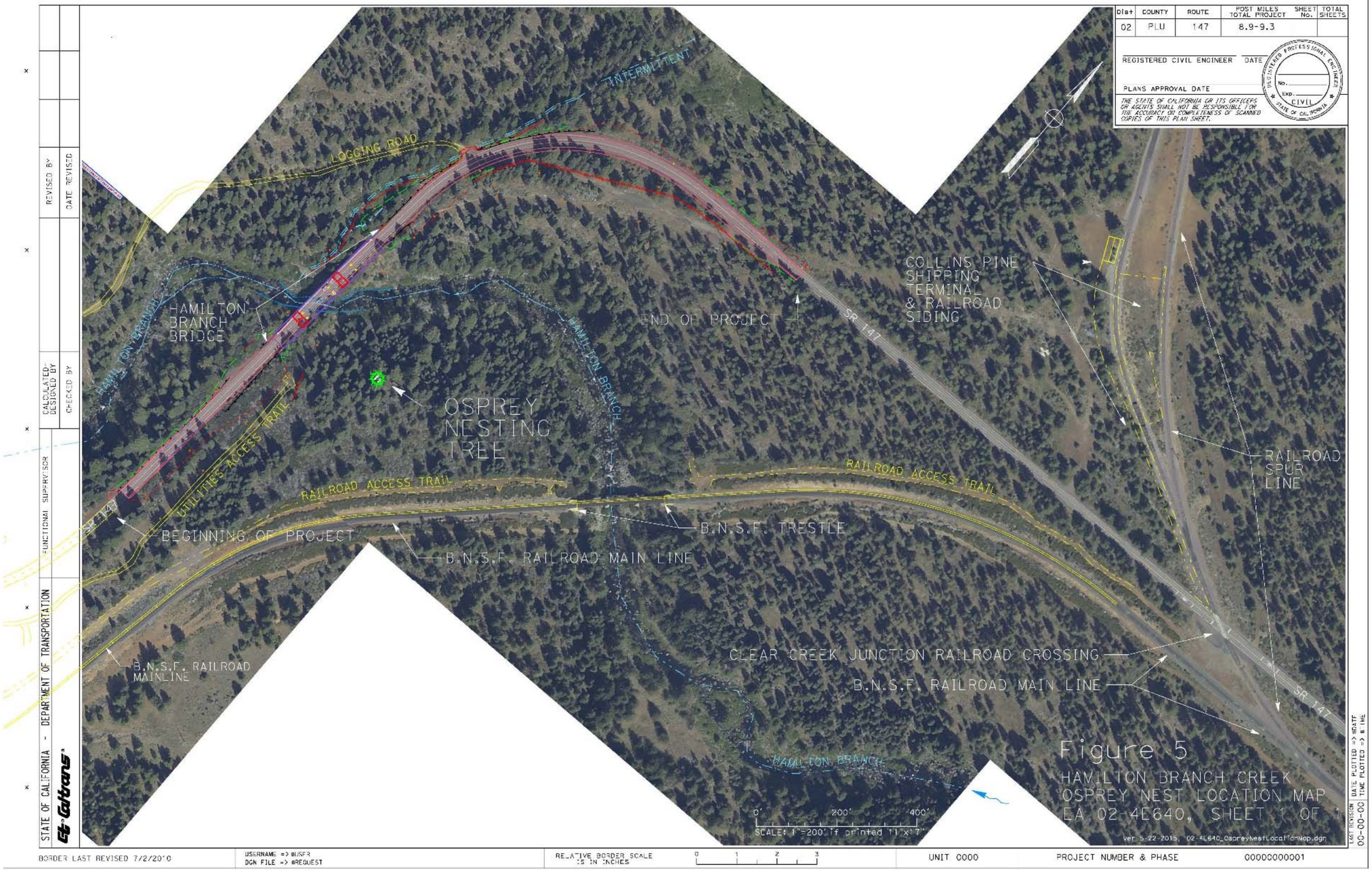


Figure 4 General Plan Proposed Bridge

Caltrans	State of California Department of Transportation	Hamilton Branch Bridge Replacement Project
	PLU-147-PM 8.9/9.3 02-4E640	


INTERMITTENT
LOGGING ROAD
HAMILTON BRANCH BRIDGE
HAMILTON BRANCH
END OF PROJECT
SR 147
COLLINS PINE SHIPPING TERMINAL & RAILROAD SIDING
OSPREY NESTING TREE
UTILITIES ACCESS TRAIL
RAILROAD ACCESS TRAIL
BEGINNING OF PROJECT
B.N.S.F. RAILROAD MAIN LINE
B.N.S.F. TRESTLE
RAILROAD SPUR LINE
B.N.S.F. RAILROAD MAINLINE
CLEAR CREEK JUNCTION RAILROAD CROSSING
B.N.S.F. RAILROAD MAIN LINE
HAMILTON BRANCH
0' 200' 400'
SCALE: 1"=200' if printed 11"x17"
Ver 5-22-2015, 02-4E640_OspreyNestLocationMap.dgn
Figure 5
HAMILTON BRANCH CREEK
OSPREY NEST LOCATION MAP
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COUNTY
PLU
ROUTE
147
POST MILES TOTAL PROJECT
8.9-9.3
SHEET No.
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DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
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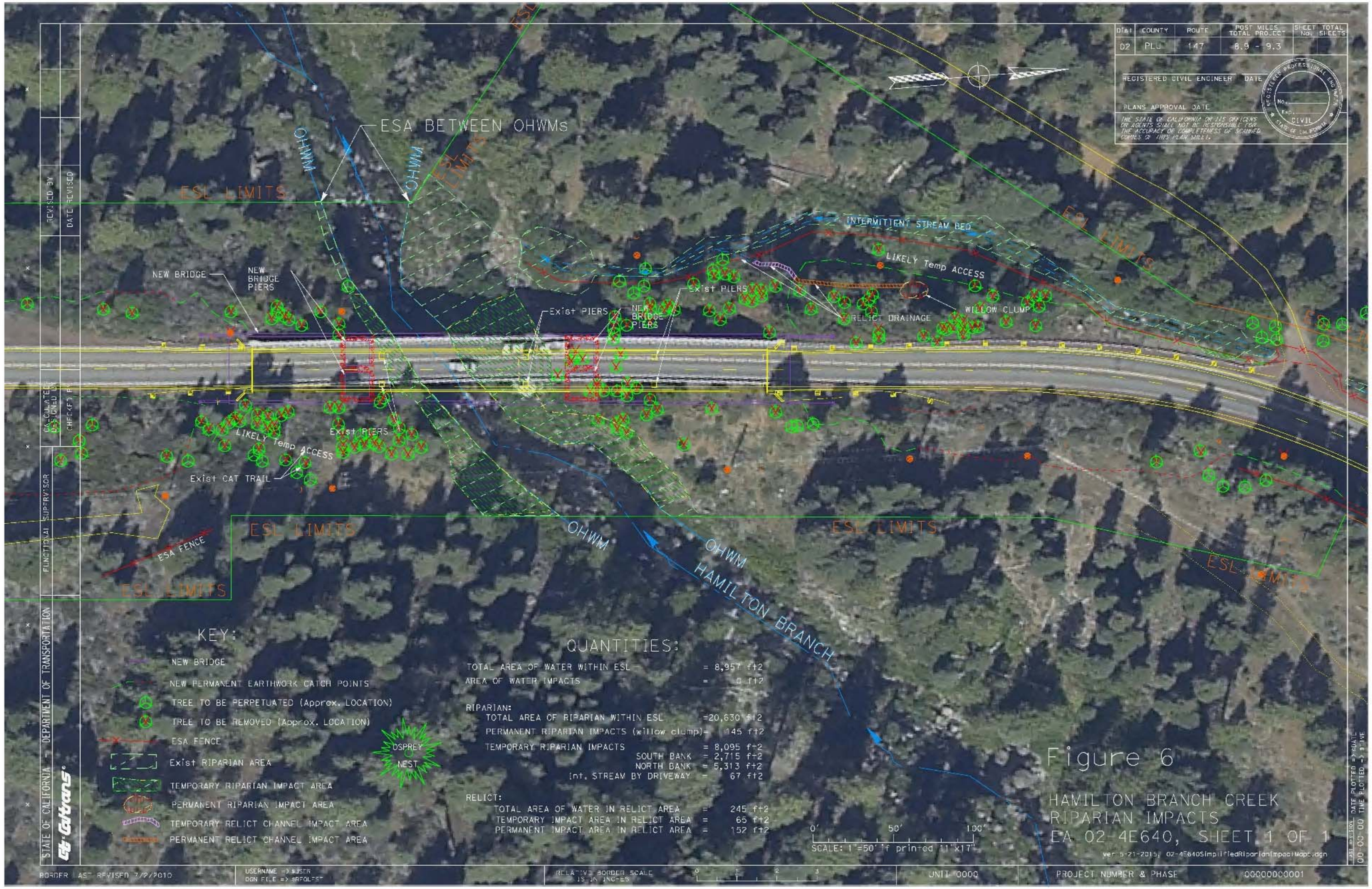
TIME PLOTTED => $TIME


ESA BETWEEN OHWMs
OHWM
OHWM
ESL LIMITS
ESL LIMITS
ESL LIMITS
ESL LIMITS
ESL LIMITS
INTERMITTENT STREAM BED
LIKELY Temp ACCESS
NEW BRIDGE
NEW BRIDGE PIERS
Exist PIERS
NEW BRIDGE PIERS
Exist PIERS
RELICT DRAINAGE
WILLOW CLUMP
LIKELY Temp ACCESS
Exist PIERS
Exist CAT TRAIL
ESA FENCE
OHWM
OHWM
HAMILTON BRANCH
ESL LIMITS
ESL LIMITS
KEY:
NEW BRIDGE
NEW PERMANENT EARTHWORK CATCH POINTS
TREE TO BE PERPETUATED (Approx. LOCATION)
TREE TO BE REMOVED (Approx. LOCATION)
ESA FENCE
Exist RIPARIAN AREA
TEMPORARY RIPARIAN IMPACT AREA
PERMANENT RIPARIAN IMPACT AREA
TEMPORARY RELICT CHANNEL IMPACT AREA
PERMANENT RELICT CHANNEL IMPACT AREA
OSPREY NEST
QUANTITIES:
TOTAL AREA OF WATER WITHIN ESL = 8,957 ft2
AREA OF WATER IMPACTS = 0 ft2
RIPARIAN:
TOTAL AREA OF RIPARIAN WITHIN ESL =20,630 ft2
PERMANENT RIPARIAN IMPACTS (willow clump)= 445 ft2
TEMPORARY RIPARIAN IMPACTS = 8,095 ft2
SOUTH BANK = 2,715 ft2
NORTH BANK = 5,313 ft2
Int. STREAM BY DRIVEWAY = 67 ft2
RELICT:
TOTAL AREA OF WATER IN RELICT AREA = 245 ft2
TEMPORARY IMPACT AREA IN RELICT AREA = 65 ft2
PERMANENT IMPACT AREA IN RELICT AREA = 152 ft2
0' 50' 100'
SCALE: 1"=50' if printed 11"x17"
Figure 6
HAMILTON BRANCH CREEK
RIPARIAN IMPACTS
EA 02-4E640, SHEET 1 OF 1
DIST COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
02 PLU 147 8.9 - 9.3
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA
REVISED BY
DATE REVISED
FUNCTIONAL SUPERVISOR
CALCULATED/DESIGNED BY
CHECKED BY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
BORDER LAST REVISED 7/7/2010
USERNAME => $USER
DGN FILE => $FOLDER
RELATIVE BORDER SCALE IS IN INCHES
UNIT 0000
PROJECT NUMBER & PHASE 0000000001
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME
ver 5-21-2015 02-4E640SimplifiedRiparianImpactMapE.dgn