

**NOTICE OF INTENT TO ADOPT
A MITIGATED NEGATIVE DECLARATION
FOR THE PROPOSED
SCHOOL WAY AT WEST BRANCH RUSSIAN RIVER BRIDGE
(NO. 10C-0084) REPLACEMENT PROJECT**

**Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, California 95482
Phone: (707) 463-4265**

Introduction

This Notice of Intent serves as public notice that the Mendocino County Department of Transportation (County) has prepared and proposes to adopt a Mitigated Negative Declaration for the School Way at West Branch Russian River Bridge (No. 10C-0084) Replacement Project. A Mitigated Negative Declaration has been prepared because no substantial evidence exists that the proposed project may have a significant environmental effect that cannot be fully mitigated to a less-than-significant level. The proposed Mitigated Negative Declaration does not signify approval or disapproval of this project by the County's decision-making bodies. The Mendocino County Board of Supervisors will consider the proposed Mitigated Negative Declaration together with any comments received during the public review process to determine whether the project will have a heretofore unidentified significant impact on the environment.

Project Description

The Mendocino County Department of Transportation proposes to replace the existing bridge (Bridge No. 10C-0084) on School Way over the West Branch Russian River, an action that would include a slight realignment of the new bridge structure to the north of the existing alignment and reconstruction of approximately 1,385 feet of approach roadway. School Way is classified by the Federal Highway Administration as a Rural Major Collector, connecting East Road with West Road in the community of Redwood Valley in Mendocino County. The existing bridge and roadway were built in 1967 to the design standards at that time. A seismic assessment of School Way Bridge was performed in accordance with the California Department of Transportation (Caltrans) Local Bridge Seismic Safety Retrofit Program, and the structure was found to be seismically deficient. The channel bottom has degraded approximately 6 to 8 feet since that time, which has resulted in the channel bottom being 4 to 6 feet below the base of the pile-supported footings. It has also been estimated that an additional 3 feet of channel erosion and 19 feet of scour can be expected over the next 50 to 75 years, indicating that this bridge is also hydraulically deficient. The purpose of the proposed project is to improve public safety by providing a safe river crossing.

The proposed bridge would be a single-span, pre-stressed, cast-in-place, concrete box girder structure that would be somewhat shorter than the existing bridge since the channel bottom elevation has degraded over time and now has a higher hydraulic capacity. The single-span bridge option would minimize the environmental impacts to the river by avoiding the need to construct permanent abutments or piers below the ordinary high water mark; this option was identified as the preferred project design alternative by resource agencies during a site visit in February 2010.

Bridge reconstruction will conform to the standards prescribed in the American Association of State Highway and Transportation Officials (AASHTO) Bridge Design Specifications (American Association of State Highway and Transportation Officials 2010), Caltrans amendments to the AASHTO LRFD specifications (California Department of Transportation 2010a), and Caltrans *Seismic Design Criteria Version 1.6* (California Department of Transportation 2010b). It will include drainage modifications and crash protection at the four bridge rail corners. The proposed project provides for emergency vehicle access across the river that will be maintained during construction of the replacement bridge, although occasionally one lane traffic control is expected. Construction of the proposed project would require the temporary relocation or protection in-place of overhead electric, telephone, natural gas, and wastewater lines that are currently aligned along the existing bridge. The existing North Coast Railroad Authority automobile/railroad track crossing east of the existing bridge would need to be relocated approximately 15-feet north of its current location to accommodate the new roadway alignment; the railroad tracks would remain in place.

A temporary gravel work area would be constructed in the channel to serve as a base for the falsework that would be needed to construct the new bridge and to drop the existing bridge onto during its removal. The temporary work platform would cover the channel from 20-feet downstream of the existing bridge to 20-feet upstream of the proposed bridge (an area extending a total of 280 feet). The project would begin in June when there is usually still a small quantity of flow in the West Branch Russian River—the flow would be routed beneath the work pad through four 4-foot diameter culverts.

Permanent right of way would be required from approximately three parcels adjacent to the project site, while temporary construction easements would be required from approximately five adjacent parcels. It is anticipated the contractor's staging area would be located in either the field at the northeast corner of the existing bridge or in the industrial area east of the bridge.

Project Location

School Way at the West Branch Russian River Bridge (No. 10C-0084) is located in the unincorporated community of Redwood Valley, Mendocino County, California. The project site is approximately 1 mile east of State Route 101 (SR 1)/SR 20, and about 7 miles north of the city of Ukiah. The bridge is located over the West Branch Russian River, a tributary to the mainstem Russian River, which ultimately empties into the Pacific Ocean approximately 60 miles north of the San Francisco Bay Golden Gate. The project site is found on the *Redwood Valley*, California 7.5 minute U.S. Geological Survey quadrangle, Township 16 North, Range 12 West, Yokaya Land Grant, Mount Diablo Base & Meridian (MDBM). The location of the proposed project is shown in Figure 1. Project construction would require permanent right of way

(ROW) north of the existing County ROW. Temporary construction easements for the bridge and approach roadway construction, demolition of the existing bridge, and the contractor staging area would also be needed. The project site corresponds to a Mendocino County ROW easement through portions of the following parcels: 163-131-021, 163-131-15-70, and 163-131-15-00.

See attached location map.

Review Period

As mandated by Public Resources Code § 21091, the minimum public review period for this Initial Study and Proposed Mitigated Negative Declaration is 30 days because the document has been sent to the State Clearinghouse. This document is open to public review and comment from February 15, 2012 through March 14, 2012. **Comments must be received prior to 4:30 p.m. on the last day of the comment period, March 14, 2012.** Any comments on the document may be presented in writing to:

Mendocino County Department of Transportation
Attn: Park Steiner, Environmental Compliance Specialist
340 Lake Mendocino Drive
Ukiah, California 95482
Phone: (707) 463-4265
Fax: (707) 463-5474
steinerp@co.mendocino.ca.us

Public Meetings

A public hearing on the subject project and the Draft Mitigated Declaration will be held and comments received on this Initial Study will be considered by the Mendocino County Board of Supervisors prior to approval of the project, in a public hearing to be held on Tuesday, April 10, 2012, at 11:00 A.M. in the Board of Supervisors Chambers, 501 Low Gap Road, Ukiah, California. Oral comments may be presented to the Board of Supervisors during the public hearing.

Document Availability

A copy of the Public Draft Initial Study with mitigation measures in support of the Draft Mitigated Negative Declaration and supporting technical studies are available for public review on the County's website at <http://www.co.mendocino.ca.us/dot> under the environmental documents tab or at the following locations:

Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, California 95482

Mendocino County Library – Ukiah
105 North Main Street
Ukiah, California 95482

**School Way at West Fork Russian River
Bridge (No. 10C-0084) Replacement Project**

Proposed Mitigated Negative Declaration and Initial Study

February 2012

Prepared for:

Mendocino County
Department of Transportation
340 Lake Mendocino Drive
Ukiah, California 95482
(707) 463-4265
FAX: (707) 463-5474

Prepared by:



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NSR 51175

- 1. Project Title:** School Way at West Fork Russian River Bridge (No. 10C-0084) Replacement Project
- 2. Lead Agency Name and Address** Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, CA 95482
- 3. Contact Person and Phone Number** Park Steiner, Environmental Compliance Specialist
(707) 463-4265
- 4. Project Location** School Way at West Fork Russian River, in the community of Redwood Valley, Mendocino, County, California; T 16N, R 12 W, Yokaya Land Grant, *Redwood Valley* quadrangle; Assessor Parcel Numbers 163-131-021, 163-131-15-70, and 163-131-15-00
- 5. Project Sponsor's Name** Robert Parker, Project Manager
Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, CA 95482
- 6. General Plan Designation** Agricultural (AG-40) - 163-131-021; Rural Residential/Rural Community - 163-131-15-70 and 163-131-15-00
- 7. Zoning** The following zoning designations apply to the proposed project site:
Agricultural; Inland

8. Description of Project

The Mendocino County Department of Transportation proposes to replace the existing bridge (Bridge No. 10C-0084) on School Way over the West Fork Russian River, an action that would include a slight realignment of the new bridge structure to the north of the existing alignment and reconstruction of approximately 1,385 feet of approach roadway. School Way is classified by the Federal Highway Administration as a Rural Major Collector, connecting East Road with West Road in the community of Redwood Valley in Mendocino County. The existing bridge and roadway were built in 1967 to the design standards at that time. A seismic assessment of School Way Bridge was performed in accordance with the California Department of Transportation (Caltrans) Local Bridge Seismic Safety Retrofit Program, and the structure was found to be seismically deficient. The channel bottom has degraded approximately 6 to 8 feet since that time, which has resulted in the channel bottom being 4 to 6 feet below the base of the pile-supported footings. It has also been estimated that an additional 3 feet of channel erosion and 19 feet of scour can be expected over the next 50 to 75 years, indicating that this bridge is also hydraulically deficient. The purpose of the proposed project is to improve public safety by providing a safe river crossing.

The proposed bridge would be a single-span, pre-stressed, cast-in-place, concrete box girder structure that would be somewhat shorter than the existing bridge since the channel bottom elevation has

degraded over time and now has a higher hydraulic capacity. The single-span bridge option would minimize the environmental impacts to the river by avoiding the need to construct permanent abutments or piers below the ordinary high water mark; this option was identified as the preferred project design alternative by resource agencies during a site visit in February 2010.

Bridge reconstruction will conform to the standards prescribed in the American Association of State Highway and Transportation Officials (AASHTO) Bridge Design Specifications (American Association of State Highway and Transportation Officials 2010), Caltrans amendments to the AASHTO LRFD specifications (California Department of Transportation 2010a), and Caltrans *Seismic Design Criteria Version 1.6* (California Department of Transportation 2010b). It will include drainage modifications and crash protection at the four bridge rail corners. The proposed project provides for emergency vehicle access across the river that will be maintained during construction of the replacement bridge, although occasionally one lane traffic control is expected. Construction of the proposed project would require the temporary relocation or protection in-place of overhead electric, telephone, natural gas, and wastewater lines that are currently aligned along the existing bridge. The existing North Coast Railroad Authority automobile crossing east of the existing bridge would need to be relocated approximately 15-feet north of its current location to accommodate the new roadway alignment; the railroad tracks would remain in place.

A temporary gravel work area would be constructed in the channel to serve as a base for the falsework that would be needed to construct the new bridge and to drop the existing bridge onto during its removal. The temporary work platform would cover the channel from 20-feet downstream of the existing bridge to 20-feet upstream of the proposed bridge (an area extending a total of 280 feet). The project would begin in June when there is usually still a small quantity of flow in the West Fork Russian River—the flow would be routed beneath the work pad through four 4-foot diameter culverts.

Permanent right of way would be required from approximately three parcels adjacent to the project site, while temporary construction easements would be required from approximately five adjacent parcels. It is anticipated the contractor's staging area would be located in either the field at the northeast corner of the existing bridge or in the industrial area east of the bridge.

9. Surrounding Land Uses and Setting

Residential/Commercial/School

10. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement.)

- California Department of Fish & Game (Region 1)
- California Regional Water Quality Control Board (North Coast Region)
- California Department of Transportation (District 1)
- Federal Highway Administration
- State Office of Historic Preservation
- U.S. Army Corps of Engineers (San Francisco District)
- National Oceanic and Atmospheric Administration Fisheries Service

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1 Introduction

1.1 Introduction and Regulatory Guidance

This document is an Initial Study (IS) that summarizes the technical studies prepared for the proposed School Way at West Fork Russian River Bridge (No. 10C-0084) Replacement Project (proposed project), evaluates the potential environmental impacts, and provides justification for a Mitigated Negative Declaration (MND) for the proposed project. This document has been prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified.

1.2 Lead Agency

The Lead Agency is the public agency with primary responsibility for implementing a project. The proposed project would receive funding through federal and state sources and would require approvals from the Federal Highway Administration (FHWA) and Caltrans. FHWA has designated Caltrans to act as the National Environmental Policy Act (NEPA) Lead Agency on its behalf. The Mendocino County Department of Transportation (County) is the CEQA Lead Agency. NEPA approval is anticipated to be in the form of a Categorical Exclusion supported by technical studies.

1.3 Supporting Technical Studies

The technical studies listed below are available for review at the County. Please contact:

Park Steiner, Environmental Compliance Specialist
Mendocino County Department of Transportation
340 Lake Mendocino Drive
Ukiah, CA 95482
Phone: (707) 463-4265

Technical studies conducted for this project include:

- Archeological Survey Report (ASR)/Historical Properties Survey Report (HPSR) (confidential; available to qualified readers only)
- Biological Assessment/Essential Fish Habitat Assessment (BA/EFHA) Report
- Natural Environment Study (NES) Report
- Design Hydraulic Study
- Wetland Delineation Report
- Phase 1 Environmental Site Assessment
- Preliminary Geotechnical Investigation

1.4 Document Organization

The Initial Study is composed of the following chapters:

- **Chapter 1.0 – Introduction:** describes the purpose and content of this document.
- **Chapter 2.0 – Project Description:** provides a comprehensive description of the proposed project, tentative schedule, and required permit approvals.
- **Chapter 3.0 – Environmental Impacts and Mitigation Measures:** describes the environmental impacts of the proposed project on the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided that would reduce potentially significant impacts to a less-than-significant level.
- **Chapter 4.0 – Determination:** provides the environmental determination for the proposed project.
- **Chapter 5.0 – Summary of Mitigation Commitments:** provides a comprehensive list of all mitigation measures proposed for the proposed project.
- **Chapter 6.0 – Report Preparation:** identifies the individuals responsible for preparation of this document.
- **Chapter 7.0 –References:** provides a list of references used to prepare this document, including personal communications with agency staff.

2 Project Description

2.1 Location

School Way at the West Fork Russian River Bridge (No. 10C-0084) is located in the unincorporated community of Redwood Valley, Mendocino County, California. The project site is approximately 1 mile east of State Route 101 (SR 1)/SR 20, and about 7 miles north of the city of Ukiah. The bridge is located over the West Fork Russian River, a tributary to the mainstem Russian River, which ultimately empties into the Pacific Ocean approximately 60 miles north of the San Francisco Bay Golden Gate. The project site is found on the *Redwood Valley, California* 7.5 minute U.S. Geological Survey quadrangle, Township 16 North, Range 12 West, Yokaya Land Grant, Mount Diablo Base & Meridian (MDBM). The location of the proposed project is shown in Figure 1. Project construction would require permanent right of way (ROW) north of the existing County ROW. Temporary construction easements for the bridge and approach roadway construction, demolition of the existing bridge, and the contractor staging area would also be needed. The project site corresponds to a Mendocino County ROW easement through portions of the following parcels: 163-131-021, 163-131-15-70, and 163-131-15-00.

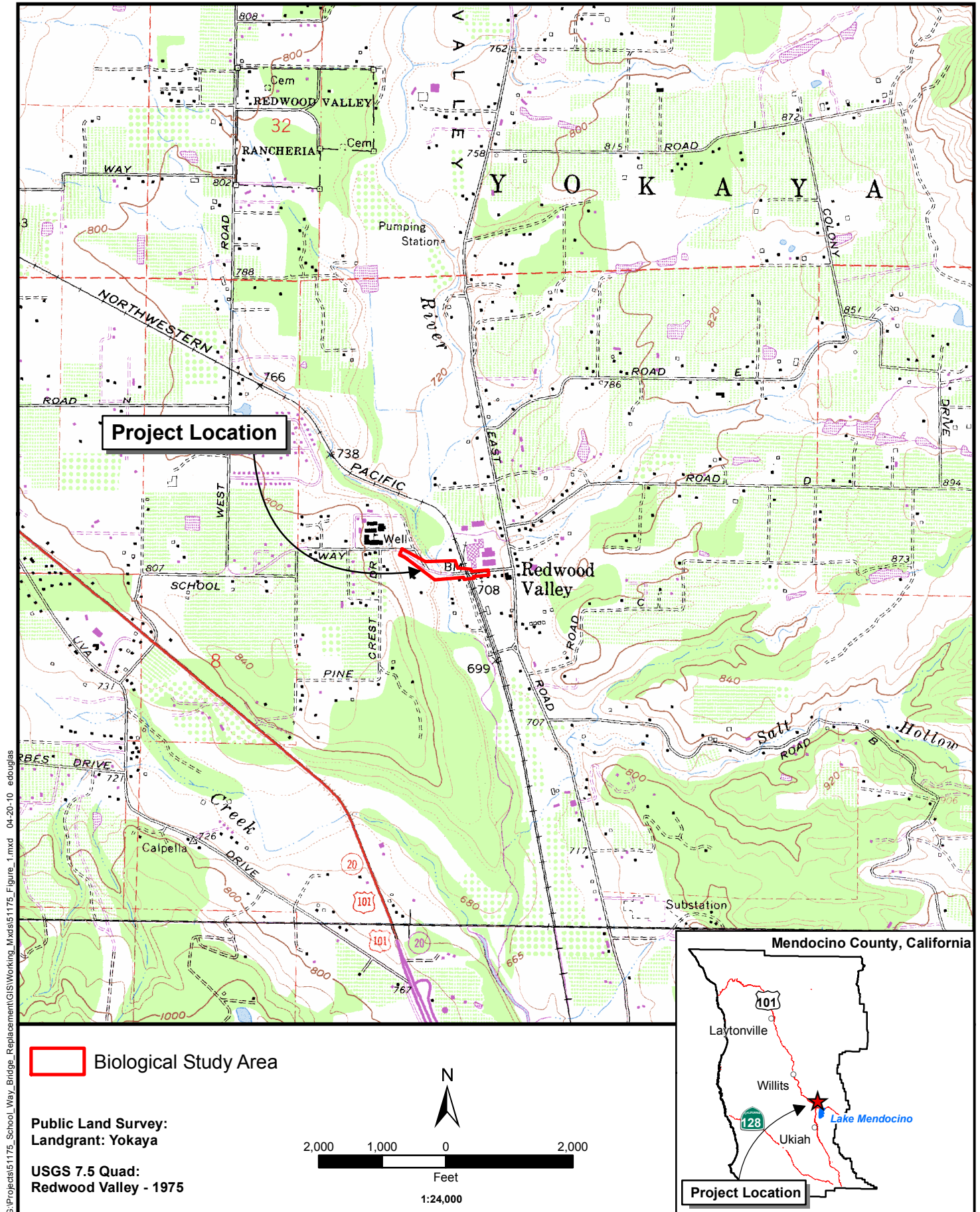
2.2 Existing Facility Conditions

The existing pile-support, three-span, concrete “T”-beam bridge was built in 1967 to design standards at that time and is consistent with the terrain. The existing structure is 35.5-foot wide and each span is 77-foot long, creating a total overall length of 233 feet. The westbound lane is 12-foot wide with a 2-foot wide shoulder; the eastbound lane is also 12-foot wide, but with a 4-foot wide shoulder. The bridge is built on a 600-foot radius curve. A 5-foot wide pedestrian walkway is located on the north side of the bridge. Cantilever abutments are supported on 45-ton steel piles.

The proposed project area is adjacent to Redwood Valley Elementary School (closed in June 2010) to the west. The 600-foot radius curve on School Way begins the descent of the roadway from the west towards the river and the bridge. A tangent section on the east side of the bridge connects School Way with East Road. The School Way/East Road intersection is located approximately 1,100-feet east of the eastern bridge abutments. The bridge design speed is 45 miles per hour, which is consistent with the 600-foot horizontal curves, 8 percent super elevation, and approach lengths.

2.2.1 Hydraulics and Geology

A design hydraulic analysis has been prepared for the purpose of meeting the requirements of 23 CFR §650.115 and §650.117 (Pacific Hydrologic Incorporated 2010). As described in the hydraulic analysis, gravel mining, loss of replenishment after construction of Coyote Valley Dam (1958), and changes in flood hydrologic conditions resulting from operation of Lake Mendocino (created by Coyote Valley Dam) have caused the West Fork Russian River channel in the vicinity of School Way to deepen significantly over the last 40 years. Although gravel mining—considered to be the primary



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Figure 1
Project Location and Vicinity Map

cause of channel deepening—has been curtailed, this past activity, along with the loss of replenishment and changes in flood hydrologic conditions, continues to influence the channel's stability.

The base flood elevation of the West Fork Russian River was last mapped by the Federal Emergency Management Agency (FEMA) in 1983 (Federal Emergency Management Agency 1983). Given the substantial channel incision that has occurred since the last FEMA Base Flood profile was published, the flood hydraulic conditions at the time of mapping does not represent current conditions (Pacific Hydrologic Incorporated 2010). However, because the project would be located in an area previously mapped by FEMA, a Letter of Map Revision—used to document changes in the base flood elevation resulting from a project—should not be necessary because construction of the new bridge would result in a minor decrease in water surface elevation and there is an overarching need to remap the entire West Fork Russian River (Pacific Hydrologic Incorporated 2010).

Geologically, the channel has a limited risk of instability, mainly due to the possibility of significant upstream landslides (Pacific Hydrologic Incorporated 2010). Within the project area, the stream banks are steep and high, but heavy vegetative cover aids in slope stability.

2.3 Project Purpose and Need

The purpose of this project is to improve public safety by providing safe and cost effective solutions for traffic to cross the West Fork Russian River. School Way is classified by the FHWA as a rural major collector, providing access for local traffic, and emergency vehicle access between East Road and West Road. School Way also is used as a detour for permit loads between SR 20 and SR 1. A seismic assessment of the bridge performed in accordance with the Caltrans Local Bridge Seismic Safety Retrofit Program, found the structure to be seismically deficient. It has also been estimated that an additional 3 feet of channel erosion and 19 feet of scour can be expected over the next 50 to 75 years, indicating that this bridge is also hydraulically deficient. Continued use of the existing bridge would require a considerable seismic retrofit and scour mitigation work. Over time, pier foundations have become exposed and a number of seismic loading deficiencies (e.g., insufficient column capacity, bent footings, and inadequate elastic shear capacity of the pinned connection at the footing level) have been identified. Seismic retrofit and significant scour mitigation would be exceedingly costly; therefore, full replacement is proposed.

2.4 Proposed Project

2.4.1 Replacement of Existing Bridge with a New Structure

Structural Considerations

The proposed project area is characterized by the site conditions associated with the West Fork Russian River. Proximity of the project area within a high seismic zone, the skew angle—60 degrees average hydraulic and 30 degrees structural—at which the existing bridge crosses the river, high scour potential, and the tall and steep west river bank dictate the most cost effective substructure and superstructure type proposed for the project. The project boundaries and proposed site layout are shown in Figure 2.

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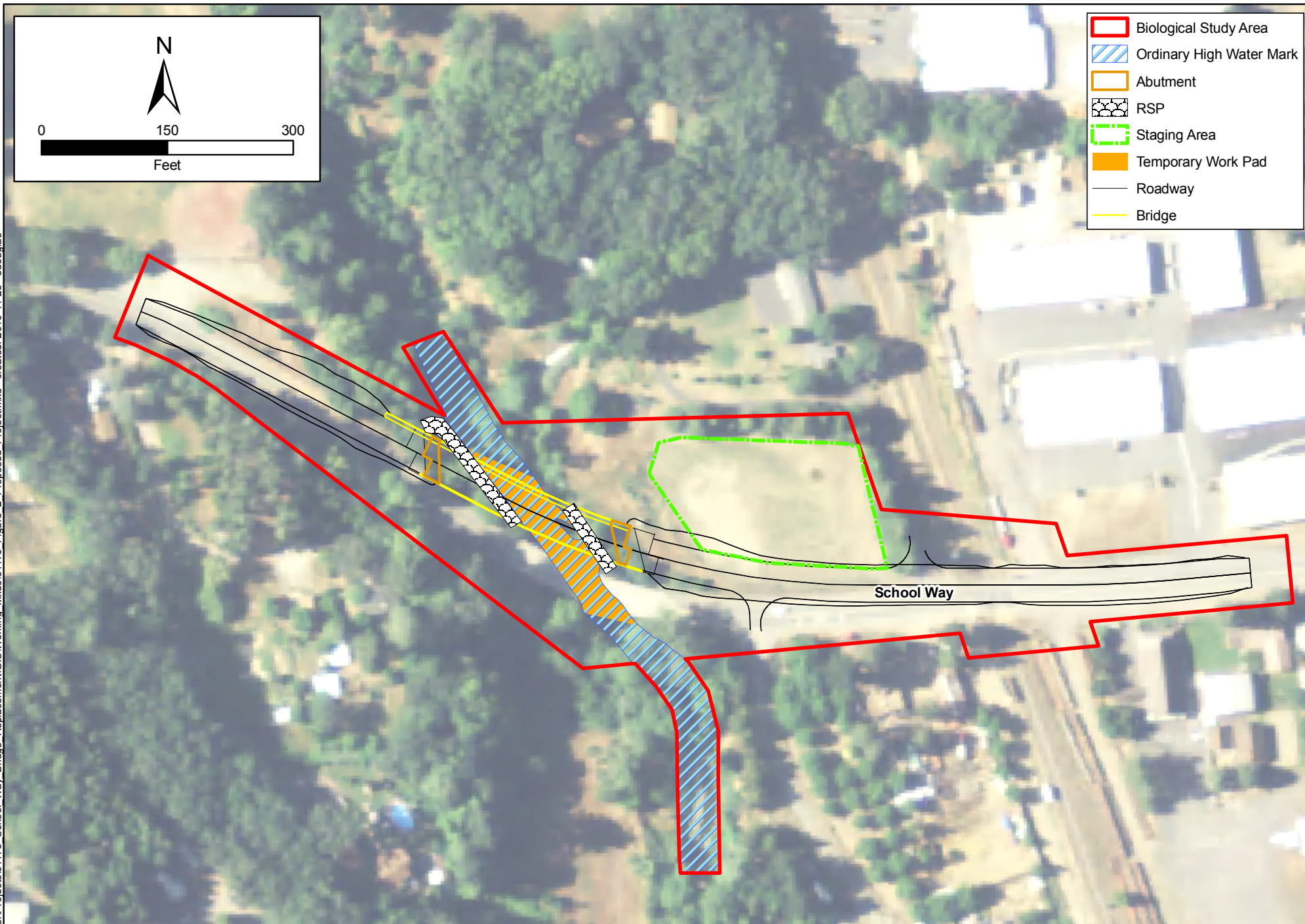


Figure 2
Project Boundaries and Proposed Site Layout

Substructure

Two new bridge abutments would be constructed requiring two areas of excavation (Station 14+00 and 16+25) measuring approximately 20-feet long by 50-feet wide (Figure 3). New abutment footings would be located outside of the low-flow channel on the east and west banks of the river and outside the 100-year water surface elevation. However, abutment embankments would be subjected to high seasonal flows; therefore, scour protection would be required to avoid undercutting. Scour protection consisting of a quarter ton of rock slope protection (RSP) measuring 10-feet wide and stretching 50-feet upstream and 50-feet downstream of the new bridge structure centerline would be placed on both banks, above the low-flow channel of the river. Dump trucks would use a temporary access road adjacent to the new bridge to deliver RSP to the construction site. A large excavator with a bucket/thumb attachment would be used to place the RSP on the river bank. The interstices between rocks would then be planted with willow cuttings and other riparian hardwood trees (e.g., cottonwood). Installation of RSP would require that water in the low-flow channel be diverted to the west side of the project site and a keyway trench be dug. Method B placement would be used so that the top surface of the RSP would be at the approximate elevation of the original channel grade. This would avoid impinging hydraulic flow within the channel and would not adversely impact the upstream flooding characteristics of the river. The RSP is expected to have a 3- to 4-foot minimum thickness over a 1- to 3-foot thick No. 2 backing layer with RSP fabric underneath. The depth of the end of the RSP key is expected to be approximately 6 feet and would slope back to the bottom of the abutment front footing face. The RSP is anticipated to extend approximately 15 feet from the front face of each abutment footing face. This would provide approximately 60 feet of natural channel bedding for the low-flow channel between the keyed-in RSP toes.

Silt-laden groundwater, if encountered, would be pumped to a temporary sediment detention basin(s) located outside of the active flow channel. If necessary, the detention basin(s) would be constructed of sandbags secured with filter fabric. A 60-foot long retaining wall would be constructed in the northwest corner of the new bridge structure to stabilize roadway fill and prevent it from entering the river channel.

Because the West Fork Russian River has the potential to transport large volumes of woody debris of all sizes (branches to large tree trunks), the proposed bridge has been designed without piers in order to provide the minimum drift clearance recommended by Caltrans and FHWA.

Superstructure

The reinforced concrete superstructure would be a single-span, pre-stressed, cast-in-place box girder structure supported on two seat-type abutments. The single-span bridge option would minimize the environmental impacts to the river by avoiding the need to construct abutments or piers inside the active channel or below the 100-year flood elevation; this option was identified as the preferred project design alternative by resource agencies during a site visit in February 2010. The total span length is anticipated to be about 230 feet. The new bridge would provide two 12-foot wide traffic lanes, each having an 8-foot wide shoulder. Concrete barrier rails would extend the length of both sides of the bridge, and a 5-foot wide walkway would be added to the bridge's north side. The new bridge would be designed to the standards specified in the American Association of State Highway and Transportation Officials (AASHTO) Bridge Design Specifications (American Association of State Highway and Transportation Officials 2010), Caltrans amendments to the AASHTO LRFD

specifications (California Department of Transportation 2010a), and Caltrans *Seismic Design Criteria Version 1.6* (California Department of Transportation 2010b).

Abutments would be constructed from cast-in-place concrete founded on driven piles. These would be installed from the new approaches, which would be outside of the ordinary high water mark (Figure 3). In addition, both bridge abutments would be outside of the 100-year flood flow channel and above the 100-year flood water surface elevation. The upstream (northern) corner of Abutment 1 would be just outside the 100-year flood flow path, and the front face of this abutment would skew away from the 100-year flood flow path. Abutment 2 would be much further outside the 100-year flood water surface elevation. Both abutments would be founded on approximately 80 driven steel H-piles preliminarily estimated at approximately 60- to 80-feet long. Materials under both abutments consist primarily of over-consolidated clays, and very dense sands and gravels, with the materials beneath Abutment 1 generally more cemented and denser than those beneath Abutment 2.

Alignment

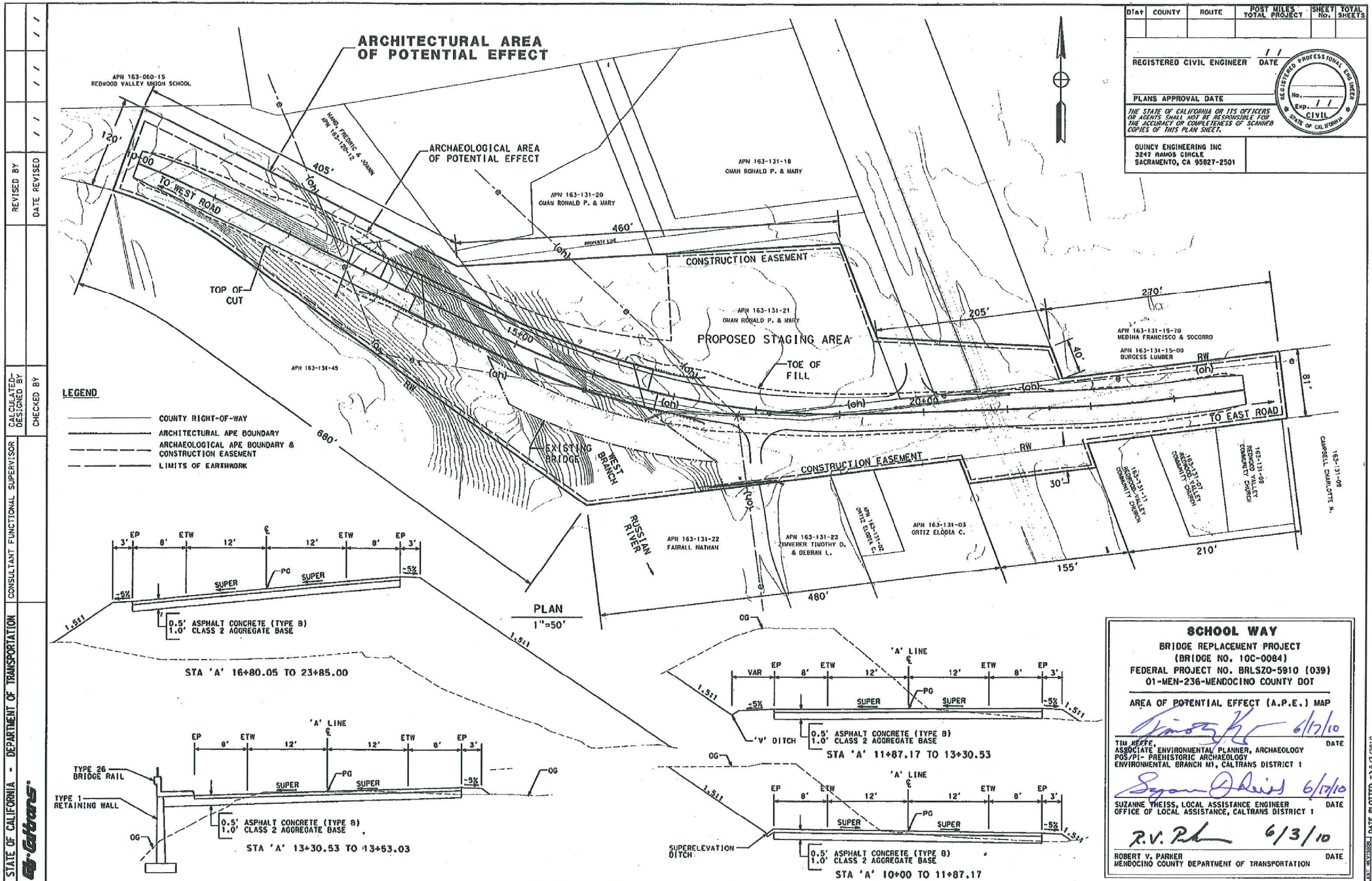
The new bridge structure would be constructed north (upstream) of the existing bridge to allow School Way to remain open with at least one lane, but likely two lanes of traffic during construction. Neither the new bridge structure nor its roadway approach embankment would encroach into the river's low-flow channel. The vertical alignment of the new structure provides adequate clearance for freeboard, thus the new bridge would not differ much from the existing vertical alignment.

Roadway Approaches

Approximately 1,385 feet of new approach roadway would be constructed for the new alignment. The new roadway approaches would consist of two 12-foot wide traffic lanes and two 8-foot wide shoulders. Construction will conform to the standards prescribed in the 2009 AASHTO Green Book for Rural Major Collectors and will include drainage modifications and crash protection at the four bridge rail corners. The new bridge would have a 45 mile-per-hour design speed. Access to driveways within the project area would be provided during construction.

Instream Construction and Dewatering Activities

A temporary work area (i.e., gravel pad) would be created in the channel to allow for the construction of falsework for the new bridge structure and to serve as a place to lay down the old bridge during its removal. A temporary work platform would be constructed of suitably-sized salmon spawning gravel "fish rock" covered with clean, crushed, angular gravel placed on top of geotextile fabric (to separate the crushed angular gravels from the fish rock). The platform would extend 20-feet downstream of the existing bridge to 20-feet upstream of the proposed bridge (an area extending a total of 280 feet). Although instream construction would occur during the dry summer months (beginning in June), there would be a small amount of flow within the river that would need to be temporarily routed under the work pad using four 4-foot diameter culverts. A temporary diversion consisting of clean gravel and plastic sheeting at the upstream end of the work pad would be used to divert flows into the culverts and beneath the work pad. The culverts were designed using the Hydraulic Design Method described by the National Marine Fisheries Service (NMFS) (National Marine Fisheries Service 2001) to match the hydraulic performance of the culverts with the swimming abilities of the target species and age class, which for this project, is juvenile steelhead.



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The cast-in-place, post-tensioned concrete bridge would be built on falsework—a temporary framework on which the permanent bridge structure and construction activity would be supported during construction until the permanent bridge structure has reached sufficient strength to support loads. The falsework would be an engineered system, typically consisting of the required bridge concrete formwork supported on a temporary stringer and post system. It is likely that this falsework system would use timber and plywood forms, rolled steel girders, and timber posts supported on timber foundation pads. In order to provide an adequate and level support surface for the timber pads, imported clean gravel would be placed on the ground surface to form a proper work pad. An excavator would be used to chip away the existing bridge. Pieces would be allowed to fall onto a gravel pad beneath the bridge. Debris would be removed from the pad and disposed of offsite in a suitable location. Blasting would not be allowed. The falsework, water diversion, and gravel construction pad would be removed and settling basins would be backfilled upon completion of work. The river channel would be restored to its pre-existing condition. Large-woody debris would be keyed into the bank to increase complex rearing habitat in the West Fork Russian River. Removal techniques and containment systems used would meet applicable permit requirements.

Replacement of the existing School Way bridge with a new structure and placement of RSP along the east bank of the West Fork Russian River channel would involve the following sequence of actions:

- Culverts would be placed instream from approximately 20-feet upstream of the proposed bridge to 20-feet downstream of the existing bridge. Flow would be temporarily diverted and directed into the culverts using clean gravel and plastic sheeting.
- Cast-in-place concrete bridge abutments would be constructed outside of the low-flow channel. These abutments would be founded on driven H-piles.
- Rock slope protection would be installed along both banks of the river. An excavator with a bucket/thumb attachment would be used to place the RSP, which would start with a 10-foot wide apron at the base and follow the ground slope up the bank(s). Dump trucks would drop RSP into the construction area from a temporary access road that would be constructed in the uplands adjacent to the new bridge alignment. Installation of the RSP is anticipated to take approximately 2 to 3 weeks to complete.
- Gravel would be used to fill the voids between the larger rocks used as RSP below the ordinary high water mark. Voids between rocks placed above the ordinary high water mark would be filled with well-graded soil, suitable for riparian plantings (e.g., willow cuttings, cottonwood seedlings). Planting would occur over the face of the RSP at a variety of elevations above the ordinary high water mark.
- Construct an instream gravel pad and falsework for the new bridge construction.
- Construct a retaining wall and the new bridge deck.
- Remove falsework.

- Upon completion of the new bridge, remove the existing bridge using an excavator equipped with a chipping tool. Concrete debris would be allowed to fall onto the instream gravel pad where it would be gathered and transported offsite for disposal at a suitable location.
- Once the existing bridge is removed, the crushed rock atop the gravel work pad would be removed and disposed offsite. The culverts would be removed beginning at the downstream end of the diversion, leaving the suitable sized materials to be manually (by hand) redistributed by the contractor so that they would not constitute a barrier to fish passage.

Hydraulics and Geology

A design hydraulic analysis has been prepared for the purpose of meeting the requirements of 23 CFR §650.115 (Design Standards) and §650.117 (Content of Design Studies) (Pacific Hydrologic Incorporated 2010). The hydraulic analysis used computer modeling (HEC-RAS) and empirical equations (FHWA HEC-18) to determine the scour potential and minimum soffit elevation (704.30 feet) for the proposed bridge structure under most probable 100-year flood and 50-year flood event flows (3.29 feet above 100-year flood and 4.28 feet above 50-year flood event flows). As shown in Table 1, the analysis concluded that construction of the proposed bridge would result in a slightly reduced water surface elevation during infrequent floods in the West Fork Russian River.

Table 1. Hydraulic Analysis Results

| Bridge | Flood Type | Flow (cubic feet per second) | Flood Return Period (years) | Water Surface Elevation ^A (feet-mean sea level) | Average Channel Velocity ^B (feet per second) |
|--|----------------------|------------------------------------|--------------------------------------|---|--|
| Existing Bridge Hydraulic Conditions | Standard | 7,200 | 50 | 700.23 | 14.1 |
| | Base | 8,050 | 100 | 701.20 | 15.0 |
| | Flood of Record | 6,500± | 30± | 699.4± | 14± |
| | Overtopping Flood | >10,000 | >200 | 708.0 | >16 |
| Proposed 110-Foot (effective hydraulic) Span Bridge Hydraulic Conditions | Standard | 7,200 | 50 | 700.02 | 12.5 |
| | Base | 8,050 | 100 | 701.01 | 12.8 |
| | Flood of Record | 6,500 | 30± | 699.2± | 12± |
| | Overtopping Flood | >10,000 | >200 | — | >13 |

Notes: ^AMeasured at cross-section 3,170 located approximately 170-feet upstream of the upstream face of the existing bridge at midspan.

^BHighest average channel velocity near bridge.

Source: Pacific Hydrologic Incorporated 2010

Bank protection measures such as RSP, proposed for use under the new bridge would be used to prevent further channel degradation. If unchecked, hydraulic analysis determined that as much as 3 feet of additional channel deepening, along with bank erosion and/or sloughing can be expected in the project area (Pacific Hydrologic Incorporated 2010). Bridge replacement would not change the

sediment transport characteristics of the West Fork Russian River or have a significant effect on channel stability as a whole; however, the proposed project would improve channel conditions in the immediate project area and extend the life of the new bridge by minimizing the effects of hydraulics on the abutment foundations.

Right-of-Way

Permanent ROW is required from three parcels (163-131-21, 163-131-15-70, and 163-131-15-00), while temporary construction easements would be required from five parcels: 163-060-15, 163-120-12, 163-131-18, 163-131-20, and 163-131-45. ROW acquisition would be primarily on the north side of the new bridge alignment. The County has adequate ROW on a majority of the south side of the new alignment. It is anticipated that the contractor's staging area would be located in the field north of the east side of the existing bridge (on parcel 163-131-21).

Utilities

A Pacific Gas and Electric (PG&E) overhead electric facility and underground natural gas facility would require relocation or protection in place during construction. Water lines belonging to the Redwood Valley County Water District and overhead communication lines belonging to AT&T Communications and Comcast would also need to be relocated as a result of project construction. Utilities requiring relocation as a result of the proposed project would be aligned on or adjacent to the new bridge.

The existing North Coast Railroad Authority (NCRA) automobile crossing east of the existing bridge would need to be relocated approximately 15-feet north of its current location to accommodate the new roadway alignment; the railroad tracks would remain in place.

Aesthetic Requirements

There are no scenic resources or areas within the proposed project area. All construction activities would be completed in a manner that would not be out of character with the existing School Way aesthetic. No changes in the levels of light, glare, or shadows associated with the current road conditions are expected to occur as a result of implementing the proposed project.

Temporary Detour

During construction, traffic through the construction area would be maintained along the existing bridge and School Way. Since the average daily traffic is relatively low, the need for traffic control devices such as temporary stop lights would not be needed. Stop signs during non-construction times and flagging during construction hours are anticipated.

2.4.2 Design Criteria

All design specifications, including horizontal and vertical roadway alignment geometry, were developed based on the following:

Bridge Design

Using AASHTO LRFD Bridge Design Specifications (American Association of State Highway and Transportation Officials 2010) and Caltrans amendments to the AASHTO LRFD specifications (California Department of Transportation 2010a), the proposed structure would be designed for HS-93 with “Low Boy” permit, and alternative live loading, and would satisfy the current Seismic Design Criteria (SDC) Version 1.6 (California Department of Transportation 2010b). Hydraulic Design Criteria outlined in Caltrans’ Local Procedures Manual prescribe that the bridge be capable of conveying the base or 100-year flood and passing a 50-year flood without creating excessive flow velocities, encroaching onto traffic lanes, or creating objectionable backwater. The new bridge must have a minimum of 3-feet of freeboard between the bridge and flows resulting from a 50-year flood event and/or be capable of withstanding the scour effects of a base flood (i.e., 100-year flood). (The project hydraulic analysis concluded that the new bridge would have a soffit elevation of 3.29 feet above the 100-year flood and 4.28 feet above the 50-year flood.) The proposed project is not a Type I project as defined in 23 CFR 772.5(h). The project would require only minor alterations to the existing horizontal and vertical alignments with no increase in the number of through traffic lanes.

Roadway Design

Roadway alignment and design information are based on topographic information. The roadway design would be based on the Caltrans Highway Design Manual and AASHTO’s *Policy on Geometric Design of Highways and Streets 2001* (Green Book). The new roadway would consist of two 12-foot lanes with 8-foot shoulders.

2.4.3 Construction Criteria and Methods

Construction of the replacement bridge and roadway approach improvements would follow the criteria and methods outlined below.

Specifications

Construction specifications would be in accordance with Caltrans Standard Specifications (which are in force at the time the construction contract is awarded) and Special Provisions.

2.4.4 Traffic Control/Detour

The existing bridge would remain in operation throughout construction and continue to provide for two-way traffic. Direct access to residences and businesses in the project vicinity would not be permanently affected by implementation of the proposed project. Throughout construction, access to these adjacent properties from School Way would be maintained. The proposed project would not require a temporary detour or closure of School Way.

2.4.5 Contractor Staging Areas/Construction Access Routes

Equipment and materials would be staged in the field just north of the easterly side of the bridge (Figure 3). Temporary construction easements would be needed for the bridge and approach roadway construction, as well as for the existing bridge demolition and contractor’s staging area. A temporary

access road would be constructed along the eastern and western banks in order to get construction equipment to the project site.

2.4.6 Air Pollution and Dust Control

Air pollution control would conform to Caltrans Standard Specifications, which requires the contractor to implement a dust control program to limit fugitive dust emissions. Additionally, the contractor is required to comply with all applicable air pollution control rules, regulations, ordinances, and statutes.

2.4.7 Fill Import and Export

Construction of the new bridge would require approximately 8,740 cubic yards of backfill (from project site and commercial sources) and approximately 7,790 cubic yards of excavation. Construction of the bridge abutments would require two excavation areas, each measuring approximately 20-feet long by 50-feet wide (Figure 2). Some of this excavated material would be used to backfill the new abutments. Imported fill would consist of engineered road base (crushed rock from a commercial source), asphalt, and RSP. Table 2 provides a summary of project fill and excavation quantities.

Table 2. Excavation and Fill Quantities

| Activity | Amount of Excavation (cubic yards) | Amount of Fill (cubic yards) |
|---|---------------------------------------|---------------------------------|
| Roadway approach | 2,950 | 3,425 |
| Existing bridge abutment | 880 | 1,180 |
| New bridge abutments | 800 | 1,060 |
| Temporary diversion | 2,500 | 2,500 |
| Rock slope protection | 660 | 560 |
| Planting soil (between RSP interstices) | — | 15 |
| TOTAL | 7,790 | 8,740 |

Notes: Amounts of excavation and fill are in cubic yards.

2.4.8 Water Pollution Prevention

The contractor is required to implement water pollution control measures that conform to Section 7-1.01G of Caltrans Standard Specifications. Some of these key water pollution control measures are listed below:

- The contractor shall exercise every reasonable precaution to protect the West Fork Russian River from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials and shall conduct and schedule operations so as to avoid or minimize muddying and silting of the West Fork Russian River. Care shall be exercised to preserve roadside vegetation beyond the limits of construction.

- Water pollution control work is intended to provide prevention, control and abatement of water pollution to the West Fork Russian River, and shall consist of constructing those facilities that may be shown on the plans, specified herein or in the special provisions, or directed by the Engineer.
- The contractor shall provide temporary water pollution control measures, including but not limited to, dikes, basins, ditches, and applying straw and seed, which may become necessary as a result of the contractor's operations. The contractor shall coordinate water pollution control work with all other work done on the contract.
- Before starting any work on the project, the contractor shall submit, for acceptance by the Engineer, a program to control water pollution effectively during construction of the project. The program shall show the schedule for the erosion control work included in the contract and for all water pollution control measures that the contractor proposes to take in connection with construction of the project to minimize the effects of the operations upon adjacent streams and other bodies of water. The contractor shall not perform any clearing and grubbing or earthwork on the project, other than that specifically authorized in writing by the Engineer, until the program has been accepted.
- If the measures being taken by the contractor are inadequate to control water pollution effectively, the Engineer may direct the contractor to revise the operations and the water pollution control program. The directions will be in writing and will specify the items of work for which the contractor's water pollution control measures are inadequate. No further work shall be performed on those items until the water pollution control measures are adequate and, if also required, a revised water pollution control program has been accepted.
- The Engineer will notify the contractor of the acceptance or rejection of any submitted or revised water pollution control program in not more than 5 working days.
- Unless otherwise approved by the Engineer in writing, the contractor shall not expose a total area of erodible earth material, which may cause water pollution, exceeding 83,720 yd² for each separate location, operation, or spread of equipment before either temporary or permanent erosion control measures are accomplished.
- Where erosion that will cause water pollution is probable due to the nature of the material or the season of the year, the contractor's operations shall be so scheduled that permanent erosion control features will be installed concurrently with or immediately following grading operations.
- Nothing in the terms of the contract nor in the provisions in this Section 7-1.01G shall relieve the contractor of the responsibility for compliance with Sections 5650 and 12015 of the California Department of Fish and Game (CDFG) Code, or other applicable statutes relating to prevention or abatement of water pollution.

The contractor shall also conform to the following provisions:

- Where working areas encroach on live streams, barriers adequate to prevent the flow of muddy water into streams shall be constructed and maintained between working areas and streams, and during construction of the barriers. Muddying of streams shall be held to a minimum.
- Mechanized equipment shall not be operated in the live stream channel except as may be necessary to construct crossings or barriers and fills at channel changes.
- Water containing mud or silt from aggregate washing or other operations shall be treated by filtration, or retention in a settling pond, or ponds, adequate to prevent muddy water from entering live streams.
- Oily or greasy substances originating from the Contractor's operations shall not be allowed to enter a stream or be placed in a location where the potential for stream contamination may occur.
- Portland cement or fresh Portland cement concrete shall not be allowed to enter flowing water of streams.
- Material derived from roadway work shall not be deposited in a stream channel where it could be washed away by high stream flows.

2.5 Tentative Schedule

Construction associated with the proposed project cannot begin until the environmental document has been adopted by the County and Caltrans (on behalf of FHWA); the final design, plans, specifications, and cost estimates have been prepared; the ROW has been acquired; the necessary permits have been acquired; and approvals from state and federal agencies have been obtained. It is anticipated that the earliest that construction would start begin in May 2012. Construction is anticipated to require two construction seasons, with project completion expected by October 2013. Bridge removal would require approximately one week. Foundation and substructure construction would require several weeks. Superstructure erection would require an additional several weeks. Roadway approaches would require several weeks. All instream activities, including bridge removal, and substructure and superstructure construction activities would be confined to a work period between June 15 through October 31 to minimize and/or avoid potential effects on water quality. Temporary erosion control measures, such as silt fencing and straw bales, would be used to ensure that disturbed areas do not discharge sediment to the West Fork Russian River in the event of rain. Construction activities within the ordinary high water mark of the West Fork Russian River channel may be allowed outside of the June 15 through October 31 period if permitted by CDFG and the North Coast Regional Water Quality Control Board (RWQCB), depending on weather conditions. Other bridge construction activities occurring outside of this period would be limited to construction site cleanup and revegetation, deck work on the new bridge structure, road paving and striping, and/or other activities that can be accomplished outside of the ordinary high water boundaries.

2.6 Required Permits and Approvals

The following permits and approvals likely will be required to implement the proposed project:

- U.S. Army Corps of Engineers – San Francisco District (Eureka Field Office): Section 404 Nationwide Permit 14 (Linear Transportation Crossing Projects)
- National Marine Fisheries Service – Endangered Species Act Compliance (Biological Opinion)
- California Department of Fish and Game – Redding Office: Section 1602 Streambed Alteration Agreement; State Endangered Species Act Compliance
- North Coast Regional Water Quality Control Board: Section 401 Water Quality Certification
- Mendocino County Floodplain Development Permit

2.7 No Project Alternative

In addition to the action alternatives that were considered, the County also considered a “No Project” alternative in its evaluation of the project, pursuant to CEQA. Under the No Project alternative, the County would not proceed with replacement of the existing School Way bridge. However, Caltrans and FHWA have identified the existing bridge structure as being seismically and hydraulically deficient. Implementation of the No Project alternative could result in future public safety issues associated with structural integrity in the event of an earthquake or flood.

3 Environmental Setting, Impacts, and Mitigation Measures

This chapter incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, including the CEQA Mandatory Findings of Significance. Each resource section provides a brief description of the setting, a determination of impact potential, and a discussion of the impacts. Where appropriate, mitigation measures are provided that would be used by the County to reduce potential impacts to a less-than-significant level. A discussion of cumulative impacts is included at the end of this chapter.

Addressed in this section are the following 17 environmental categories:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

Each of these issue areas was fully evaluated and one of the following four impact determinations was made:

- **No Impact:** No impact to the environment would occur as a result of implementing the proposed project.
- **Less-than-Significant Impact:** Implementation of the proposed project would not result in a substantial and adverse change to the environment and no mitigation is required.
- **Less than Significant With Mitigation Incorporated:** A “significant” impact that can be reduced to a less-than-significant level with the incorporation of project-specific mitigation measures.
- **Potentially Significant Impact:** Implementation of the proposed project could result in an impact that has a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382).

3.1 Environmental Setting

3.1.1 Regional Setting

The Russian River watershed is one of the largest drainages in northern California. The 110-mile long river links steep mountains, coniferous forests, chaparral, and oak woodlands with wide, flat river valleys. Upstream of Ukiah, the Russian River splits into two branches (east and west). These branches flow through several alluvial valleys separated by rocky gorges. Fertile valley soils are important to regional agriculture, particularly viticulture. Recent population growth of some of the region's larger cities—Santa Rosa, Ukiah, and Windsor—has encroached into agricultural lands; however, urban areas in the Russian River watershed continue to make up a relatively small part of the region's land use.

3.1.2 Local Setting

The proposed project is located in the Redwood Valley, one of the northernmost sub-watersheds of the Russian River. Historically, the West Fork Russian River, which passes through the project area, would dry up during the summer. However, artificial summer flows resulting from hydroelectric and water supply projects developed upstream of the Redwood Valley are common.

Redwood Valley is both residential and agricultural, with wine grapes being the primary crop. Redwood Valley is also home to the Redwood Valley Rancheria and the Coyote Valley Reservation of the native Pomo people.

Climate within the project area is characterized as Mediterranean, with cool, wet winters and hot, dry summers (Western Regional Climate Center 2010). Precipitation in the project area averages approximately 37 inches annually, falling primarily as rain. Average air temperatures range between a January high of 57 degrees Fahrenheit (°F) and a July high of 93 °F. The year-round average high is approximately 74 °F.

3.1.3 Existing Land Uses

The project area lies in the floodplain of the West Fork Russian River. The current and recent land uses associated with the project area consist of public roadway (including ROW), waterway, railroad, and private land. The parcels affected by the proposed project are zoned for rural residential and agriculture, and a few parcels are unclassified, although they are currently used for commercial purposes. School Way is a two-lane road within the small community of Redwood Valley. There is an elementary school (closed in June 2010) and several private residences adjacent to the project area west of the bridge. East of the bridge there is a light industrial area, and the NCRA track crosses School Way approximately 0.1 mile east of the existing bridge.

3.1.4 Topography and Hydrological Setting

Topography within the project area is dominated by the West Fork Russian River channel and the adjacent river valley terraces. The slope of School Way from the west, down to the existing bridge, is approximately eight percent. The bridge deck is at an approximate elevation of 705 feet mean sea level. The river channel is deeply incised, and the western bank is steeper and taller than the eastern

bank. The western bank slope exceeds 45 degrees (100 percent). All sheet flow along the road and terraces on both sides of the bridge drain towards river channel.

Hydrology in the project area is driven by the West Fork Russian River, which drains to the south through the project area. The West Fork Russian River is a sixth order (medium) stream that is a direct tributary to the mainstem Russian River located approximately five air miles south of the project area (California Department of Fish and Game 2003). The West Fork Russian River is an intermittent stream with estimated average summer flows of less than two cubic feet per second (cfs). Based on consistent winter flows, the West Fork Russian River is classified as a Relatively Permanent Water¹, but is mapped as an intermittent stream, as allowed under the Relatively Permanent Water classification. These flow conditions are based on a review of stream flow data from water years 2005 to 2009 from the USGS Gage No. 11461000 located near Ukiah, California (North State Resources Inc. 2010).

Soils

The soil map units in the project area and vicinity are described in the *Soil Survey of Mendocino County, Eastern Part and Southwestern Part of Trinity County* (U.S. Department of Agriculture 1991). Three soil map units occur in the project area:

- **Pinole gravelly loam, 8 to 15 percent slopes.** This is a non-hydric, well drained soil formed in alluvium. The depth to a restrictive layer is greater than 78 inches.
- **Pinole gravelly loam, 15 to 30 percent slopes.** This is a non-hydric, well drained soil formed in alluvium. The depth to a restrictive layer is greater than 78 inches.
- **Russian loam, gravelly substratum, 0 to 2 percent slopes.** This is a partially-hydric, well drained soil formed in alluvium. The depth to a restrictive layer is greater than 78 inches.

Geology

The *Geologic Map of California, Ukiah Sheet* (1960) indicates the geology of the project area and vicinity is comprised of Quaternary alluvium derived from sedimentary and meta-sedimentary rocks laid down during the recent (Holocene) era, and Quaternary non-marine terrace deposits laid down during the late Pleistocene era (State of California Department of Conservation, Division of Mines and Geology 1960). The larger surrounding area is comprised of Franciscan Formation rocks created during the Mesozoic era 150 to 70 million years ago (State of California Department of Conservation, Division of Mines and Geology 1960).

Vegetation Communities/Wildlife Habitats

Habitat types were classified based on the descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988). The habitat types occurring within the project area

¹ Relatively Permanent Non-Navigable Tributaries of Traditional Navigable Waters: These are non-navigable water bodies with continuous flow, at least seasonally (typically three months), whose waters flow into a traditional navigable water (U.S. Environmental Protection Agency and Department of the Army 2007).

include barren, montane riparian, riverine, and urban. Habitat types within the proposed project area boundaries are shown in Figure 4.

Barren

The barren habitat is generally devoid of vegetation and includes School Way, adjacent gravel shoulders and parking areas, and the NCRA railroad track. Sparse opportunistic weedy species may be present within barren habitat.

Montane Riparian

Montane riparian habitat occurs along the entire length of the West Fork Russian River within the project area. Montane riparian habitat is generally characterized as a dense, multi-layered canopy with a dense understory. The dominant canopy tree is white alder (*Alnus rhombifolia*), and California bay (*Umbellularia californica*), with arroyo willow (*Salix lasiolepis*) dominate in the mid-canopy. The west bank is very steep (slopes exceed 100 percent) and the mid-canopy shrubs are less dense than those of the east bank. Himalayan blackberry (*Rubus discolor*) is common in the project area. Subdominant trees and shrubs include big leaf maple (*Acer macrophyllum*), coyote brush (*Baccharis pilularis*), Oregon ash (*Fraxinus latifolia*), Fremont cottonwood (*Populus fremontii*), California black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*), red willow (*Salix laevigata*), and California grape (*Vitis californica*).

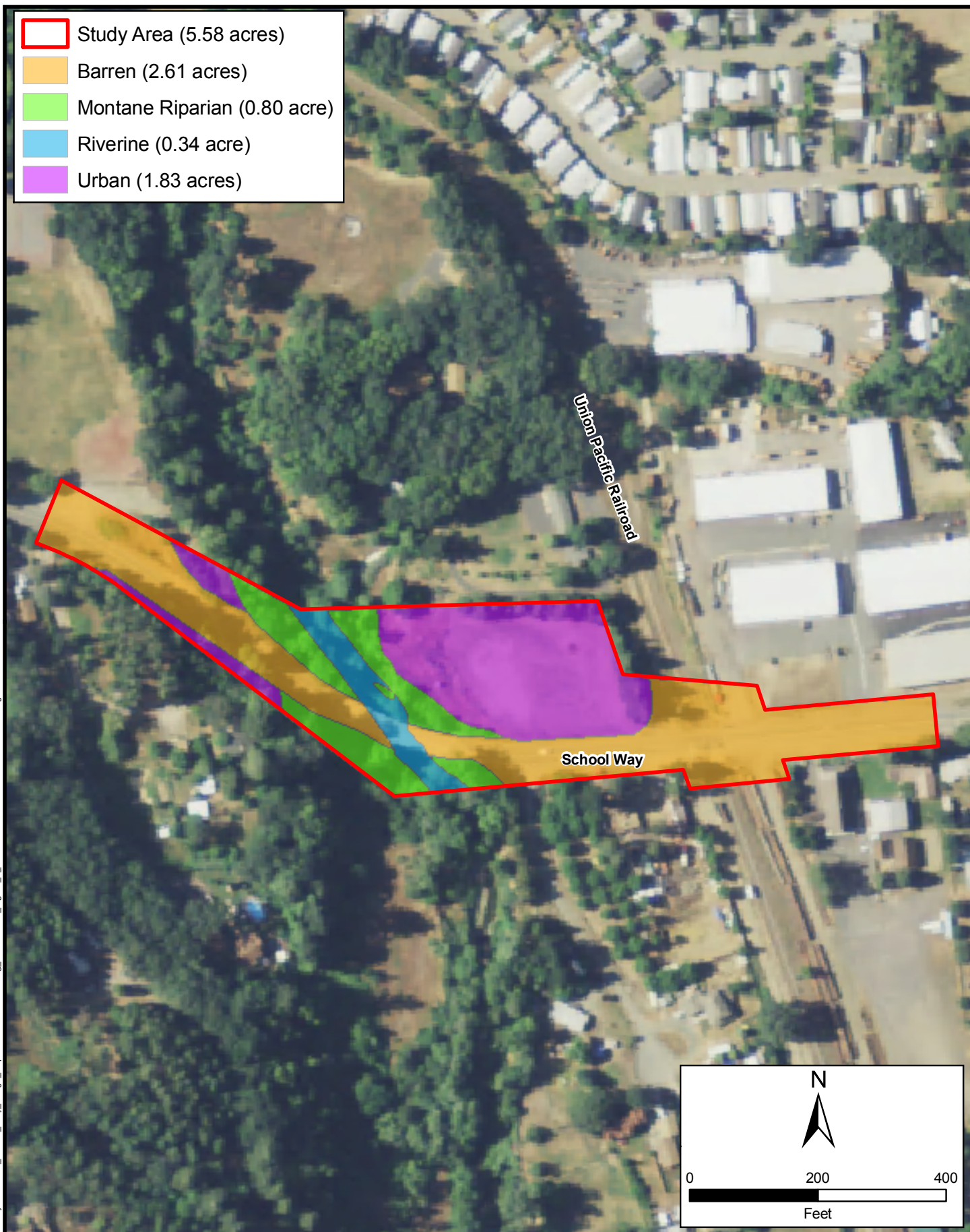
Riverine

Riverine habitat consists of the flowing channel of the West Fork Russian River, and gravel bars and revetment within the ordinary high water mark. The substrate is gravel and sand, and the channel is incised throughout the project area. There is a dense canopy of riparian vegetation adjacent to most of the riverine habitat in the project area.

Urban

Urban habitat includes several disturbed areas within the project area and a fallow field slated to be used as a staging area. The urban habitat is dominated by non-native annual grasses and forbs, including slender wild oats (*Avena barbata*), mustard (*Brassica nigra*), rip gut brome (*Bromus diandrus*), hare barley (*Hordeum murinum* spp. *leporinum*), Italian ryegrass (*Lolium multiflorum*), and winter vetch (*Vicia villosa*). At the west end of the project area, the urban habitat includes a previously abandoned portion of School Way that is dominated by French broom (*Genista monspessulana*).

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3.2 Environmental Impacts and Mitigation Measures

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

Discussion of Impacts

- a) **No Impact.** There are no scenic areas or resources within the project area. The proposed project consists of replacing the existing School Way bridge and roadway approaches with similar structures and would be constructed in a manner consistent with the existing aesthetic.
- b) **Less-than-Significant Impact.** School Way is not designated as a local scenic highway in the County's General Plan. In addition, State Route 101 in the vicinity of the project is not a designated State Scenic Highway (California Department of Transportation 2010c). Although some riparian vegetation (e.g., willows) would be removed to allow for the new bridge alignment upstream of the existing bridge, the effect would not be inconsistent with the existing scenic quality of the site.
- c) **Less-than-Significant Impact.** The proposed project consists of replacing the existing School Way bridge and roadway approaches with similar structures. The proposed project would be constructed in a manner consistent with the existing aesthetic. The proposed project would not introduce any elements that would degrade the existing visual character or quality of the site or surrounding area.
- d) **No Impact.** Construction and operation of the proposed project are not expected to result in increased glare in the project area and no lighting is proposed as part of the proposed project.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| II. AGRICULTURAL 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 Department 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use, or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) **No Impact.** The proposed project area does not contain lands mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Farmland Mapping and Monitoring Program (California Department of Conservation 2008). Soils within the project area are not prime agricultural soils.

- b) ***Less-than-Significant Impact.*** The proposed project area is within or adjacent to an existing roadway. Shifting the roadway alignment and the new bridge slightly to the north of the existing location would require temporary construction and ROW easements on one parcel (APN 163-131-21) zoned as Agricultural. The current use of this parcel appears to be as rural residential and non-agricultural. In its current state, the parcel consists of annual grassland that appears to have been subject to previous disturbance. The parcel would not be split and its use as a construction staging area would be temporary. Project-related impacts would be less than significant. None of the parcels associated with the project site are currently under a Williamson Act contract.
- c) ***No Impact.*** The proposed project would not cause rezoning of forestland, timberland, or timberland zoned timber production.
- d) ***No Impact.*** The proposed project area does not include any forestland.
- e) ***No Impact.*** Construction and operation of the proposed project would not require the conversion of any farmlands to a non-agricultural use or forest lands to non-forest use.

Mitigation Measures

No project-specific mitigation is required under this subject.

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

Discussion of Impacts

- a, b) ***Less-than-Significant Impact.*** Air pollution control would conform to Caltrans Standard Specifications, which state that the contractor shall comply with all applicable air pollution control rules, regulations, ordinances, and statutes.
- c) ***Less than Significant with Mitigation Incorporated.*** Mendocino County is currently a state “non-attainment” area for particulate matter (PM₁₀) (California Air Resources Board 2010). Construction activities associated with the proposed project would result in a relatively minor net increase in PM₁₀. While the amount of PM₁₀ generated by the proposed project would be minor, it would nevertheless be considered a significant impact because of the North Coast Air Quality Management District’s current non-attainment status for particulate matter. In addition to adhering to Caltrans Standard Specifications for air quality, implementation of *Mitigation Measure #1—Air Quality Fugitive Dust Control* will reduce this impact to a less-than-significant level.
- d) ***Less than Significant with Mitigation Incorporated.*** Redwood Valley Elementary School, which was closed in June 2010, is located approximately 300 feet from the existing School Way bridge. Although the volume of air pollutants generated by construction of the proposed project would be minor, project activities would be adhere to Caltrans’ Standard Specifications

for air quality, and *Mitigation Measure #1—Air Quality Fugitive Dust Control* will be implemented reduce this impact to a less-than-significant level.

- e) **No Impact.** The proposed project would not create any objectionable odors.

Mitigation Measures

Mitigation Measure #1—Air Quality/Fugitive Dust and Emission Controls

The County shall include provisions in the construction bid documents that the contractor shall implement fugitive dust and emission controls during construction activities. The fugitive dust and emission controls shall include, but not be limited to, the following elements, as appropriate:

- Equipment and manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. Water shall be applied in a fine spray that does not result in runoff.
- The County or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person shall also respond to any citizen complaints.
- Pursuant to California Vehicle Code (Section 23114) and the North Coast Unified Air Quality Management District (Rule 104, Section 4.2.1)(North Coast Unified Air Quality Management District 2005) trucks hauling soil and other loose material to and from the construction site shall be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Exposed stockpiles of soil and other backfill material shall be watered twice daily when visible dust is being emitted, or have soil binders added.
- Any soils that are removed during construction shall be stored onsite in piles not to exceed 4 feet in height. These spoil piles shall be clearly marked and flagged, and shall be surrounded by silt fencing, straw wattles, or other sediment barriers, or covered unless they are to be used immediately. Spoil piles that will not be returned to use within one construction season shall be revegetated with a non-persistent erosion control mixture.
- Construction vehicles shall minimize idling time and equipment shall be shut off when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485).
- Construction equipment will be maintained in proper working conditions according to manufacturer's specifications. Equipments must be checked daily and determined to be in proper running condition before it is operated.

| | |
|------------------------|------------------------------|
| Timing/Implementation: | During construction |
| Enforcement: | North Coast AQMD |
| Monitoring: | County and/or its contractor |

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

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** A draft Natural Environment Study (NES) report (North State Resources Inc. 2011c), which analyzes the project effects on biological resources, has been submitted to Caltrans for review and approval. No special-status plant species were detected by NSR during its protocol-level survey of the project area in June and July 2010. Suitable habitat does occur for the following special-status fish and wildlife species:
- Central California Coast Distinct Population Segment (DPS) steelhead (*Onchorhynchus mykiss*) – Federally Threatened and Critical Habitat

- California Coastal Evolutionarily Significant Unit (ESU) Chinook salmon (*O. tshawytscha*) – Federally Threatened and Critical Habitat/Essential Fish Habitat
- Central California Coast ESU coho salmon (*O. kisutch*) – Federally Endangered and Critical Habitat
- Northern red-legged frog (*Rana aurora aurora*) – Species of Special Concern
- Foothill yellow-legged frog (*Rana boylei*) – Species of Special Concern
- Western pond turtle (*Actinemys marmorata*) – Species of Special Concern
- Long-eared owl (*Asio otus*) – Species of Special Concern
- White-tailed kite (*Elanus leucurus*) – State Fully Protected
- Yellow warbler (*Dendroica petechia brewsteri*) – Species of Special Concern
- Yellow-breasted chat (*Icteria virens*) – Species of Special Concern
- Pallid bat (*Antrozous pallidus*) – Species of Special Concern
- Western red bat (*Lasiurus blossevillii*) – Species of Special Concern

Fish. A Biological Assessment/Essential Fish Habitat Assessment (BA/EFHA) (North State Resources Inc. 2011b), was prepared in support of formal consultation with NMFS under Section 7 of the Federal Endangered Species Act. The BA/EFHA concluded that the proposed project is likely to adversely affect Central California Coast DPS steelhead and may affect, but is not likely to adversely affect California Coast ESU Chinook salmon and Central California Coast ESU coho salmon. The Central California Coast ESU coho salmon are historically present in the action area; however, this species has been extirpated from the action area. On November 11, 2011, NMFS issued a Biological Opinion that concurs with the findings of the BA/EFHA; the project is not likely to adversely affect designated critical habitat for Central California Coast DPS steelhead, California Coast ESU Chinook salmon or Central California Coast ESU coho salmon or essential fish habitat (EFH) for salmon inhabiting the West Fork Russian River (National Marine Fisheries Service 2011).

Construction activities may result in a temporary loss of rearing and riparian habitat and may result in temporary and localized increases in turbidity and suspended sediment. Seasonal work windows have been designated to avoid the potential impacts to special status salmonids; however, due to the life history of Central California Coast DPS steelhead, potential direct impacts cannot be entirely avoided, but due to conditions within the action area direct impacts would the potential for take is small. Onsite creation of much needed complex pool habitat will occur in conjunction with the demolition and removal of the existing bridge. Additionally, the free-span design with abutments located outside of the Q₁₀₀ flow channel will also minimize the influence the existing structure has on the channel processes in the project area and placement of RSP along the outer boundaries of the base flow channel will limit the potential adverse

impacts of RSP on juvenile salmonids and their habitat. Fish passage under the temporary gravel work platform has been designed and will be constructed according to the NFMS Guidelines for Salmonid Passage at Stream Crossings (NMFS 2001). The work platform and culverts will only be in place during the summer/fall base-flow period for one construction season and will be monitored and maintained as to minimize the potential for any impacts to fish passage.

Based on the life history of California Coastal ESU Chinook salmon, it is expected that the seasonal work windows are sufficient to avoid impacts to California Coastal ESU Chinook salmon and Central California Coast ESU coho salmon.

The project will temporarily affect primary constituent elements of critical habitat and elements of EFH; however, the project is designed to include onsite habitat restoration (instream and riparian) to offset temporary short-term and temporary impacts to physical habitat. The constituent elements of the critical habitat will not be altered or destroyed by proposed activities to the extent that the survival and recovery of California Coastal ESU Chinook salmon and Central California Coast ESU coho would be appreciably reduced.

Water quality protection measures described in *Mitigation Measure #2 – Erosion and Sediment Control*, *Mitigation Measure #3 – Prevention of Accidental Spills of Pollutants*, and *Mitigation Measure #4 – Replacement of Lost Riparian Habitat* will be used to maintain water quality and reduce impacts to fish to a less-than-significant level.

Northern red-legged frog and foothill yellow-legged frog. Field assessments did not detect the presence of northern red-legged frog or foothill yellow-legged frog in the project area, although suitable habitat is present and there are documented occurrences of foothill yellow-legged frog along the West Fork Russian River within five miles of the project area (North State Resources Inc. 2011c). Because suitable habitat is present within the project area, construction activities have the potential to affect either species of frog. Therefore, *Mitigation Measure #5 – Frogs* will reduce this impact to a less-than-significant level. These species may also be affected if construction activities result in degradation of aquatic habitat and water quality due to erosion and sedimentation, accidental fuel leaks, and spills. Mitigation measures #2 and #3 will be used to maintain water quality. In addition, loss of riverine and riparian habitat may have a negative impact on these species; therefore, Mitigation Measure #4 will be used to reduce this impact to a less-than-significant level.

Western pond turtle. Western pond turtle was not observed during field assessments/surveys (North State Resources Inc. 2011c); however, the West Fork Russian River in the project area provides suitable habitat for this species. There is one recorded occurrence of western pond turtle on the West Fork Russian River, 0.8 mile north of the project area. Although unlikely, construction related impacts, especially in-channel work, could result in an adverse effect via direct loss (e.g., due to operation of equipment in or adjacent to the river channel when flowing or standing water is present). The potential for direct loss would occur only during project construction. Implementation of the avoidance and minimization measures will minimize the potential for direct loss. *Mitigation Measure #6 – Western Pond Turtle* will be used to reduce any impacts to turtles to a less-than-significant level. This species may also be affected if

construction activities result in degradation of aquatic habitat and water quality due to erosion and sedimentation, accidental fuel leaks, and spills. Mitigation measures #2 and #3 will be used to maintain water quality. In addition, loss of riverine and riparian habitat may have a negative impact on this species; therefore, Mitigation Measure #4 will be used to reduce this impact to a less-than-significant level.

Long-eared owl and white-tailed kite. Neither long-eared owl nor white-tailed kite were observed during the field assessments/surveys (North State Resources Inc. 2011c); however, riparian habitat along the West Fork Russian River provides potentially nesting habitat for both of these species. Owls and kites may nest in or adjacent to the project area. Thus, construction disturbance during the breeding season could result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or any activities resulting in nest abandonment may adversely affect these species. The proposed project may also result in a small, temporary reduction of foraging and/or roosting habitat for raptors. However, due to the regional abundance of similar habitats, temporary habitat loss is not expected to result in an adverse effect on either species. *Mitigation Measure #7 – Raptors* will be used to reduce any impacts to owls and kites to a less-than-significant level.

Yellow warbler and yellow-breasted chat. Neither yellow warbler nor yellow-breasted chat were observed during the field assessments/surveys (North State Resources Inc. 2011c). However, the riparian habitat along the West Fork Russian River provides suitable breeding habitat for both species. These migratory bird species may nest in or adjacent to the project area. Thus, construction disturbance during the breeding season could result in the loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Loss of fertile eggs or nestlings, or any activities resulting in nest abandonment, may adversely affect these species. The proposed project may also result in a small, temporary reduction of foraging and/or roosting habitat for migratory bird species. However, due to the regional abundance of similar habitats, temporary habitat loss is not expected to result in an adverse effect on migratory birds. *Mitigation Measure #8 – Migratory Birds* will be used to reduce any impacts to yellow warbler and yellow-breasted chat to a less-than-significant level.

Pallid bat and western red bat. Neither pallid bat nor western red bat was observed during the field assessments/surveys (North State Resources Inc. 2011c). The existing School Way bridge does not have any suitable roosting crevices. The riparian habitat along West Fork Russian River may provide suitable night roosting and foraging habitat for pallid bat and western red bat. The closest recorded occurrence for either species is a 1947 observation for pallid bat along Cold Creek about 5 miles east of the project area. Given the absence of mines, caves, rock crevices, and large snags, the project area does not provide suitable breeding habitat (e.g., maternity roosts) for pallid bat. Given the absence of mature stands of cottonwood and sycamore and the rarity of the species in California, the project area does not provide suitable breeding habitat for western red bat. Project implementation is unlikely to have an adverse effect on foraging bats due to the abundance of suitable foraging habitat in the region and the temporary nature of impacts to riparian habitat within the project area. Therefore, the proposed project is not anticipated to result in significant adverse impacts to these species. However, *Mitigation Measure #9 – Bats* will be used to reduce any potential impacts to pallid bats or western red bats to a less-than-significant level.

- b) ***Less than Significant with Mitigation Incorporated.*** Riparian habitat (montane riparian) is considered a sensitive natural community by the Corps, CDFG, and the County, and is present in the project area. Construction of the project would result in temporary impacts to 0.222 acres (224 linear feet) of waters of the United States (0.215 acre (224 linear feet) of intermittent stream; 0.007 acre of riparian wetland). Approximately 0.006 acre of waters of the United States (0.005 acre (73 linear feet) of intermittent stream; 0.001 acre of riparian wetland) would be permanently impacted by construction of the proposed project. However, there would be a net gain of 0.002 acre of intermittent stream resulting from construction of the new bridge since the existing piers that support the current bridge would be removed from the river channel and the new bridge would be clearspan. Mitigation measures for temporary and permanent impacts to riparian wetlands are described under Mitigation Measure #6 in the “Mitigation Measures” section, below. There are no sensitive natural communities in or adjacent to the project area.
- c) ***Less than Significant with Mitigation Incorporated.*** The proposed project would result in permanent and temporary impacts to wetland features under the jurisdiction of the Corps, pursuant to Section 404 of the Clean Water Act. The project would result in the permanent discharge of fill into 0.001 acre of riparian wetland and 0.005 acre (73 linear feet) of intermittent stream. Construction activities and access would result in temporary impacts to 0.007 acre of riparian wetlands and 0.215 acre (224 linear feet) of intermittent stream. Mitigation Measure #4 and *Mitigation Measure #10 – Protection/Replacement of Jurisdictional Waters* will be used to reduce any potential impacts to waters to a less-than-significant level. Mitigation measures #2 and #3 will be used to maintain water quality.
- d) ***Less-than-Significant Impact.*** The project area does not encompass any wildlife nursery sites. However, replacement of the bridge could result in the temporary disruption of fish moving up and downstream. To convey flow beneath the temporary work platform, four 4-foot diameter culverts would be installed to maintain flow through the site. All temporary structures would be installed to meet NMFS Guidelines for Fish Salmonid Passage at Stream Crossings (National Marine Fisheries Service 2001) and Fish and Game Code Section 5901. This temporary disruption would be limited to the in-stream construction phase of the project. Following installation of rock slope protection, the stream channel would be restored to pre-construction contours. Therefore, in-stream movement corridors following completion of the project would not be significantly different from existing conditions.
- e) ***Less than Significant With Mitigation Incorporated.*** The proposed project will comply with the goals and objectives described in the County’s General Plan (Pacific Municipal Consultants 2009), including measures for water quality and biological resources protection. The proposed project will also comply with the County’s oak tree retention/replacement provisions and riparian vegetation provisions specified in the General Plan, which include adhering to the County’s grading ordinance and protecting and retaining natural vegetation to the extent possible. Construction of the new bridge will result in the loss of riparian vegetation, which may be inconsistent with riparian vegetation protection guidelines in the Land Use Element in the General Plan (County of Mendocino 2009). Mitigation Measure #4 will be used to reduce any potential impacts to vegetation to a less-than-significant level.

- f) **No Impact.** Currently, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved habitat conservation plans that cover the project area.

Mitigation Measures

Mitigation Measure #2—Erosion and Sediment Control

Type D erosion control measures (i.e., hydroseeding) or hand seeding and mulching methods shall be implemented during construction of the proposed project in non-riparian upland areas. These measures shall conform to the provisions in Section 20-3 of the Caltrans Standard Specifications and the special provisions included in the contract for the project.

Erosion control work shall consist of one application of erosion control materials to embankment slopes, excavation slopes, and other areas with non-riparian uplands designated by the project engineer. These materials shall consist of fiber, seed, mulch, commercial fertilizer, stabilizing emulsion, and water. These materials shall conform to Section 20-2 of the Caltrans Standard Specifications and the specifications discussed below. Additional erosion control measures that shall be implemented by the County include:

- Any construction activities proposed below the ordinary high water line of the West Fork Russian River or within any delineated wetland or other surface water shall be restricted to the dry season (i.e., June 15 – October 15). Construction in upland areas may start on May 15 and extend through November 15.
- Activities that increase the erosion potential within the project area shall be restricted to the relatively dry summer and early fall period (approximately May 15 to October 15) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to the West Fork Russian River and other surface water features. If construction activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until permanent erosion control measures are in place (e.g., successful revegetation).
- Areas where vegetation needs to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by the County. The limits of ground disturbance will be staked and flagged or fenced in the field.
- Within 10 days of completion of construction, weed-free mulch shall be applied to disturbed areas in order to reduce the potential for short-term erosion. Prior to a rain event or when there is greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch, tarps, or geotextile fabrics shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.
- Suitable Best Management Practices (BMP), such as silt fences, straw wattles, or catch basins, shall be placed below all construction activities at the edge of surface water features

to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.

- If spoil sites are used, they shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season (or no later than October 15) and will be monitored and maintained in good working condition until vegetation becomes established within the disturbed areas.
- Any new or previously excavated gravel material placed in the channel shall be washed at least once and have a cleanliness value of 85 or higher based on Caltrans Test No. 227.

| | |
|------------------------|--|
| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County and/or its contractor |

Mitigation Measure #3—Prevention of Accidental Spills of Pollutants

Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources in the project area:

- Fueling construction equipment shall be done at a fixed fueling station to reduce the area exposed to the potential for fuel spills.
- Secondary containment, such as a drain pan or dropcloth, shall be used to catch spills or leaks when removing or changing fluids.
- Spill containment materials shall be kept onsite at all times to contain any accidental spill.
- Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.
- Onsite vehicles and equipment shall be regularly inspected for leaks and repaired immediately.
- If vehicle and equipment maintenance must occur onsite, it shall be done in designated areas, located away from drainage courses, to prevent the run-on of stormwater and the run-off of spills.
- Equipment and materials shall be stored at least 50 feet away from surface water features, including the West Fork Russian River.
- County is responsible for compliance with applicable federal, state, or local laws or ordinances and shall obtain authorization from all applicable regulatory agencies.

| | |
|------------------------|--------------------------------|
| Timing/Implementation: | During construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County and/or its contractor |

Mitigation Measure #4—Replacement of Lost Riparian Habitat

The following measures shall be implemented to reduce potential impacts to riparian habitat in the project area:

- The width of the construction disturbance zone within the riparian habitat shall be minimized through careful pre-construction planning.
- Exclusionary fencing shall be installed along the boundaries of all riparian areas to be avoided to ensure that impacts to riparian vegetation outside of the construction area are minimized.
- Riparian habitat areas temporarily disturbed shall be replanted using riparian species that have been recorded along the West Fork Russian River in the project vicinity, including willow, white alder, and Fremont cottonwood.
- Onsite creation/restoration shall occur in areas disturbed during project construction and the amount of habitat created/restored shall be at a 3:1 ratio of new plantings per large (6-inch diameter at breast height or greater) woody plant removed. This replanting ratio will help ensure successful establishment of at least one vigorous plant for each plant removed.
- Plant spacing intervals will be determined as appropriate based on site conditions following construction.
- Non-native tree species removed during project construction will be replaced with native riparian species.

| | |
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| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #5 - Frogs

- Because northern red-legged and foothill yellow-legged frogs may move into and out of the project area at any time, a pre-construction survey for the species is necessary to confirm their status (presence/absence) on the site immediately prior to the onset of project construction. Therefore, a qualified biologist shall conduct a minimum of one survey of the project area for these frog species. The survey shall be conducted a maximum of one week prior to construction. If either of these frog species is found within a construction impact zone, the biologist shall move it to a safe location having similar habitat.
- If a northern red-legged or foothill yellow-legged frog is encountered during construction, activities in the vicinity shall cease until appropriate avoidance measures are implemented or it is determined that the frog will not be harmed. Any frogs encountered during construction

shall be allowed to move away on their own. Any trapped, injured, or killed frogs shall be reported immediately to CDFG.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #6—Western Pond Turtle

The proposed project has the potential to result in adverse impacts on western pond turtles as identified below:

- Because turtles may move into and out of the project site at any time, a pre-construction survey for the species is necessary to confirm its status (presence/absence) on the site immediately prior to the onset of project construction. Therefore, a qualified biologist shall conduct a minimum of one survey of the project site for pond turtles and their nests. The survey shall be conducted a maximum of one week prior to construction. If a pond turtle is found within a construction impact zone, the biologist shall move it to a safe location within similar habitat. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist.
- If a western pond turtle is encountered during construction, activities in the vicinity shall cease until appropriate corrective measures have been implemented or it has been determined that the turtle will not be harmed. Any turtles encountered during construction shall be allowed to move away on their own. Any trapped, injured, or killed turtles shall be reported immediately to CDFG.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #7—Raptors

- Pre-construction surveys for nesting raptors shall be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. At least one survey shall be conducted no more than 15 days prior to the initiation of construction activities. During this survey, the biologist will inspect all trees immediately adjacent to the impact areas for raptor nests. If an active raptor nest is found within 250 feet of the construction area, the biologist, in consultation with the CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.
- If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed as a result of the project shall be removed before the onset of the nesting season (February 15 through September 30), if practicable. This will discourage

nesting in areas that would be directly impacted by the proposed project and substantially decrease the likelihood of direct impacts.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #8—Migratory Birds

- Grading and other construction activities shall be scheduled to avoid the nesting season to the extent possible. The nesting season for migratory bird species that occur in the project vicinity extends from mid-February through September. If construction occurs outside of the breeding season, no further mitigation is necessary. If the breeding season cannot be completely avoided, the following mitigations shall be implemented:
 - A qualified biologist shall conduct a minimum of one pre-construction survey for yellow warblers and yellow-breasted chats within the project area and a 250-foot buffer around the project area. The survey shall be conducted no more than 15 days prior to the initiation of construction in any given area. The pre-construction survey should be used to ensure that no nests of these species within or immediately adjacent to the project area would be disturbed during project implementation. If an active nest is found, a qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest.
 - If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed as a result of the project shall be removed by hand before the onset of the nesting season (February 15 through September 30), if practicable. This will discourage nesting in areas that would be directly impacted by the proposed project and substantially decrease the likelihood of direct impacts.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #9—Bats

- To the extent practicable, the removal of any large trees shall occur outside of the breeding season of pallid bat and western red bat. For the purposes of implementation of this measure, the breeding season is considered to be from April 1 through August 15th.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

Mitigation Measure #10 – Waters of the United States

To the extent practicable, the discharge of dredged or fill material into waters of the United States, including wetlands, shall be avoided (this also includes waters not subject to Corps jurisdiction, but

subject to RWQCB jurisdiction). However, complete avoidance is not feasible, thus the following measures shall be implemented:

- Prior to any discharge of dredged or fill material into Corps jurisdictional waters, authorization under a Nationwide Permit shall be obtained from the Corps. For any features determined not to be subject to Corps jurisdiction during the verification process, authorization to discharge fill shall be obtained from the RWQCB. For fill requiring a Corps permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral stream, notification of streambed alteration shall be submitted to the CDFG; and, if required, a Streambed Alteration Agreement shall be obtained from CDFG.
- Construction activities that will affect water of the United States shall be conducted during the dry season to minimize erosion.
- Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g., silt fences, straw bales).
- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., Corps, RWQCB, and CDFG) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented.

| | |
|------------------------|--|
| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County |

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| V. CULTURAL RESOURCES — Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a) **No Impact.** The School Way Bridge (No. 10C-0084) Replacement Project, Redwood Valley, Mendocino County, California, Archaeological Survey Report (North State Resources Inc. 2011a) states that no historic properties were identified in the proposed project area that meet the significance criteria of the National Register of Historic Places. The bridge (10C-0084) is listed as a Category 5 bridge by Caltrans and as such does not meet the criteria for listing on the National Register of Historic Places. There is a low potential for previously unknown/unrecorded historic properties to be located in the project area.
- b) **Less-than-Significant Impact.** Prehistoric isolated artifacts have been identified in archaeological studies covering adjacent lands, and tribal outreach conducted for the proposed project, indicate that prehistoric artifacts have been found previously on nearby stream terraces (North State Resources Inc. 2011a). However, the results of the archival research, Native American outreach, and pedestrian archaeological survey (North State Resources Inc. 2011a) did not identify the presence of significant historic properties meeting the significance criteria of the National Register of Historic Places (e.g., sites, buildings, structures, objects, or districts in excess of 50 years of age with significant associations and integrity). The past disturbance of the landscape in the proposed project area as a result of prior road construction and land development have likely destroyed any intact archaeological sites that may have occurred within the project site. Implementation of the proposed project will have a less than significant impact to an archaeological resource.
- c) **No Impact.** The project site is not known to support any unique paleontological resources or unique geologic features. The soil profiles and geologic map for the undertaking area suggest that alluvial and weathering processes have shaped the region for a considerable period of time. The soils in the undertaking area are derived from the weathering processes on the sedimentary rock laid down millions of years ago. The soils found in terraces along stream channels have

considerable depths, and consequently any archaeological resources are likely buried, becoming visible only in cut banks or on scoured ground surfaces.

- d) ***Less than Significant with Mitigation Incorporated.*** Although no impacts to known cultural resources are anticipated, currently undetected cultural or paleontological resources or evidence of human remains could be exposed during project excavation activities. This impact would be a significant impact. *Mitigation Measure #11 – Cultural Resources* and *Mitigation Measure #12 – Human Remains* will be used to reduce any potential impacts to cultural resources to a less-than-significant level.

Mitigation Measures

Mitigation Measure #11—Cultural Resources

- In the event archaeological deposits—other than those determined to lack eligibility for listing in the National Register of Historic Places—are discovered during project activities, all work in the immediate vicinity of the discovery shall be stopped immediately and the Mendocino County Department of Transportation shall be notified. An archaeologist meeting the Secretary of Interior’s Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be retained to evaluate the find and recommend appropriate conservation measures. The conservation measures shall be implemented prior to re-initiation of activities in the immediate vicinity of the discovery.

| | |
|------------------------|--|
| Timing/Implementation: | During construction |
| Enforcement: | Native American Heritage Commission and County |
| Monitoring: | County and/or its contractor |

Mitigation Measure #12—Human Remains

- If human remains are discovered during project activities, all activities in the vicinity of the find shall be suspended and the Mendocino County Sheriff–Coroner shall be notified. If the coroner determines that the remains may be those of a Native American, the coroner shall contact the Native American Heritage Commission. Treatment of the remains shall be conducted in accordance with the direction of the County Coroner and/or the Native American Heritage Commission, as appropriate.

| | |
|------------------------|--|
| Timing/Implementation: | During construction |
| Enforcement: | Native American Heritage Commission and County |
| Monitoring: | County and/or its contractor |

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| VI. GEOLOGY AND SOILS — Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) i) **No Impact.** The project site is not located within an Alquist-Priolo Earthquake Fault Zone. Since no faults pass through the project site, construction of the proposed project would not result in the rupture of any known fault. The nearest mapped fault is the Maacama Fault located approximately 1.6 miles west of the project area (County of Mendocino 1983). This is an active fault.
- ii) **Less-than-Significant Impact.** A preliminary foundation report (Taber Consultants 2002; Quincy Engineering Inc. 2003) prepared for the proposed project concluded that although there are no faults within the immediate project area, its proximity to the Maacama Fault (a distance of approximately 1.6 miles west) would require (by Caltrans) that Seismic Design Criteria

response curves be increased. Further, the report found the steep bank slopes in the river channel—the result of long term channel degradation—to be susceptible to local bank failure and slope distortion in the event of strong ground shaking. To ensure that potential seismically induced hazards do not affect the proposed replacement bridge, Caltrans seismic design parameters, including staged increases in spectral acceleration, are incorporated into the project design.

iii) ***Less-than-Significant Impact.*** Soils in the lower few feet of the river channel within the project area were found to have the potential to become liquid due to seepage observed in the bank (Taber Consultants 2002). However, further field investigation determined this seepage is likely due to seasonal runoff and not a sign of a free-water saturation condition typically required for seismic liquefaction. In general, the gradation of soil particle size within soil layers appears sufficient to discourage seismic liquefaction. The susceptible soils are relatively thin (only a few feet thick), which would likely cause only minor localized embankment distortion (Jurrens, pers. comm. 2011). The preliminary foundation report concluded that the potential for liquefaction is not a significant consideration.

iv) ***Less-than-Significant Impact.*** Landslides are not known to occur at the project site (Taber Consultants 2002). Channel banks are relatively stable under existing conditions, but are considered to be susceptible to distortion in the event of earthquake or continued channel erosion. Rock slope protection would be used to stabilize the banks where the abutments would be placed.

- b) ***Less than Significant with Mitigation Incorporated.*** The potential for erosion in the project area ranges from moderate to severe, although the soils are well-suited to the mechanical site preparation activities that would occur under the proposed project (Natural Resources Conservation Service 2011). Ground-disturbing construction activities would expose these soils and make them susceptible to erosion in the event of rain; however, once soils are surfaced or overlain with RSP, this potential for erosion would be significantly reduced. Mitigation Measure #2 has been incorporated into the project to minimize erosion pre- and post-construction, and reduces this impact to a less-than-significant level.
- c, d) ***Less-than-Significant Impact.*** The project site is underlain by metamorphic rock considered capable of supporting heavy, concentrated pile foundation loads (Taber Consultants 2009). Soils in the project area are generally stable and well-suited to mechanical site preparation activities (Taber Consultants 2002; Natural Resources Conservation Service 2011). Onsite soils are not expansive (Natural Resources Conservation Service 2011) and have a low shrink-swell potential. The bridge footings would be founded on over-consolidated clays and very dense sands and gravels, and the load factor design would consider bearing capacities. Construction of footings would be consistent with Caltrans Design Specifications (including safety factors of 3 for footings and 2 for H-piles).
- e) ***No Impact.*** The proposed project does not involve septic or wastewater systems.

Mitigation Measures

Implement *Mitigation Measure #2 - Soil Erosion and Sedimentation Control* to prevent degradation of water quality.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- (a) ***Less than Significant with Mitigation Incorporated.*** Construction of the proposed bridge replacement project would generate greenhouse gas (GHG) emissions. In order to determine the significance of the impact, a “carbon footprint” was estimated based on the proposed project’s generation of GHG emissions, primarily carbon dioxide (CO₂). Online calculator tools² specifically developed to estimate GHG emissions resulting from construction projects were used to generate an estimate of the carbon footprint for the proposed project. For purposes of the proposed project, the following constants for combustible fuel, area of vegetation disturbance, and project duration were used:
- an average of 300 gallons per day of diesel fuel would be used by heavy construction equipment³;
 - onsite, mobile construction equipment³ would travel an average of approximately 15 miles per day as the vehicles work throughout the construction site;
 - offsite construction equipment, including worker’s personal vehicles used to commute to the construction site (assuming five (5) personal diesel pick-up roundtrips) and equipment/materials haul trucks (assuming five (5) heavy duty diesel truck roundtrips) from Ukiah (16 miles roundtrip) would travel a total of approximately 160 miles per day;

² The mobile combustion CO₂ Emissions Calculation Tool was used to calculate GHG emissions for combustible fuel (Greenhouse Gas Protocol Initiative 2009), and the Construction Carbon Calculator (Build Carbon Neutral 2011) was used to calculate GHG emissions for vegetation loss..

³ The amount of fuel used by the project is based on operating three (3) pieces of heavy equipment at any given time (e.g., a grader, an excavator, a large haul/dump truck, crane) that each have an average fuel consumption of 100 gallons per day.

- onsite miscellaneous combustion engine equipment, including generators would operate 8 hours per day;
- approximately 0.25 acre of montane riparian vegetation could be removed at the site as a result of excavation and grading activities; and
- project construction would require approximately 120 days to complete.

Based on the above values, the proposed project would generate approximately 19 metric tons of GHG emissions (primarily CO₂) from construction equipment during project construction. The volume of vegetation (montane riparian) that would be removed as a result of project implementation would generate approximately 25-metric tons of CO₂ emissions as a result of its absence. However, revegetation included in the installation of the RSP would create a net offset of CO₂ emissions of approximately -46-metric ton of CO₂ over a five to ten year period. Upon completion of the new bridge and roadway approaches, there would be no change from the existing volume of GHG emissions generated by vehicle use of School Way.

While the project's GHG emissions would be measurable, they would not necessarily be significant and would be limited to the project construction period. Plantings of riparian trees and shrubs in the interstices of the RSP would ultimately offset almost twice as much CO₂ as would be generated by project construction. Measures included in *Mitigation Measure #13 – Greenhouse Gas Emissions* have been incorporated into the project design and/or would be used during construction to ensure that project related impacts would remain less than significant (California Attorney General's Office 2010).

- (b) ***Less-than-Significant Impact.*** The North Coast Unified Air Quality Management District has not adopted a plan, policy, or regulation for reducing GHG emissions. However, the State of California has adopted several regulations related to GHG emissions reduction. These include efforts to reduce tailpipe emissions and diesel exhaust produced by fuel-combustion engines. Project operations would adhere to statewide efforts aimed at minimizing GHG emissions.

Mitigation Measures

Mitigation Measure #13–Greenhouse Gas Emissions

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.
- Meet an identified transportation-related benchmark.
- Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.
- Create walking paths directed to the location of schools, parks, and other destination points.

- Protect existing trees to the extent possible and encourage the planting of new trees.

| | |
|------------------------|----------------------------------|
| Timing/Implementation: | Prior to and during construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** Construction and operation of the proposed project would not generate any hazardous materials. Operation of the proposed project does not involve the use or storage of any hazardous materials. Although construction would not generate any hazardous materials, a potential hazard to the public and the environment would be posed by the use of diesel or gasoline powered construction equipment

(trucks, excavators, etc.) and lubricants such as oil and hydraulic fluids. The potential for such a hazard would be temporary and mitigable since equipment would be routinely maintained and inspected to avoid leaks, and is similar to vehicles operating on nearby roads. Best management practices described in *Mitigation Measure #3—Prevention of Accidental Spills of Pollutants* would be used to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) on vegetation and aquatic habitat resources within the project area. Best management practices included in Mitigation Measure #3 will be provided in the project design construction specifications. In the event of an accidental spill, implementation of this measure will reduce the potential hazard to the public and the environment to a less-than-significant level.

- b) **No Impact.** There is no reasonably foreseeable potential for the proposed project to pose a hazardous threat to the public or the environment. No hazardous materials are currently stored, or proposed for use or storage, in the project area. The bridge does not appear to contain lead-based paint or asbestos.
- c) **No Impact.** The Redwood Valley Elementary School is located immediately adjacent to the northwest side of the project area. However, the school was closed in June 2010 for an indefinite period. Therefore, the proposed project would not pose a hazard to an occupied school.
- d) **No Impact.** An Environmental Site Assessment report (Lawrence and Associates 2010) found no evidence of significant environmental conditions with the exception of a petroleum-based stain in a driveway located near the southwest portion of the project area. A search of the State Department of Toxic Substances Control (DTSC) EnviroStar database (California Department of Toxic Substances Control 2007) and the State Regional Water Quality Control Board's GeoTracker database (State Water Resources Control Board 2008) was conducted. There is no record of any gas stations, auto wrecking yards, landfills, or storage tanks within the project area. However, two records of contaminated sites in the project vicinity were included in the GeoTracker database: a diesel spill at the Redwood Valley Elementary School in 1990 and a gasoline spill at the Redwood Valley Shopping Center in 1997 (State Water Resources Control Board 2008). Both sites are currently under assessment and are periodically monitored. No other hazardous material sites are located within the project area or immediate vicinity. The project area is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- e, f) **No Impact.** The proposed project is not located near any public or private airstrip.
- g) **Less-than-Significant Impact.** During construction of the replacement bridge, the existing bridge would remain open to allow two-way vehicular access through the project area. Although temporary, short duration disruptions to normal traffic operations would occur during construction; the effect would be less than significant. The proposed project is not anticipated to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because vehicular access would be maintained.

- h) ***Less than Significant with Mitigation Incorporated.*** The project area is aligned along School Way, one of the primary roads in the community of Redwood Valley. The stretch of School Way through the project area is lined with patches of annual grassland interspersed throughout montane riparian, barren, and urban habitat. Although the fire hazard potential of lands in the community has not been classified (County of Mendocino 2007) the use of construction equipment in and around vegetated areas increases the potential for wildfire ignition. *Mitigation Measure #14 - Wildfire Potential* will be implemented to reduce the risk of wildfire associated with project construction to a less-than-significant level. Operation of the project would have no effect on wildfire potential.

Mitigation Measures

Implement *Mitigation Measure #3 - Prevention of Accidental Spills of Pollutants* to prevent degradation of the project area environment.

Mitigation Measure #14–Wildfire Potential

- Per the requirements of Public Resources Code 4442, the County shall include a note on all construction plans that internal combustion engines shall be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

| | |
|------------------------|------------------------------|
| Timing/Implementation: | Prior to construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

| | <i>Potentially Significant Impact</i> | <i>Less than Significant with Mitigation Incorporated</i> | <i>Less than Significant Impact</i> | <i>No Impact</i> |
|--|---|---|---|-------------------------------------|
| XI. HYDROLOGY AND WATER QUALITY — Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j) Inundation of seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) ***Less-than-Significant Impact.*** Construction and operation of the proposed project would not violate any water quality standards or waste discharge requirements set forth by the North Coast RWQCB in its Water Quality Control Plan for the North Coast region (North Coast Regional Water Quality Control Board 2007). Water pollution control measures have been incorporated into the project design and are required according to Caltrans Standard Specifications (Section 7-1.01G). Additionally, project activities would comply with the requirements set forth in a 401 Water Quality Certification, which is required by the RWQCB prior to project implementation.
- b) ***No Impact.*** Construction and operation of the proposed project would have no effect on groundwater supplies. There would be no net change in local aquifers or the local groundwater table as a result of the project.
- c) ***Less-than-Significant Impact.*** Construction activities associated with the proposed project are not anticipated to alter the existing drainage pattern of the site or area in a way that would result in downstream erosion and/or sedimentation. Rock slope protection would be used in conjunction with a 60-foot long retaining wall to stabilize the steep river bank slopes and roadway fill needed for project construction. Soil would be graded into the interstices between rocks, which would then be planted with willow cuttings and other riparian hardwood trees (e.g., cottonwood), thus adding to the long-term stability of the slopes. Installation of RSP would require that water in the low-flow channel be diverted to the west side of the project site and a keyway trench be dug. Culverts overlain with clean washed gravel would be installed in the river channel approximately 25-feet upstream of the proposed bridge and 25-feet downstream of the existing bridge. Water would be diverted into the culverts using clean gravel and plastic sheeting. A temporary work area (i.e., gravel pad) would be created in the channel to allow for the construction of falsework for the new bridge structure and to serve as a place to lay down the old bridge during its removal.
- d) ***Less-than-Significant Impact.*** The proposed project would not substantially alter the existing drainage pattern of the project site. The Design Hydraulic Study (Quincy Engineering Inc. 2003) prepared for the proposed project concludes that implementation of the project would not increase the flood potential in the West Fork Russian River channel, rather the proposed project would actually result in a minor decrease in water surface elevations through the project area during flood events.
- e) ***Less-than-Significant Impact.*** The larger, wider new bridge structure and extended roadway approaches would increase the amount of impervious surface in the project area. The additional surface area would result in a slight, but less-than-significant, increase in storm water runoff and the potential for polluted runoff (e.g., lubricants). The existing bridge structure and roadway approaches would be removed and their footprints would be restored to natural conditions.
- f) ***Less than Significant with Mitigation Incorporated.*** Construction and operation of the proposed project would involve construction activities and the use of hazardous materials (i.e.,

petroleum-based fuels and lubricants) in and adjacent to waterways. Construction activities could also temporarily increase the potential for sediment to enter the river. These project activities could degrade water quality in the West Fork Russian River. It is anticipated that roadway and bridge deck drainage for this project would be diverted away from the approach fills and directly into the natural drainage swales within the 100-year flood plain of the West Fork Russian River. Once the water is within the drainage swales, it is expected to infiltrate into the ground following typical rainfall events. The following resource protection measures will be used during construction to reduce this potential impact to a less-than-significant level:

- Water pollution control measures have been incorporated into the project description and will be included in the construction contract pursuant to Caltrans Standard Specifications (Section 7- 1.01G).
 - Erosion control measures will be implemented during construction of the proposed project in accordance with *Mitigation Measure #2—Erosion and Sediment Control*.
 - Construction specifications will include *Mitigation Measure #3—Prevention of Accidental Spills of Pollutants* to reduce potential impacts associated with hazardous materials.
 - In-channel construction work and operation of the new bridge will be conducted in accordance with all measures contained in permits or associated with agency approvals.
- g) **No Impact.** The proposed project does not include the construction of new housing within a flood hazard area.
- h) **Less-than-Significant Impact.** The hydraulic study conducted for the proposed project concludes that the replacement bridge project is not expected to produce an increase in the water surface elevations during a 100-year flood event; rather it would actually result in a slightly lower base flood elevation than what currently exists. The length, height, and structural design of the proposed bridge meet the *Caltrans Bridge Design Specifications* for hydraulic capacity requirements and scour depth. The new bridge and the approach embankments would not encroach into the low-flow channel of the West Fork Russian River.

Project materials that would be placed in the 100-year floodplain of the West Fork Russian River include temporary false work, a temporary water crossing, and most RSP (with the exception of approximately 0.006 acre of RSP that would be within the ordinary high water mark of the east bank). Above the low-flow channel, scour protection consisting of ¼-ton of RSP measuring 10-feet wide and stretching 50-feet upstream and 50-feet downstream of the new bridge structure centerline would be placed on both river banks. Bridge abutments, including footings, would be outside of the ordinary high water mark, but within the 100-year floodplain. Abutments would be subjected to high seasonal flows; therefore, scour protection in the form of RSP would be required to avoid undercutting.

Temporary materials and structures would be in place during the instream construction window (June 15 through October 15) and would be removed following construction and prior to

October 15th. The area disturbed by the temporary water crossing and gravel construction pad would be restored to pre-construction contours. Falsework—temporary bridge structure support—would be placed in the 100-year floodplain of the West Fork Russian River during construction and is expected to consist of post and beams founded on wooden pads. All falsework materials would be removed after bridge construction is complete (prior to October 15).

- i) ***Less-than-Significant Impact.*** The new bridge would be built in the 100-year floodplain of the West Fork Russian River (Federal Emergency Management Agency 1983). Hydraulic Design Criteria prescribed in Caltrans' *Local Procedures Manual* (California Department of Transportation 2009) have been incorporated into the project design to ensure that the new structure would be capable of conveying the base or 100-year flood. The new bridge would be designed to avoid problems stemming from the transport of woody debris in the channel during periods of high flow by avoiding the use of piers and by providing the minimum drift clearance recommended by Caltrans and FHWA. Temporary falsework clearance is anticipated to be adequate to pass typical river flows during the construction season.
- j) ***No Impact.*** The project site is not at risk of seiche, tsunami, or mudflow.

Mitigation Measures

Implement *Mitigation Measure #2 - Soil Erosion and Sedimentation Control* and *Mitigation Measure #3 - Prevention of Accidental Spills* to prevent degradation of water quality.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| X. LAND USE AND PLANNING — Would the project: | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) ***Less-than-Significant Impact.*** The proposed bridge would replace the existing bridge that connects the community of Redwood Valley. It would not divide the community. While there may be minor delays to traffic passing along School Way during construction, the effect on the community would be temporary and less than significant. The primary purpose of the proposed project is to replace a bridge that has been designated as functionally and structurally obsolete by Caltrans with a safe crossing over the West Fork Russian River.
- b) ***No Impact.*** Construction of the proposed project is consistent with the Mendocino County General Plan, Development Element (County of Mendocino 2009). The General Plan includes several Development Goals with which the proposed project would be directly compatible. These include:
- **Goal DE-1 (Land Use):** Land use patterns that maintain the rural character of Mendocino County, preserve its natural resources, and recognize the constraints of the land and the limited availability of infrastructure and public services.
 - **Goal DE-4 (Land Use):** Functional, safe, and attractive communities compatible with the General Plan and community objectives, infrastructure availability, and environmental safety, as well as economic and other opportunities and constraints.
 - **Goal DE-5 (Noise):** A county in which existing residential and other sensitive uses are protected from excessive noise and in which noise-intensive uses are protected from encroachment by residential and other noise-sensitive uses.
 - **Goal DE-7 (Infrastructure):** Basic infrastructure—roadways, water and sewer service, schools, libraries, internet access, etc.—sufficient to support existing and future development, in place when needed, and fully funded both initially and on an ongoing basis.

- **Goal DE-8 (Transportation):** A balanced and coordinated transportation system that:
 - Is an integrated and attractive part of each community.
 - Is functional, safe and pleasant to use, and supports emergency services.
 - Provides a choice of modes accessing and connecting places frequented in daily life.
 - Promotes compact development and infrastructure efficiencies.
 - Is consistent with principles of sustainability and conservation of resources.
 - Is not solely dependent on the continuation of fossil fuel resources.
 - Can be maintained, used, and justified if available energy sources change during the duration of the General Plan.
- **Goal DE-9 (Road Systems):** A countywide road system that provides safe, efficient and attractive access, coordinated with interstate, state, local and area-wide systems.
- **Goal DE-10 (Pedestrian & Bicycle):** Functional, safe and attractive pedestrian and bicycle systems coordinated with regional and local transportation plans and other transportation modes.

Replacement of the existing bridge structure would ensure safe and efficient movement of people and goods, meets environmental and circulation objectives, and implements funding strategies for construction, improvement, and maintenance of an existing roadway in Mendocino County. Project design and mitigation measures address local, state, and federal safety improvements to existing county roads.

- c) **No Impact.** Currently, there are no adopted HCPs, NCCPs, or other approved habitat conservation plans that cover the project area.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| XI. MINERAL RESOURCES — Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource classified MRZ-2 by the State Geologist that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) **No Impact.** The project area has not been mapped by the State Division of Mines and Geology (California Department of Conservation 2008). Existing gravel mining activities do not occur at this location. It is unlikely that the project site would be considered an important aggregate resource. The closest mining operation (Northern Aggregates Incorporated, Harris Quarry) is located approximately 15 miles northwest of the project area near Willits.
- b) **No Impact.** No locally important mineral resource recovery sites are located within the project site.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| XII. NOISE — Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use compatibility plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) ***Less than Significant with Mitigation Incorporated.*** During construction, a minor increase in ambient noise levels is anticipated at the project activity site. However, construction-related noise would be temporary and would occur only during daylight hours (typically 7:00 a.m. to 7:00 p.m., Monday through Saturday). Noise generated by construction and operation of the project from sources such as heavy equipment, stationary pumps, and truck traffic are common to the existing daily operations of traffic using School Way. Abutments would be constructed from cast-in-place concrete founded on driven piles. Pile-driving, while temporary, would result in excessive noise. *Mitigation Measure #15 – Construction Noise* will be used to reduce project-related noise impacts to a less-than-significant level. Operation of the new bridge would not generate noise above existing levels.
- b) ***Less than Significant with Mitigation Incorporated.*** The proposed project includes pile driving. Construction-related ground vibration resulting from pile driving would be temporary and localized, and would occur only during daylight hours (typically 7:00 a.m. to 7:00 p.m., Monday through Saturday). There is the potential for persons in the project vicinity to be

exposed to some ground vibration. Mitigation Measure #15 will be used to reduce impacts associated with pile driving to a less-than-significant level. The project does not involve the use of explosives.

- c) ***Less than Significant with Mitigation Incorporated.*** Construction and operation of the project would not result in a permanent (on-going) increase in ambient noise because traffic levels would not increase as a result of the project.
- d) ***Less than Significant with Mitigation Incorporated.*** Heavy equipment used during construction would contribute to short duration increases in ambient noise levels in the project vicinity that may be noticeable at nearby homes, but restricting construction to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday, as specified by Mitigation Measure #15, would make this a less-than-significant impact.
- e, f) ***No Impact.*** The proposed project is not located in the vicinity of an airport or landing strip.

Mitigation Measures

Mitigation Measure #15–Construction Noise

The County shall include in the construction specifications the following measures to reduce potential impacts associated with construction noise to a less-than-significant level:

- Construction shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday.
- Pile driving can create loud percussive sounds and ground-borne vibration within 100 feet of the operation. Standard mitigation is to pre-drill pile bores to minimize the number of blows needed. Residents should be notified when pile driving will occur, and work should only occur in the daytime.
- Each internal combustion engine used for any purposed on the job site shall be equipped with a muffler of a type recommended by the manufacturer.

| | |
|------------------------|------------------------------|
| Timing/Implementation: | During construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------------|--|------------------------------------|-------------------------------------|
| XIII. POPULATION AND HOUSING — Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

- a) **No Impact.** Replacement of the existing School Way bridge structure would have no effect on population or housing in the Redwood Valley area. It would not increase traffic capacity or extend road access beyond what is available without the project. It would improve traffic safety on School Way where it crosses the West Fork Russian River.
- b) **No Impact.** Existing housing within the community of Redwood Valley would not be displaced by the project and no replacement housing would be required.
- c) **No Impact.** No people would be displaced as a result of the proposed project and no replacement housing would be required.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|--------------------------|
| XIV. PUBLIC SERVICES — Would the project: | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impact

- a) ***Less-than-Significant Impact.*** The proposed project would have a less-than-significant effect on public resources, including fire protection, police protection, schools, parks, and other public facilities. The proposed bridge would provide an improved, safer road and bridge across the West Fork Russian River. During construction of the replacement bridge, traffic would be routed over the existing bridge, which would remain operational pending completion of the new bridge. No adverse effects on service ratios, response times, or service objectives for any of the public services are anticipated.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | <i>Potentially Significant Impact</i> | <i>Less than Significant with Mitigation Incorporated</i> | <i>Less than Significant Impact</i> | <i>No Impact</i> |
|--|---|---|---|-------------------------------------|
| XV. RECREATION — Would the project: | | | | |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Impacts

(a, b) **No Impact.** The proposed project would have no effect on existing recreational facilities.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a) ***Less-than-Significant Impact.*** The proposed project is not anticipated to increase either the number of vehicle trips, volume-to-capacity ratio, or congestion at intersections. The proposed project is consistent with the goals and policies of the Mendocino County Regional Transportation Plan and the County's General Plan.
- b) ***Less-than-Significant Impact.*** The primary purpose of the proposed project is to provide for safer traffic circulation. There is a potential for minor delays during construction. However, there would not be a lowered level of service during the construction phase of the project, as School Way would remain open and traffic would continue to be routed over the existing bridge. Based on current traffic levels in the project vicinity, traffic congestion along School

Way at the West Fork Russian River bridge crossing is not anticipated during the construction phase of the project. Any effects on traffic during construction would be temporary and less than significant.

- c) **No Impact.** The proposed project would not result in a change in air traffic patterns.
- d) **No Impact.** The proposed project would not result in the creation of sharp curves, dangerous intersections, or incompatible uses. The project is designed to provide an improved alignment and a safer bridge across the West Fork Russian River.
- e) **Less-than-Significant Impact.** During construction of the replacement bridge, traffic would be routed over the existing bridge. Stop signs during non-construction times and flagging during construction are anticipated. Although temporary, short-duration disruptions to normal traffic operation would be required during project construction, School Way would remain open to traffic and no adverse effect on emergency vehicle access is anticipated.
- f) **Less-than-Significant Impact.** The proposed project would not be in conflict with any adopted plans, policies, or programs that support alternative transportation, and would be consistent with the goals and policies of the County's Regional Transportation Plan and the Mendocino County General Plan. The new bridge design includes a sidewalk along its north side. The existing bridge crossing would remain open to alternative forms of transportation (e.g., pedestrian, bicycles) during construction.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | Potentially Significant Impact | Less than Significant with Mitigation Incorporated | Less than Significant Impact | No Impact |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| XVII. UTILITIES AND SERVICE SYSTEMS — Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion of Impacts

- a, b) **No Impact.** The proposed project does not involve any actions that would generate wastewater.
- c) **Less-than-Significant Impact.** Construction and operation of the proposed project would not require new facilities or alterations to existing storm water facilities. The proposed project profile would provide sufficient gradient for drainage of roadway and bridge surfaces. It is anticipated that roadway and bridge deck drainage for this project would be diverted away from the approach fills and directly into the natural drainage swales within the 100-year flood plain of the West Fork Russian River. Once the water is within the drainage swales, it is expected to infiltrate into the ground following typical rainfall events.

- d) ***No Impact.*** No new or expanded water entitlements would be required for the proposed project.
- e) ***No Impact.*** The proposed project would be limited to improvements to the existing bridge and approaches, and would not result in a change in the current demand for wastewater treatment.
- f) ***Less-than-Significant Impact.*** Construction activities associated with the proposed project could generate solid waste in the form of demolished materials, metal pilings, and other trash. Solid waste generated at the project site would be disposed of at a suitable facility such as the Ukiah Transfer Station. The proposed project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of the local landfill. The contractor would be responsible for removing the existing bridge from the site.
- g) ***Less-than-Significant Impact.*** Any solid waste generated by the proposed project would be disposed of at an approved landfill, in compliance with local, state, and federal regulations pertaining to solid waste disposal.

Mitigation Measures

No project-specific mitigation is required under this subject.

| | | | | |
|--|---|---|---|----------------------|
| | <i>Potentially Significant Impact</i> | <i>Less than Significant with Mitigation Incorporated</i> | <i>Less than Significant Impact</i> | <i>No Impact</i> |
|--|---|---|---|----------------------|

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

(To be filled out by Lead Agency if required)

- | | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

- a) ***Less than Significant with Mitigation Incorporated.*** As discussed in the preceding sections, the proposed project has a potential to result in adverse effects on air quality, biological resources, and cultural resources. Special status wildlife species that could be affected by the project are central California coast DPS steelhead, California coastal ESU Chinook salmon, central California coast ESU coho salmon, northern red-legged frog, foothill yellow-legged frog, western pond turtle, long-eared owl, white-tailed kite, yellow warbler, yellow-breasted chat, pallid bat, and western red bat. Potential impacts to resources and the specified species are discussed in detail in the corresponding sections above. Mitigation measures required to reduce the significance of project impacts are summarized in Chapter 5. With implementation of the required mitigation measures, potential impacts would be reduced to a less-than-significant level. Although cultural resources are not likely to be affected, there is the potential for previously undetected cultural resources or human remains to be affected by project activities. Therefore, mitigation measures (see Chapter 5) have been incorporated into the proposed project to ensure protection of any such resources in the event of inadvertent discovery. The project is consistent with the existing land uses, and the relevant plans and policies that govern such projects.
- b) ***Less-than-Significant Impact.*** The project would include improvements to an existing transportation system by replacing an existing bridge structure with a new bridge. The project

would not introduce new development into a previously undeveloped area. The project site is near commercial and rural residential uses. Existing open space will be retained. Impacts associated with the project would be limited to the construction phase for the most part, and can be fully mitigated for at the project level. As a result, cumulative impacts are considered to be less than significant.

- (c) ***Less than Significant with Mitigation Incorporated.*** The proposed School Way Bridge Replacement Project could result in a variety of impacts to human beings, particularly during the construction phase. Potential adverse effects on adjacent residential areas along School Way are related to temporary decreases in air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, and temporary increases in noise levels during construction. Chapter 5 contains mitigation measures that will be implemented to avoid or minimize potentially adverse effects to humans resulting from the construction and operation of the proposed project. The proposed project would not involve any actions that would have a substantial direct or indirect effect on the human environment that cannot be mitigated to a less-than-significant level.

4 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
Park Steiner, Environmental Compliance Specialist
Mendocino County Department of Transportation

Date

5 Summary of Mitigation Commitments

Mendocino County is committed to implementing the following mitigation measures during construction of the School Way at West Fork Russian River Bridge (No. 10C-0084) Replacement Project:

5.1 Air Quality

5.1.1 Mitigation Measure #1—Air Quality/Fugitive Dust and Emission Controls

The County shall include provisions in the construction bid documents that the contractor shall implement fugitive dust and emission controls during construction activities. The fugitive dust and emission controls shall include, but not be limited to, the following elements, as appropriate:

- Equipment and manual watering shall be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust. Water shall be applied in a fine spray that does not result in runoff.
- The County or its contractor shall designate a person to monitor dust control and to order increased watering as necessary to prevent transport of dust offsite. This person shall also respond to any citizen complaints.
- Pursuant to California Vehicle Code (Section 23114) and the North Coast Unified Air Quality Management District (Rule 104, Section 4.2.1)(North Coast Unified Air Quality Management District 2005) trucks hauling soil and other loose material to and from the construction site shall be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Exposed stockpiles of soil and other backfill material shall be watered twice daily when visible dust is being emitted, or have soil binders added.
- Any soils that are removed during construction shall be stored onsite in piles not to exceed 4 feet in height. These spoil piles shall be clearly marked and flagged, and shall be surrounded by silt fencing, straw wattles, or other sediment barriers, or covered unless they are to be used immediately. Spoil piles that will not be returned to use within one construction season shall be revegetated with a non-persistent erosion control mixture.
- Construction vehicles shall minimize idling time and equipment shall be shut off when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485).
- Construction equipment will be maintained in proper working conditions according to manufacturer's specifications. Equipments must be checked daily and determined to be in proper running condition before it is operated.

| | |
|------------------------|------------------------------|
| Timing/Implementation: | During construction |
| Enforcement: | North Coast AQMD |
| Monitoring: | County and/or its contractor |

5.2 Biological Resources

5.2.1 Mitigation Measure #2—Erosion and Sediment Control

Type D erosion control measures (i.e., hydroseeding) or hand seeding and mulching methods shall be implemented during construction of the proposed project in non-riparian upland areas. These measures shall conform to the provisions in Section 20-3 of the Caltrans Standard Specifications and the special provisions included in the contract for the project.

Erosion control work shall consist of one application of erosion control materials to embankment slopes, excavation slopes, and other areas with non-riparian uplands designated by the project engineer. These materials shall consist of fiber, seed, mulch, commercial fertilizer, stabilizing emulsion, and water. These materials shall conform to Section 20-2 of the Caltrans Standard Specifications and the specifications discussed below. Additional erosion control measures that shall be implemented by the County include:

- Any construction activities proposed below the ordinary high water line of the West Fork Russian River or within any delineated wetland or other surface water shall be restricted to the dry season (i.e., June 15 – October 15). Construction in upland areas may start on May 15 and extend through November 15.
- Activities that increase the erosion potential within the project area shall be restricted to the relatively dry summer and early fall period (approximately May 15 to October 15) to the maximum extent practicable to minimize the potential for rainfall events to transport sediment to the West Fork Russian River and other surface water features. If construction activities must take place during the late fall, winter, or spring, then temporary erosion and sediment control structures must be in place and operational at the end of each construction day and maintained until permanent erosion control measures are in place (e.g., successful revegetation).
- Areas where vegetation needs to be removed shall be identified in advance of ground disturbance and limited to only those areas that have been approved by the County. The limits of ground disturbance will be staked and flagged or fenced in the field.
- Within 10 days of completion of construction, weed-free mulch shall be applied to disturbed areas in order to reduce the potential for short-term erosion. Prior to a rain event or when there is greater than 50 percent possibility of rain forecasted by the National Weather Service during the next 24 hours, weed-free mulch, tarps, or geotextile fabrics shall be applied to all exposed areas upon completion of the day's activities. Soils shall not be left exposed during the rainy season.

- Suitable Best Management Practices (BMP), such as silt fences, straw wattles, or catch basins, shall be placed below all construction activities at the edge of surface water features to intercept sediment before it reaches the waterway. These structures shall be installed prior to any clearing or grading activities.
- If spoil sites are used, they shall be located such that they do not drain directly into a surface water feature, if possible. If a spoil site drains into a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and vegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season (or no later than October 15) and will be monitored and maintained in good working condition until vegetation becomes established within the disturbed areas.
- Any new or previously excavated gravel material placed in the channel shall be washed at least once and have a cleanliness value of 85 or higher based on Caltrans Test No. 227.

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| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County and/or its contractor |

5.2.2 Mitigation Measure #3—Prevention of Accidental Spills of Pollutants

Construction specifications shall include the following measures to reduce potential impacts associated with accidental spills of pollutants (i.e., fuel, oil, grease, etc.) to vegetation and aquatic habitat resources in the project area:

- Fueling construction equipment shall be done at a fixed fueling station to reduce the area exposed to the potential for fuel spills.
- Secondary containment, such as a drain pan or dropcloth, shall be used to catch spills or leaks when removing or changing fluids.
- Spill containment materials shall be kept onsite at all times to contain any accidental spill.
- Absorbent materials shall be used on small spills rather than hosing down or burying the spill. The absorbent material shall be promptly removed and disposed of properly.
- Onsite vehicles and equipment shall be regularly inspected for leaks and repaired immediately.
- If vehicle and equipment maintenance must occur onsite, it shall be done in designated areas, located away from drainage courses, to prevent the run-on of stormwater and the run-off of spills.
- Equipment and materials shall be stored at least 50 feet away from surface water features, including the West Fork Russian River.

- County is responsible for compliance with applicable federal, state, or local laws or ordinances and shall obtain authorization from all applicable regulatory agencies.

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| Timing/Implementation: | During construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County and/or its contractor |

5.2.3 Mitigation Measure #4—Replacement of Lost Riparian Habitat

The following measures shall be implemented to reduce potential impacts to riparian habitat in the project area:

- The width of the construction disturbance zone within the riparian habitat shall be minimized through careful pre-construction planning.
- Exclusionary fencing shall be installed along the boundaries of all riparian areas to be avoided to ensure that impacts to riparian vegetation outside of the construction area are minimized.
- Riparian habitat areas temporarily disturbed shall be replanted using riparian species that have been recorded along the West Fork Russian River in the project vicinity, including willow, white alder, and Fremont cottonwood.
- Onsite creation/restoration shall occur in areas disturbed during project construction and the amount of habitat created/restored shall be at a 3:1 ratio of new plantings per large (6-inch diameter at breast height or greater) woody plant removed. This replanting ratio will help ensure successful establishment of at least one vigorous plant for each plant removed.
- Plant spacing intervals will be determined as appropriate based on site conditions following construction.
- Non-native tree species removed during project construction will be replaced with native riparian species.

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| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.4 Mitigation Measure #5—Frogs

- Because northern red-legged and foothill yellow-legged frogs may move into and out of the project area at any time, a pre-construction survey for the species is necessary to confirm their status (presence/absence) on the site immediately prior to the onset of project construction. Therefore, a qualified biologist shall conduct a minimum of one survey of the project area for these frog species. The survey shall be conducted a maximum of one week prior to construction. If either of these frog species is found within a construction impact zone, the biologist shall move it to a safe location having similar habitat.

- If a northern red-legged or foothill yellow-legged frog is encountered during construction, activities in the vicinity shall cease until appropriate avoidance measures are implemented or it is determined that the frog will not be harmed. Any frogs encountered during construction shall be allowed to move away on their own. Any trapped, injured, or killed frogs shall be reported immediately to CDFG.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.5 Mitigation Measure #6—Western Pond Turtle

The proposed project has the potential to result in adverse impacts on western pond turtles as identified below:

- Because turtles may move into and out of the project site at any time, a pre-construction survey for the species is necessary to confirm its status (presence/absence) on the site immediately prior to the onset of project construction. Therefore, a qualified biologist shall conduct a minimum of one survey of the project site for pond turtles and their nests. The survey shall be conducted a maximum of one week prior to construction. If a pond turtle is found within a construction impact zone, the biologist shall move it to a safe location within similar habitat. If a pond turtle nest is found, the biologist shall flag the site and determine if construction activities can avoid affecting the nest. If the nest cannot be avoided, it will be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist.
- If a western pond turtle is encountered during construction, activities in the vicinity shall cease until appropriate corrective measures have been implemented or it has been determined that the turtle will not be harmed. Any turtles encountered during construction shall be allowed to move away on their own. Any trapped, injured, or killed turtles shall be reported immediately to CDFG.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.6 Mitigation Measure #7—Raptors

- Pre-construction surveys for nesting raptors shall be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. At least one survey shall be conducted no more than 15 days prior to the initiation of construction activities. During this survey, the biologist will inspect all trees immediately adjacent to the impact areas for raptor nests. If an active raptor nest is found within 250 feet of the construction area, the biologist, in consultation with the CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.

- If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed as a result of the project shall be removed before the onset of the nesting season (February 15 through September 30), if practicable. This will discourage nesting in areas that would be directly impacted by the proposed project and substantially decrease the likelihood of direct impacts.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.7 Mitigation Measure #8—Migratory Birds

- Grading and other construction activities shall be scheduled to avoid the nesting season to the extent possible. The nesting season for migratory bird species that occur in the project vicinity extends from mid-February through September. If construction occurs outside of the breeding season, no further mitigation is necessary. If the breeding season cannot be completely avoided, the following mitigations shall be implemented:
 - A qualified biologist shall conduct a minimum of one pre-construction survey for yellow warblers and yellow-breasted chats within the project area and a 250-foot buffer around the project area. The survey shall be conducted no more than 15 days prior to the initiation of construction in any given area. The pre-construction survey should be used to ensure that no nests of these species within or immediately adjacent to the project area would be disturbed during project implementation. If an active nest is found, a qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest.
 - If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs and trees) that will be removed as a result of the project shall be removed by hand before the onset of the nesting season (February 15 through September 30), if practicable. This will discourage nesting in areas that would be directly impacted by the proposed project and substantially decrease the likelihood of direct impacts.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.8 Mitigation Measure #9—Bats

- To the extent practicable, the removal of any large trees shall occur outside of the breeding season of pallid bat and western red bat. For the purposes of implementation of this measure, the breeding season is considered to be from April 1 through August 15th.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | CDFG |
| Monitoring: | County |

5.2.9 Mitigation Measure #10—Waters of the United States

To the extent practicable, the discharge of dredged or fill material into waters of the United States, including wetlands, shall be avoided (this also includes waters not subject to Corps jurisdiction, but subject to RWQCB jurisdiction). However, complete avoidance is not feasible, thus the following measures shall be implemented:

- Prior to any discharge of dredged or fill material into Corps jurisdictional waters, authorization under a Nationwide Permit shall be obtained from the Corps. For any features determined not to be subject to Corps jurisdiction during the verification process, authorization to discharge fill shall be obtained from the RWQCB. For fill requiring a Corps permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral stream, notification of streambed alteration shall be submitted to the CDFG; and, if required, a Streambed Alteration Agreement shall be obtained from CDFG.
- Construction activities that will affect water of the United States shall be conducted during the dry season to minimize erosion.
- Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g., silt fences, straw bales).
- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., Corps, RWQCB, and CDFG) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented.

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| Timing/Implementation: | Prior to, during, and after construction |
| Enforcement: | Corps, North Coast RWQCB, CDFG |
| Monitoring: | County |

5.3 Cultural Resources

5.3.1 Mitigation Measure #11—Cultural Resources

- In the event archaeological deposits—other than those determined to lack eligibility for listing in the National Register of Historic Places—are discovered during project activities, all work in the immediate vicinity of the discovery shall be stopped immediately and the Mendocino County Department of Transportation shall be notified. An archaeologist meeting the Secretary of Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be retained to evaluate the find and recommend appropriate conservation measures. The conservation measures shall be implemented prior to re-initiation of activities in the immediate vicinity of the discovery.

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| Timing/Implementation: | During construction |
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| Enforcement: | Native American Heritage Commission and County |
| Monitoring: | County and/or its contractor |

5.3.2 Mitigation Measure #12—Human Remains

- If human remains are discovered during project activities, all activities in the vicinity of the find shall be suspended and the Mendocino County Sheriff–Coroner shall be notified. If the coroner determines that the remains may be those of a Native American, the coroner shall contact the Native American Heritage Commission. Treatment of the remains shall be conducted in accordance with the direction of the County Coroner and/or the Native American Heritage Commission, as appropriate.

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| Timing/Implementation: | During construction |
| Enforcement: | Native American Heritage Commission and County |
| Monitoring: | County and/or its contractor |

5.4 Geology and Soils

Implement *Mitigation Measure #2 - Soil Erosion and Sedimentation Control* to prevent degradation of water quality.

5.5 Greenhouse Gas Emissions

5.5.1 Mitigation Measure #13—Greenhouse Gas

- Reuse and recycle construction and demolition waste, including, but not limited to soil, vegetation, concrete, lumber, metal, and cardboard.
- Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.
- Meet an identified transportation-related benchmark.
- Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.
- Create walking paths directed to the location of schools, parks, and other destination points.
- Protect existing trees to the extent possible and encourage the planting of new trees.

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| Timing/Implementation: | Prior to and during construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

5.6 Hazards and Hazardous Materials

Implement Mitigation Measure #3 - Prevention of Accidental Spills of Pollutants to prevent degradation of the project area environment.

5.6.1 Mitigation Measure #14–Wildfire Potential

- Per the requirements of Public Resources Code 4442, prior to issuance of a grading permit for operation of any internal combustion engine on any forest-, brush-, or grass-covered land, the County shall include a note on all construction plans that internal combustion engines shall be equipped with an operational spark arrester, or the engine must be equipped for the prevention of fire.

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| Timing/Implementation: | Prior to construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

5.7 Hydrology and Water Quality

Implement *Mitigation Measure #11—Soil Erosion and Sedimentation Control* and *Mitigation Measure #12—Prevention of Accidental Spills* to prevent degradation of water quality.

5.8 Noise

5.8.1 Mitigation Measure #15–Construction Noise

The County shall include in the construction specifications the following measures to reduce potential impacts associated with construction noise to a less-than-significant level:

- Construction shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday.
- Pile driving can create loud percussive sounds and ground-borne vibration within 100 feet of the operation. Standard mitigation is to pre-drill pile bores to minimize the number of blows needed. Residents should be notified when pile driving will occur, and work should only occur in the daytime.
- Each internal combustion engine used for any purposed on the job site shall be equipped with a muffler of a type recommended by the manufacturer.

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| Timing/Implementation: | During construction |
| Enforcement: | County |
| Monitoring: | County and/or its contractor |

6 Report Preparation

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6.6 Lawrence and Associates – Hazardous Materials

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