

Wildwood Road Realignment and Widening Project

Final Program Environmental Impact Report

SCH No. 2009092086



PREPARED FOR
Trinity County
Department of Transportation
P.O. Box 2490
Weaverville, CA 96093

PREPARED BY
North State Resources, Inc.
5000 Bechelli Lane, Suite 203
Redding, CA 96002

June 2014

**Wildwood Road Realignment and Widening
Project**
Final Program Environmental Impact Report

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Prepared for:
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Acronyms and Abbreviations

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
County	Trinity County Department of Transportation
EIR	Environmental Impact Report
MMRP	mitigation monitoring and reporting program
proposed project	Wildwood Road Realignment and Widening Project

Chapter 1. Introduction

1.1 Overview

This Final Program Environmental Impact Report (EIR) was prepared for the Wildwood Road Realignment and Widening Project (proposed project) by the Trinity County Department of Transportation (County). The County has the primary responsibility for approving the project and is the lead agency in accordance with the requirements of the California Environmental Quality Act (CEQA). The purpose of this document is to describe the public review process for the Draft EIR and document changes made to the Draft EIR in response to comments received during the review period.

The Draft EIR was circulated for a 45-day public and agency review period from April 2 through May 19, 2014. Copies of the document were made available to local, state, and federal agencies and to interested organizations and individuals wishing to review and comment on the report. Copies of the Draft EIR and non-confidential supporting technical studies prepared by North State Resources, Inc. for this project were available for public review at the Trinity County Department of Transportation office, Hayfork Branch Library, and Weaverville Library. The Draft EIR was also available on Trinity County's web page at <http://www.trinitycounty.org/index.aspx?page=84>. The complete distribution list is included in Appendix A.

A public hearing was held before the Trinity County Planning Commission on May 8, 2014, to solicit oral comments on the Draft EIR. No members of the public attended the hearing, and no comments were received at the hearing.

Copies of comment letters received during the review period are included in Chapter 2 with responses to each comment. Changes made to the Draft EIR as a result of these comments are identified as an errata sheet in Chapter 3. The final mitigation monitoring and reporting program is included as Appendix B.

The Final EIR is being published on June 25, 2014. It will be made available at the same locations as the Draft EIR, including the Trinity County Department of Transportation office in Weaverville, Hayfork Branch Library, and Weaverville Library and on Trinity County's web page, <http://www.trinitycounty.org/index.aspx?page=84>. A public hearing will be held before the Trinity County Planning Commission on Thursday, July 10, 2014, at 7 p.m. A final hearing will be held before the Trinity County Board of Supervisors on Tuesday, August 12, 2014, to make a decision on certifying the EIR and approving the project.

1.2 Final EIR Organization

The Final EIR is organized into the following chapters:

- Chapter 1, Introduction – Presents an overview of the public review process.
- Chapter 2, Comments and Responses – Presents comment letters received on the Draft EIR and responses to those comments.
- Chapter 3, Draft EIR Errata – Identifies changes made to the EIR in response to public or agency comments.
- Appendix A, Distribution List – Lists the individuals and agencies that were sent copies of the Draft EIR.
- Appendix B, Final Mitigation Monitoring and Reporting Plan – Presents the final mitigation monitoring and reporting program (MMRP), which incorporates comments received on the Draft EIR.

Chapter 2. Comments and Responses

This chapter contains copies of comment letters received on the Draft EIR. Comments received on the Draft EIR do not indicate new significant impacts or “significant new information” that would require recirculation of the Draft EIR pursuant to California Environmental Quality Act Guidelines Section 15088.5. Because no new significant environmental issues were raised during the 45-day comment period, the County directed that a Final EIR be prepared.

Table 2-1 lists agencies and individuals who submitted comments on the Draft EIR. The letters are reproduced on the following pages. Responses to comments follow each comment letter. To assist in referencing comments and responses, each letter has been assigned a number, based on the date the letter or comment was received, and each specific comment was assigned a letter of the alphabet. Responses correspond with the codes used in the margin of the comment letters. If changes to the Draft EIR text were necessary in response to the comments, those changes are described in Chapter 3 of this Final EIR. Comments that present opinions about the project or that raise issues not directly related to the substance of the Draft EIR are noted without a detailed response.

COMMENT LETTER NO.	COMMENTER	DATE OF LETTER/COMMENT
1	Marcelino Gonzalez, Local Development Review, Office of Community Planning, District 2, California Department of Transportation	April 29, 2014
2	Curt Babcock, Habitat Conservation Program Manager, California Department of Fish and Wildlife, Region 1 – Northern	May 15, 2014
3	Suren Holbek, Property Owner	May 15, 2014
4	Andre Boutros, Executive Director, California Transportation Commission	May 23, 2014

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DEPARTMENT OF TRANSPORTATION
OFFICE OF COMMUNITY PLANNING
1657 RIVERSIDE DRIVE
REDDING, CA 96001
PHONE (530) 229-0517
FAX (530) 225-3020



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DEPT. OF TRANSPORTATION

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IGR/CEQA Review
Tri-36-40.8
& Tri-3-16.39
Wildwood Road Realignment
Draft EIR
SCH# 2009092086

April 29, 2014

Ms. Janice Smith
Trinity County Department of Transportation
P.O. Box 2490
Weaverville, CA 96093

Dear Ms. Smith:

Thank you for the opportunity to review the Draft Environmental Impact Report submitted on behalf of Trinity County for the Wildwood Road Realignment project. Wildwood Road connects State Route (SR) 3 to SR 36.

Please require the contractor to provide Caltrans with notices relating to road closures, detours, and traffic control plans.

1a

If you have any questions, or if the scope of this project changes, please call me at (530)225-3369.

Sincerely,

MARCELINO GONZALEZ
Local Development Review
Office of Community Planning
District 2

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2.1 Responses to Letter 1 Comments

- 1a Trinity County will require its contractor(s) to notify the California Department of Transportation of any road closures, detours, and traffic control plans required during construction of each phase of the proposed project. The traffic control measures incorporated into the proposed project (Section 2.5.6 Traffic Control in the Draft EIR) have been revised, as described in Chapter 3 of this Final EIR.

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State of California – Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 Region 1 – Northern
 601 Locust Street
 Redding, CA 96001
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
 CHARLTON H. BONHAM, Director



Letter 2

May 15, 2014

Ms. Janice Smith
 Trinity County Department of Transportation
 P.O. Box 2490
 Weaverville, CA 96093

Subject: Review of the Draft Environmental Impact Report (DEIR) for the Wildwood Road Realignment and Widening Project, State Clearinghouse Number 2009092086, Trinity County

Dear Ms. Smith:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced DEIR, SCH# 2009092086 (Project). The Project is located in Trinity County, south of Hayfork, along Wildwood Road between Post Miles 5.0 and 11.6. The Department offers the following comments and recommendations on the Project in our role as the State’s trustee for fish and wildlife resources and as a responsible agency under the California Environmental Quality Act (CEQA), California Public Resources Codes §21000 *et seq.*

Project Description

The Project as described in the DEIR is to widen “Wildwood Road between Post Miles 5.0 and 11.6 to two standard travel lanes with shoulders, improving its alignment to reduce the severity of its curves and improve sight distance, and rehabilitating the roadway structural section and drainage.” This new road realignment would require large amounts of fill in some ravines and stream crossings. “The project would be designed and constructed in three phases, approximately 2 miles at a time, starting at the north end at the intersection with East Fork Road.”

Project Comments and Recommendations

In the Executive Summary (Page ES-7), it states under Mitigation Measure BR-1b which pertains to the installation of culverts to prevent impedance of fish passage, that “The Contractor will also be responsible for installing them by mid-November...” The Department recommends that this be changed to mid-October due to the timing of salmonid spawning, and also will require this timeframe in the Lake and Streambed Alteration Agreement (LSAA).

2a

In the Executive Summary (Page ES-8), it states under Mitigation Measure BR-1c, which pertains to performing preconstruction surveys for special-status herpetofauna and the implementation of avoidance measures, that foothill yellow-legged frogs (*Rana boylei*) and tailed frogs (*Ascaphus truei*) will be surveyed 24 hours prior to any instream construction. The Department recommends that surveys for egg masses also be conducted for these species and that minimization and avoidance measures be specified in the final EIR.

2b

Ms. Janice Smith
May 15, 2014
Page 2

Further, the Department requests that if any special-status species are found during surveys, California Natural Diversity Data Base (CNDDDB) forms be filled out and sent to Sacramento and a copy of the form be sent to the Regional office at: California Department of Fish and Wildlife, Attn: CEQA, 601 Locust Street, Redding, CA, 96001. Instructions for providing data to the CNDDDB can be found at: <http://www.dfg.ca.gov/biogeodata/cnddb/>. Species that warrant reporting to the CNDDDB include Species of Special Concern, Fully Protected species, rare species as defined by the California Native Plant Society, species proposed for listing or candidate species, and species listed as threatened or endangered by either the state or federal Endangered Species Acts.

2c

On page 3-79 of the DEIR, it states that water drafting from ephemeral streams, intermittent streams, wetlands or constructed ponds can be done as long as the Shasta-Trinity National Forest Land and Resource Management Plan standards and guidelines are followed. However, the Department recommends including water drafting in the LSAA notification package as the drafting may be substantial and have adverse affects on fish and wildlife resources.

2d

If you have any questions or concerns, please call Amy Henderson, Environmental Scientist, at (530) 225-2779 or by email Amy.Henderson@wildlife.ca.gov.

Sincerely,



for

Curt Babcock
Habitat Conservation Program Manager

ec: Michael R. Harris, Amy Henderson, Kristin Hubbard, Kate Grossman and Bernard Aguilar
California Department of Fish and Wildlife
Michael.R.Harris@wildlife.ca.gov, Amy.Henderson@wildlife.ca.gov,
Kristin.Hubbard@wildlife.ca.gov, Katherine.Grossman@wildlife.ca.gov, and
Bernard.Aguilar@wildlife.ca.gov

State Clearinghouse
State.clearinghouse@opr.ca.gov

Ms. Janice Smith
Trinity County Department of Transportation
jsmith@trinitycounty.org

CHRON

2.2 Responses to Letter 2 Comments

- 2a The timing for installation of culverts has been modified to be by mid-October. Mitigation Measure BR-1b (Section 3.7.3 Impact Analysis and Mitigation Measures for Biological Resources in the Draft EIR) has been revised, as described in Chapter 3 of this Final EIR.
- 2b The pre-construction survey for foothill yellow-legged frogs and tailed frogs will include egg masses, and avoidance or protection measures will be implemented if egg masses are found. Mitigation Measure BR-1c (Section 3.7.3 Impact Analysis and Mitigation Measures for Biological Resources in the Draft EIR) has been revised, as described in Chapter 3 of this Final EIR.
- 2c The County will ensure that the biologists conducting surveys for the proposed project will submit appropriate forms for observations of special-status species to the California Department of Fish and Wildlife (CDFW), by making the reporting requirement part of their contract scope of work.
- 2d The County will include water drafting as part of the project description in its notification of streambed alteration that will be submitted to CDFW once the project phases are designed. Any proposed water drafting will comply with guidance provided in the National Marine Fisheries Service – Southwest Region *Water Drafting Specifications* (August 2001).

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May 15, 2014

Trinity County Department of Transportation
ATTENTION: Wildwood Road Comments
P.O. Box 2490
Weaverville, CA. 96093-2490

Re: Wildwood Road Realignment and Widening

After reading much of the DEIR for this project and owning private property on both sides of the Wildwood road, through the proposed project (mile 5.7 to 5.9 area), my concerns and comments are focused more on the physical and engineering aspects of the proposal, rather than the myriad habitat and biological components that are considered in the Draft

I have lived on my property much of the 25 years that I have owned it and find that my privacy and subsequent distance and buffer from the Wildwood road is a very important aspect of the reason I originally bought this place.

The Wildwood road has been a paved arterial USFS and County road between Hwy 3 and Hwy 36 for close to 55 years. The peak traffic numbers have come and gone, since the days of logging, ranching, active mining, local lumber mills and the related population in Trinity County, which used this road. (I am excluding the present pot growing boom and subsequent increase in traffic, deliberately.)

I see no pressing reason to neither widen, realign nor spend millions of tax payer dollars to upgrade a 6.6 mile section of the Wildwood road. Cars and trucks are safer, easier to operate and more comfortable than ever before. So why the proposal now, to straighten turns, widen and elevate the road and spend 5 1/2 years on such a plan?

3a

One of the many attractions of Trinity County is its rural feel, abundant public lands and relatively unchanged historical roots, compared to many other areas in Northern California. The roads and road system is integral to that history.

3b

The DEIR states that multiple approvals are needed from State and Federal agencies to implement this proposal, but no mention is made about approval by any of the four private property owners within this proposal. Nor is any mention made about tree removal on private property, but both the USFS Gemmill Gulch picnic area and the Shiell Gulch campgrounds are stated as "No trees will be removed".

3c

Trinity County's General Plan is being referenced in the DEIR as validity to proceeding with this project. Yet, the General Plan was crafted by County officials in the distant past. There are present long term residences and property owners that have private property rights, seemingly non-identified in the Draft. The General Plan is a document made by man, and should consider private property rights, or be amended.

3d

There is a 40' easement for the Wildwood roads' present location, as documented on my deed. I am not willing, nor agreeable to any additional taking of my property for this project. Any planned tree removal

3e

on the downhill slope (south side of road) through my property, would seriously diminish my privacy by increasing my view of the Wildwood road. The proposal shows a realignment that would cut through the existing corner of the road and through my northern property line at approx. mile 5.9.
If the Trinity County DOT could guarantee that the plan through my property would not remove any trees on the down slope of the project and all realignment would occur only on the cut bank side, I may be willing to negotiate based on a fair market value of any additional private property taken in the expansion of an easement.

3e
cont.

Of course any increase in road width in the rock cliff sections of the project, would equate to a substantial increase in easement width to incorporate the necessary slope angles and the cost of associated work and materials to retain such slopes on the many cuts within the project area.

3f

Another question of the proposed design, is how the County plans to clean the inbound ditches, once they are paved?

3g

If the Wildwood road is under consideration for a "Scenic Roadway" status, is this proposed, 5 year, 6.6 mile widening and realignment project in conflict with that?

3h

There are other areas on the Wildwood road that are out of the scope of this project, but are equally at risk of flooding, due to elevation and proximity to Hayfork creek. One being just past the south end of the proposal, on SPI land. And another in Wildwood, where the road crosses Hayfork creek. Raising the road bed at Gemmill Gulch and at the East Fork area will not mitigate the damage of a 100 year flood, but will probably help somewhat. To forecast the need to raise the Wildwood road in 2 locations "when" there is a 100 year flood event is a very costly proposal, considering all the other damages County-wide that would be associated with in such a storm.

3i

North State Resources' data on quantity of vehicles per hour/ per day seems very high to me. I can't recall if there was any reference to the dates the tally was made, but I wonder what event was happening, to show such an increase in a normal average on the Wildwood road.

3j

I am also concerned that increasing the ability to drive 35mph (or faster) in the proposed area, could increase the severity of future accidents. I have driven this stretch of road for 30 years now, in all types of weather and many different vehicles. Never come close to having an accident, due in part to: I keep on my side of the road, watch for rocks in the roadway and don't drink and drive.

3k

The DEIR states that in 2009, the California Transportation Commission estimated the 3 phases of this proposal would cost \$13,500,000. What will this project cost taxpayers in 2022-thru-2025 dollars? Not to mention, what road project has ever come in on budget?

3l

I recommend: ALTERNATIVE #2 NO PROJECT (continue maintenance but no reconstruction).

3m

Thank you, and thank you to the Trinity County DOT for many years of rock, snow and downed tree removal from the Wildwood road.

Suren Holbek
5700 Wildwood road
Wildwood, CA.
96076

2.3 Responses to Letter 3 Comments

- 3a As described in Section 2.3, Project Objectives, in the Draft EIR, the County is concerned with public safety due to the insufficient width (less than two lanes wide), tight turns, rock hazards, poor surface runoff, and lack of shoulders and guardrail along portions of Wildwood Road, as well as the ongoing maintenance requirements to keep the road open and in acceptable condition for travelers. For these reasons, the County is investing in a long-term solution for improving Wildwood Road.
- 3b The County acknowledges and agrees with the comment. The project purpose is to preserve an integral part of the road system.
- 3c Throughout the Draft EIR, the County recognizes the presence of private lands in the project area and the need to obtain easements or rights-of-way from private property owners in order to implement those components of the proposed project on private lands. The County will work with the property owners to obtain the necessary rights-of-way and/or easements. Regarding tree removal, the specific details about trees to be removed will be generated during the design phase of each segment, and the specific number and location of trees to be removed are not currently known. The Draft EIR is intended to provide a programmatic-level analysis of impacts to biological resources, including trees and habitats, and presents a maximum amount of disturbance anticipated within the project area. At the final design stage and during right-of-way acquisition, the County will negotiate with the property owners regarding fair compensation for their land and any trees that would need to be removed on their lands. Tree removal will be minimized to the extent possible while still meeting the project objectives.
- 3d As noted in the response to comment 3c above, the County will coordinate with the private property owners during final design and when obtaining easements and/or rights-of-way and will respect their private property rights.
- 3e As noted in the response to comment 3c above, the exact location of the road realignment and necessary tree removals is not known at this time. However, preliminary plans are to cut into the uphill cut bank at this location, so tree removal on the downhill slope at this particular location is probably avoidable. The County Engineers will design the road improvements to avoid tree removal that conflicts with property values to the extent possible. When design of each segment is nearly final, a professional right-of-way negotiator and appraiser will negotiate with the property owners of each segment. Property owners are always compensated for the fair market value of any property that is acquired by the County for road right-of-way.
- 3f The County acknowledges and agrees with the comment. In steep terrain, increasing roadway width always involves extensive cuts and fills. The County anticipates this and will consider this in designing the project.

- 3g Future road maintenance would continue, similar to current maintenance activities, but the County expects less maintenance to be needed with the proposed road improvements.
- 3h As discussed in Section 3.9.3 Impact Analysis and Mitigation Measures for Aesthetics, minor changes to the visual setting along Wildwood Road would be expected with the proposed project; however, the overall visual character and permanent views along the road would be retained. Wildwood Road would still be eligible as a County scenic roadway with implementation of the proposed project.
- 3i The County acknowledges the comment and has considered the advantages and disadvantages of improving stormwater drainage and flood flows along Wildwood Road. The bridge over Hayfork Creek in Wildwood is being replaced with a new structure that will pass the 100-year storm, and Wildwood Road will be raised in that area to prevent flooding. That project is scheduled for construction in 2015, years ahead of the larger project described in this EIR.
- 3j The traffic estimates presented in the Draft EIR are from traffic counts performed by the County Department of Transportation in June 2010.
- 3k The County 35 mile-per-hour speed indicated in the document is a design speed. Design speed is an engineering parameter that dictates road and shoulder widths, road grades and cross slopes, and curve radii (tightness of curves). As stated in Section 2.4.1 of the Draft EIR, the design speed on the curves will be only 20 miles per hour, while the straighter parts of the road will be designed to 35 miles per hour. The road improvements will increase the speed at which the road can be safely driven. Therefore, frequency or severity of accidents is not expected to increase as a result of this project.
- 3l The County acknowledges the comment, but the costs to taxpayers are not within the purview of CEQA.
- 3m The County acknowledges the comment and will consider it when deciding whether to approve the proposed project.

CARL GUARDINO, Chair
LUCETTA DUNN, Vice Chair
BOB ALVARADO
DARIUS ASSEMI
YVONNE B. BURKE
JAMES EARP
DARIO FROMMER
JAMES C. GHIEMMETTI
FRAN INMAN
JAMES MADAFFER
JOSEPH TAVAGLIONE

STATE OF CALIFORNIA

EDMUND G. BROWN Jr., Governor



Letter 4

SENATOR MARK DESAULNIER, Ex Officio
ASSEMBLY MEMBER BONNIE LOWENTHAL, Ex Officio

Andre Boutros, Executive Director

CALIFORNIA TRANSPORTATION COMMISSION

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(916) 654-4245
<http://www.catc.ca.gov>

May 23, 2014

Ms. Janice Smith
Trinity County Department of Transportation
PO Box 2490
Weaverville, CA 96093

RE: Draft Environmental Impact Report (DEIR) for the Wildwood Road Realignment and Widening Project

Dear Ms. Smith,

The California Transportation Commission, as a Responsible Agency, received the DEIR prepared by the Trinity County Department of Transportation for the Wildwood Road Realignment and Widening Project (project). The project will re-construct, widen, and realign a 6.6 mile section of Wildwood Road between East Fork Road and Gemmill Gulch to provide two standard travel lanes with shoulders, reduce curve severity, improve sight distance, rehabilitate the roadway structural section, and improve drainage.

The Commission considered the DEIR at its May 21, 2014 meeting. The Commission has no comments pertaining to the environmental impacts or the alternatives considered in the DEIR. However, the Commission recommends that the Trinity County Department of Transportation and its partners identify and secure the necessary funding to complete the project.

As this project is programmed in the 2014 State Transportation Improvement Program (STIP) and actions under the purview of the Commission are anticipated, the Commission should be notified as soon as the environmental process is complete. The Commission cannot allocate funds to a project for design, right of way or construction until the final environmental document is complete and the Commission has considered the environmental impacts of the project and approved the environmentally cleared project for future consideration of funding.

Upon completion of the CEQA process, prior to the Commission's action to approve the project for future consideration of funding, the Commission expects the lead and/or implementing agency to provide written assurance whether the selected alternative identified in the final environmental document is or is not consistent with the project programmed by the Commission and included in the Regional Transportation Plan. In the absence of such assurance of consistency, it may be assumed that the project is not consistent and Commission staff will base its recommendations to the

4a

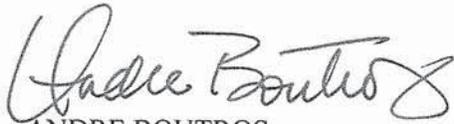
Ms. Janice Smith
May 23, 2014

Commission on that fact. The Commission may deny funding to a project which is no longer eligible for funding due to scope modifications or other reasons.

↑ 4a, cont.

If you have any questions, please contact Laura Pennebaker at (916) 653-7121.

Sincerely,



ANDRE BOUTROS
Executive Director

c: Katrina Pierce, Chief, Caltrans Division of Environmental Analysis
Rick Tippett, Trinity County Transportation Commission

2.4 Responses to Letter 4 Comments

- 4a The County acknowledges the comment and will provide the California Transportation Commission with the information it requests to secure funding for the proposed project.

Chapter 3. Changes to Draft EIR

This chapter identifies changes to the Draft EIR in response to the comments received, as documented in Chapter 2 of this Final EIR. Insertions are shown in underline format, and deletions are shown in ~~strike through~~ format. None of the changes constitutes new significant information or results in new significant impacts or mitigation measures.

Section 2.5.6 Traffic Control

Sentence number 2 of paragraph number 3 of this section is revised as follows:

The County or its contractor would notify private land owners, the Forest Service, Caltrans, emergency response providers, and others, as appropriate, of the road closure schedule and alternative access routes.

This sentence has also been revised in the Final MMRP (see Appendix B).

Section 3.7.3 (Biological Resources) Impact Analysis and Mitigation Measures

Mitigation Measure BR-1b: Prevent impedance of fish passage.

The third sentence of the introductory paragraph for the mitigation measure has been revised as follows:

The contractor will also be responsible for installing them by mid-~~October~~ November, or earlier as specified by the National Marine Fisheries Service (NMFS) ~~or CDFW~~, to accommodate fish passage.

The second bullet of the mitigation measure has been revised as follows:

- Prior to mid-~~October~~ November (or earlier as specified by NMFS ~~or CDFW~~), culverts will be in place and fully functional and all equipment and temporary construction materials removed from the stream. No structure or fill shall be left where it could become a barrier to the free passage of water or the movement of fish and aquatic animals between mid-October ~~November~~ and June 15 or after construction is complete.

The statement and bullet have also been revised in the Final MMRP (see Appendix B), and these changes apply to the Executive Summary of the Draft EIR, too.

Mitigation Measure BR-1c: Conduct preconstruction surveys for special-status herpetofauna and implement avoidance measures.

The first bullet of the mitigation measure has been revised as follows:

- Any project activities in perennial streams or adjacent riparian habitat will be preceded by a preconstruction survey for special-status herpetofauna and their eggs conducted by a qualified

biologist within the stream and adjacent riparian habitat in the project area. Surveys will be conducted within 24 hours of any instream construction (including diversion installations) or riparian vegetation removal. If a foothill yellow-legged frog, tailed frog, or western pond turtle is found, the qualified biologist will move the animal to habitat either up or downstream of the project area. Monitoring and species removal shall continue daily until the work area is dewatered or in-stream and riparian zone construction is complete. If frog egg masses or turtle eggs are found during the survey in an area that will be disturbed, a no-disturbance buffer will be established around the eggs until the eggs hatch, as determined by a biologist. If avoidance is not practicable, the egg mass(es) or turtle eggs may be relocated to a suitable location in or near the same stream in coordination with CDFW.

The bullet has also been revised in the Final MMRP (see Appendix B), and these changes apply to the Executive Summary of the Draft EIR, too.

APPENDIX A

Draft EIR Distribution List

Wildwood Road Project – Draft EIR Distribution List

Governor's Office of Planning and Reserach, State Clearinghouse PO Box 3044 Sacramento, CA 95812-3044	California Transportation Commission Attention: Susan Bransen 1120 N Street, MS 52 Sacramento, CA 95814 (mailed 3/31/2014)	Chris Fazzari Caltrans Office of Local Assistance PO Box 496073 Redding, CA 96049-6073
Tom Hall, District Ranger South Fork Management Unit Shasta-Trinity National Forest P.O. Box 159 Hayfork, CA 96041	Mark Goldsmith, Planning Officer Weaverville District Shasta-Trinity National Forest PO Box 1190 Weaverville, CA 96093	Richard Martin Jr. Air Pollution Control Officer NCUAQMD 2300 Myrtle Avenue Eureka, CA 95501
Jim Mazza, Project Manager Regulatory Division, San Francisco District U.S. Army Corps of Engineers 1455 Market Street, 16th Floor San Francisco, CA 94103	Chuck Glasgow National Marine Fisheries Service 1655 Heindon Road Arcata, CA 95521-4573	Gregory Schmidt Fish & Wildlife Biologist US Fish & Wildlife Service 1655 Heindon Road Arcata, CA 95521-4573
Robert Burns Wintu Educational and Cultural council PO Box 483 Hayfork, CA 96041	Marilyn Delgado, Tribal Chair Nor-Rel-Muk Nation PO Box 1967 Weaverville, CA 96093	Trinity County Historical Society PO Box 333 Weaverville, CA 96093
Richard Simon, Director Shasta County Planning Division Dept. of Resource Management 1855 Placer Street, Suite 103 Redding, CA 96001	Kevin Hamblin, Director Humboldt County Planning Division 3015 H Street Eureka, CA 95501-4484	Greg Plucker, Director, Siskiyou County Community Development Dept. 806 South Main Street Yreka, CA 96097-3321
Steve Dunncliff, Director, Mendocino County Planning & Building Services 860 North Bush Street Ukiah, CA 95482	Sean Moore, Director Tehama County Planning Dept. 444 Oak Street, Room 1 Red Bluff, CA 96080	Joe Micheletti, Area Commander California Highway Patrol PO Box 1350 Weaverville, CA 96093
Kathy Ratliff, Director Trinity County Life Support PO Box 2907 Weaverville, CA 96093	David Loeffler, Chief Hayfork Fire Protection District P.O. Box 668 Hayfork, CA 96041	Rick Coleman, General Manager Trinity PUD PO Box 1216 Weaverville, CA 96093
Garth Pedrotti, Marshal Trinity County Marshal's Office PO Box 1369 Weaverville, CA 96093	Lorrac Craig Trinity County Sheriff's Dept PO Box 1228 Weaverville, CA 96093	Dennis Harman, Sr. Engineer Verizon PO Box 1218 Weaverville, CA 96093
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Wildwood Road Project – Draft EIR Distribution List

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c/o Trinity County Planning Dept

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APPENDIX B

Final Mitigation Monitoring and Reporting Program

**Final
Mitigation Monitoring and Reporting Plan
for the
Wildwood Road Realignment and Widening
Project**

**CEQA Lead Agency:
Trinity County**

Prepared: June 2014

Introduction

Purpose

Trinity County Department of Transportation (County) has prepared an Environmental Impact Report (EIR) for the proposed Wildwood Road Realignment and Widening Project. The proposed project would involve widening Wildwood Road between Post Miles 5.0 and 11.6 to two standard travel lanes with shoulders, improving its alignment to reduce the severity of its curves and improve sight distance, and rehabilitating the roadway structural section and drainage. The project would be designed and constructed in three phases, approximately 2 miles at a time, starting at the north end at the intersection with East Fork Road. The proposed project is described in more detail in the EIR.

As described in the Draft EIR (Chapter 2, Project Description), the proposed project includes a number of construction measures and specifications to minimize or prevent adverse effects on the environment (see below for list of these measures). The EIR also identified several mitigation measures that are required to reduce potentially significant impacts to levels that are less than significant (see below for list of these measures). This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that the construction measures and additional mitigation measures are implemented in conjunction with the proposed project. In addition to the measures identified herein, permitting agencies, such as the U.S. Department of Agriculture, Forest Service, California Department of Fish and Wildlife, North Coast Regional Water Quality Control Board, and U.S. Army Corps of Engineers, may identify additional measures to implement as part of the permits they issue, and those measures will also need to be implemented in conjunction with the proposed project and be monitored to ensure implementation. Monitoring and reporting requirements will be identified in the respective permits.

The County, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. The County will designate a staff member to manage the MMRP. Duties of the staff member responsible for plan coordination will include conducting routine inspections and reporting activities, coordinating with the project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects that may result in significant impacts. The reporting and monitoring plans must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of project approval.

Format of This Plan

The MMRP describes the construction measures included in the proposed project and the mitigation measures identified in the EIR. A corresponding impact statement is included with each mitigation measure to identify the impact that requires mitigation. Mitigation measures are followed by an

implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring implementation of the measure.

Implementation of mitigation measures is ultimately the responsibility of the County; during construction, the delegated responsibility is shared by the construction contractor. Each mitigation measure in this plan contains a “Verified By” signature line, which will be signed by the County’s designated MMRP manager when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

Noncompliance Complaints

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

Measures Included in the Proposed Project

The construction contractor(s) will be responsible for compliance with all applicable rules, regulations, and ordinances associated with project activities and for implementing construction-related measures to avoid or minimize adverse environmental impacts. Construction specifications will be in accordance with Caltrans Standard Specifications and Special Provisions in force at the time the construction contract is awarded. The County has identified the standard construction measures listed below that will be implemented during each construction phase of the proposed project. The contractor will be responsible for complying with and implementing these measures during construction in addition to the mitigation measures listed in the next section, and the County will be responsible for enforcing the measures and monitoring their implementation.

Borrow Areas/Stockpiles

Stockpile Measure 1. Cut and fill quantities for the entire project will be balanced to the extent feasible. Fill material will be acquired from cuts within the project area. Excess spoils generated by cuts during one phase may be saved for a later phase, although the design team will attempt to balance each phase.

Implementation: Engineer will attempt to balance cut and fill quantities to the extent possible.

Timing: During design

Verified By: _____ **Date:** _____
County MMRP Manager

Stockpile Measure 2. If materials need to be stockpiled for a later phase, they will be piled in a flat, unvegetated area that is already being used for similar purposes by the County Department of Transportation, California Department of Transportation (Caltrans), or the U.S. Department of Agriculture, Forest Service (Forest Service) in the general vicinity.

Implementation: County identifies suitable stockpile site(s) in consultation with the Forest Service and/or Caltrans.

Timing: Before construction

Verified By: _____ Date: _____
County MMRP Manager

Stockpile Measure 3. Stockpiles will be secured with tarps or bermed with soil, straw wattles, straw bales, or other devices to prevent runoff. In the event that insufficient materials are generated by project cuts, additional material will be obtained from commercial sources that are in compliance with the Surface Mining and Reclamation Act, or from excess materials derived from other highway projects in the area. No excavation will occur for the sole purpose of providing material for this project.

Implementation: Contractor secures stockpiles and places erosion control.

Timing: During construction

Verified By: _____ Date: _____
County MMRP Manager

Waste Disposal

Disposal Measure 1. Project design will endeavor to achieve balanced cut and fill and offset the need to dispose of excavated material.

Implementation: Engineer will attempt to balance cut and fill quantities to the extent possible.

Timing: During design

Verified By: _____ Date: _____
County MMRP Manager

Disposal Measure 2. If necessary, the construction contractor will be responsible for disposing of excess excavated materials at appropriate disposal sites approved by the County or the Forest Service. The staging areas may ultimately be used for spoils disposal, if necessary and upon approval from the Forest Service or private property owner. Such use will only be allowed if it does not detract from the continued use of the property.

Implementation: County identifies suitable waste disposal site in consultation with the Forest Service.

Timing: Before construction

Verified By: _____ Date: _____
County MMRP Manager

Disposal Measure 3. Permanent spoils disposal areas will be stabilized with erosion control methods similar to those described below for fill slopes, including compaction and seeding with native grasses.

Debris from construction and staging areas will be kept out of Hayfork Creek and other streams. All debris will be disposed of offsite at a landfill or recycling facility with sufficient capacity and permits to receive the waste. Liquid construction waste will also be disposed of offsite in accordance with the Waste Management and Materials Pollution Control Best Management Practices described in the *Caltrans Construction Site Best Management Practices Manual* (California Department of Transportation 2003). Petroleum-based compounds will be contained and removed to an officially designated landfill authorized to accept that type of waste. Wastewater from construction activities will not be allowed to drain into Hayfork Creek or other drainages. The project specifications will contain requirements for the handling, storage, and cleanup of hazardous materials (e.g., petroleum-based products, cement, or other construction pollutants) in the event of an accidental spill.

Implementation: The contractor will comply with disposal measures and prevent waste and wastewater from entering drainages.

Timing: During construction

Verified By: _____ Date: _____
County MMRP Manager

Traffic Control

The contractor(s) will be responsible for controlling traffic through the project area and providing for emergency access, if necessary. Construction activities will require single lane closures and periodic closure of both lanes. In areas where the existing road is less than two lanes, periodic complete closures will sometimes be necessary.

Traffic Measure 1. A schedule for complete road closures will be worked out well in advance of construction, in consultation with the community, service providers, and emergency response personnel. The County or its contractor will notify private land owners, the Forest Service, Caltrans, emergency response providers, and others, as appropriate, of the road closure schedule and alternative access routes.

Implementation: County will meet with the community, service providers, and emergency response personnel and work out a road closure schedule.

Timing: During design

Verified By: _____ Date: _____
County MMRP Manager

Traffic Measure 2. During the periods when the road is open during the day, traffic will be controlled by pilot cars or flaggers on a single travel lane through the construction zone. At night, the road will be left with at least one lane open, with temporary traffic signals or “stop – proceed when clear” signs. Access to the private properties in the northern end of the project area and on East Fork Road will be maintained throughout the construction period, although some delays could occur. Properties at the southern end of the project area in Segment 3 will be the most affected by the closures. Special accommodations will be required of the contractor to ensure that residents of this area are allowed access in and out of their properties with minimal delay (no more than 30 minute) if construction takes place on both the north and south sides of their driveway.

Implementation: The contractor will provide a traffic control plan prior to the start of construction. For Segment 3, the plan will include provisions for accessing the private properties in that segment.

Timing: Before construction

Verified By: _____ Date: _____
County MMRP Manager

Implementation: Contractor shall implement traffic control measures according to the approved plan.

Timing: During construction

Verified By: _____ Date: _____
County MMRP Manager

Instream Construction

Instream Measure 1. Instream construction activities in tributaries to upper Hayfork Creek will be limited to the greatest extent practicable, but will include excavation and removal of existing culverts and associated structures, installation of new culverts, downspouts, outlet protection, or energy dissipaters to reduce the effects of streambed scour and bank erosion downstream of the culvert outlet; energy dissipation structures include rip-rap, drop structures, and sills. Stream channels in the work areas will need to be dewatered to facilitate work and protect water quality. A temporary dam structure will be constructed by hand using sheet plastic, sand bags, clean gravel, and rock and will be installed in the creek during the summer instream work window (i.e., at low flow). Water will be allowed to pool at the dam and will be pumped around the instream work area. Any short-term water drafting needed for construction will be done in accordance with the National Marine Fisheries Service water drafting guidelines (National Marine Fisheries Service 2001).

Implementation: The contractor will provide a diversion plan and a water drafting plan prior to the start of water drafting or construction in any flowing stream.

Timing: Before construction

Verified By: _____ Date: _____
County MMRP Manager

Implementation: Contractor shall comply with instream construction and water drafting measures included in the approved plans.

Timing: During construction

Verified By: _____ Date: _____
County MMRP Manager

Pollution Prevention and Erosion Control

Water Quality Measure 1. The contractor will comply with Best Management Practices (BMPs) described in the *Caltrans Construction Site Best Management Practices Manual* (California Department of Transportation 2003) and a Stormwater Pollution Prevention Plan (SWPPP) prepared by either the County or the contractor. All project-specific BMPs and other pollution prevention and erosion control measures would be incorporated into the plans and specifications.

Implementation: County’s Engineers will incorporate all project specific BMPs, including those specified by Caltrans, into the project plans and specifications.

Timing: During design

Verified By: _____ Date: _____
County MMRP Manager

Water Quality Measure 2. The SWPPP will be prepared in accordance with the National Pollutant Discharge Elimination System program (Section 402[p], Clean Water Act [CWA]), administered by the State Water Resources Control Board (SWRCB) on behalf of the U.S. Environmental Protection Agency. Under the program, the County will file a Notice of Intent with the SWRCB to obtain coverage under the General Construction Activity Storm Water Permit prior to the first phase of construction. The SWPPP will describe runoff and erosion control measures to be employed; any toxic substances to be used during construction; and spill prevention and control measures, including, but not limited to, those found in the Caltrans Storm Water Quality Handbooks. These measures will incorporate the best available technology that is economically achievable and best conventional pollutant control technology pursuant to SWRCB requirements and federal law (40 CFR Parts 122-124). A monitoring program will be implemented to evaluate the effectiveness of the measures included in the SWPPP.

Implementation: County or contractor will prepare the SWPPP. County will file the Notice of Intent.

Timing: Before construction

Verified By: _____ Date: _____
County MMRP Manager

Water Quality Measure 3. The contractor will also be required to conform to the following provisions:

- Where construction areas encroach on live streams, barriers adequate to prevent the flow of muddy water into streams shall be constructed and maintained between the 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 stream channels of the live streams.
- Water containing mud or silt from aggregate washing or other operations shall be treated by filtration or retention in a settling pond 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 or be placed where they will later enter a live stream.
- 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 live stream channel where it could be washed away by high stream flows.

Additional erosion control measures, such as the following, will also be implemented during construction:

- limit ground-disturbing activities to the dry season;
- use sediment traps, desilting basins, and/or sediment barriers, such as silt fencing, straw bales, and wattles;
- use geotextiles, mulch, and other temporary ground covers on disturbed areas and stockpiles;
- stabilize and revegetate the right-of-way immediately after construction;
- use native or non-persistent non-native grasses for quick establishment, followed by native grasses and forbs (no noxious or invasive weed species would be used); and
- do not spray pesticides, which are prohibited by County ordinance on County projects.

Implementation: The contractor will comply with the SWPPP and implement BMPs.

Timing: During construction

Verified By: _____ **Date:** _____
County MMRP Manager

Winterization

Winterization Measure 1. Earth-moving activities (i.e., grading) would be suspended during the rainy season (typically mid-November to May 1). The construction areas would be winterized with temporary or permanent erosion control at the end of each construction season (in early November), and most equipment would be removed from the area at that time. Equipment left on site during the winter would be stored in staging areas that are not subject to inundation and do not drain to Hayfork

Creek or any tributary. In areas where construction and revegetation have not been completed by November 15, interim erosion control, consisting of quick-establishing sterile grass seed, mulch, and/or geotextiles, would be applied to the unfinished disturbed areas. Construction materials and temporary fills would be removed from within and adjacent to the creek and other drainages. Any unpaved sections of road will be surfaced with rock or temporary pavement. Erosion and sediment control measures would be maintained during the winter suspension period and would be checked daily during any 1/2-inch or greater rainfall event and every seven (7) calendar days until site stabilization is achieved or construction resumes.

Implementation: The contractor will implement winterization measures.

Timing: During construction

Verified By: _____ Date: _____
County MMRP Manager

Impacts and Associated Mitigation Measures

Impact TT-1: Construction activities could restrict or impede access to lands along Wildwood Road.

Mitigation Measure TT-1a: Require contractor to make special accommodations for residents and property owners.

In Segment 1, from Post Mile 11.6 to 11.4, and in Segment 3, from Post Mile 5.3 (Gemmill Gulch) to Post Mile 6.2 (STNF boundary–north end of private properties), maximum delays of 30 minutes will be allowed. Contractor will be required to post flag people equipped with radios at each end of the construction zone. When no cars are waiting at either end of the construction zone, construction may proceed until the first car arrives at the north or south limits of the construction area. Then, the delay timer will start. Traffic must be allowed through in both directions when the first car has waited for 30 minutes.

Implementation: The contractor will prepare and implement the traffic control plan

Timing: During construction

Effectiveness Criteria: A written traffic control plan will be in the project file. Goal is no delays that exceed 30 minutes for property owners and no complaints from property owners.

Verified By: _____ Date: _____
County MMRP Manager

Mitigation Measure TT-1b: Require contractor to make special accommodations for emergency services.

The contractor or Resident Engineer shall have radios and/or portable telephones and shall provide contact information to the Forest Service and local emergency service providers (ambulance, local

fire districts, and sheriff). Upon being contacted regarding an emergency call on Wildwood Road, the contractor or Resident Engineer shall inform the provider of the estimated time it will take to open the road and will proceed with road opening immediately. If no phone or radio contact is made, contractor shall proceed with road opening as soon as emergency vehicles arrive. The road shall be kept open (at a minimum of one lane with flag persons, signals, or signage) until the emergency is over.

Implementation: The contractor will implement these measures.

Timing: During construction

Effectiveness Criteria: A written emergency access plan will be in the project file. Goal is no delays for emergency responders and no complaints from emergency responders.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact AQ-1: Construction activities would generate emissions, including greenhouse gas emissions, and could result in violations of air quality standards.

Mitigation Measure AQ-1: Implement fugitive dust and greenhouse gas emission reduction measures.

The contractor will be required to implement a dust-control program to limit fugitive dust emissions and implement emission reduction measures for GHGs. The dust control program and GHG emission reduction measures shall include, but not be limited to, the following:

- Water inactive work areas at least twice daily on work days when soils are not naturally moist. Water shall be applied in a manner that does not result in runoff. Disturbed areas shall be covered with mulch, vegetation, rock, paving, or fabrics during extended non-working periods.
- Pursuant to the California Vehicle Code (State of California 2012), all trucks hauling soil and other loose material to and from the construction site shall be covered or should maintain at least 6 inches of freeboard (minimum vertical distance between top of load and the trailer).
- Exposed stockpiles of soil and other fine backfill material shall be watered twice daily, be covered, or have soil binders added.
- Any topsoil that is removed during construction shall be stored on site in piles not to exceed 4 feet tall to allow development of microorganisms prior to resoiling of the work area. These topsoil piles shall be clearly marked and flagged. Topsoil piles that will not be immediately returned to use shall be revegetated with a non-persistent erosion control mixture.

- Soil piles for backfill shall be marked and flagged separately from native topsoil stockpiles. These soil piles shall be surrounded by silt fencing, straw wattles, or other sediment barriers or covered unless they are to be immediately used.
- A construction traffic and parking management plan will be developed and implemented to maintain traffic flow and minimize vehicle trips. Construction workers will park in designated parking area(s) to help reduce dust emissions.
- On-site vehicles will be limited to a speed that minimizes dust emissions on unpaved roads or dirt work areas.
- All construction equipment will be maintained in proper tuning according to manufacturer's specifications. Unnecessary vehicle idling will be limited to 5 minutes.
- A publicly visible sign with the telephone number and person to contact regarding dust complaints will be posted in a publicly accessible area near the project area. The person named will respond to complaints and take corrective action within 24 hours. The telephone number of the North Coast Unified AQMD will also be visible.
- Contractors will commit to using the best available emissions control technology. The use of diesel construction equipment meeting the California Air Resources Board 1996 or newer certification standard for off-road heavy-duty diesel engines and having Tier 4 engines will be maximized to the extent feasible. Equipment may be electrified if feasible, and gasoline-powered equipment should be substituted for diesel-powered equipment when feasible, unless alternatively fueled construction equipment can be used. If the use of all equipment with Tier 4 engine standards is not feasible, the contractor should commit to using CARB and EPA-verified particulate traps, oxidation catalysts, and other appropriate controls when suitable to reduce emissions of diesel particulate matter and other pollutants during construction.
- To the extent feasible, a minimum of 50 percent of construction and demolition waste including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard will be reused and/or recycled.

Implementation: The contractor will implement a dust control program and emissions reduction measures.

Timing: During construction

Effectiveness Criteria: Goal is no dust or air quality complaints from the public to the County or to AQMD and no complaints or compliance actions from AQMD.

Verified By: _____ **Date:** _____
 County MMRP Manager

Impact BR-1: Construction activities could affect resident and special-status aquatic species and their habitat.

Mitigation Measure BR-1a: Remove fish from instream work areas and divert flows.

No equipment will be operated in a live stream. Gemmill Gulch and any other perennially flowing streams will be diverted before operating equipment to excavate in the channel and/or place culverts and rock slope protection. Prior to stream diversion, the work area will be isolated from the rest of the stream by permeable fencing materials. A qualified biologist shall salvage and relocate all aquatic life, including fish, and place them upstream or downstream outside of the fenced area. The instream diversion structure shall be installed by hand and shall direct flows into a culvert, pipe, or hose to be pumped or gravity-fed around the work area. The biologist shall check the worksite daily for stranded aquatic life until dewatering is complete.

Implementation: The contractor will install and remove water diversions. The County or contractor will hire a biologist to conduct salvage and relocation, and to monitor in-stream work.

Timing: During construction

Effectiveness Criteria: No aquatic organisms killed or injured during construction.

Verified By: _____ Date: _____
County MMRP Manager

Mitigation Measure BR-1b: Prevent impedance of fish passage.

The County will be responsible for designing the culverts to accommodate hydraulic function, including, but not limited to, incorporating the measures listed below into the design. The contractor will be responsible for installing culverts in accordance with the specifications of those designs. The contractor will also be responsible for installing them by mid-October, or earlier as specified by the National Marine Fisheries Service (NMFS), to accommodate fish passage. The following measures will be implemented:

- Any new or previously excavated gravel material placed in the channel will meet Caltrans' Gravel Cleanliness Specification #227 with a value of 85 or higher indicating the relative proportions of clay-sized material clinging to coarse aggregate and screenings. Gravel would also be completely free of oils, clay, debris, and organic material.
- Prior to mid-October (or earlier as specified by NMFS), culverts will be in place and fully functional and all equipment and temporary construction materials removed from the stream. No structure or fill shall be left where it could become a barrier to the free passage of water or the movement of fish and aquatic animals between mid-October and June 15 or after construction is complete.
- To the extent feasible, culverts will be designed to mimic natural stream processes, such that sediment transport and flood and debris conveyance occur as they would in a natural channel, consistent with the Stream Simulation Design Method. Fish passage design will be a priority

for perennial tributaries because they have the greatest potential to affect habitat connectivity. Culverts at each perennial tributary (except Gemmill Gulch) will be designed to meet the need for sediment transport, flood, and debris conveyance and will include measures to protect fish passage to the extent possible. This means that culverts will be a minimum of 3 feet in diameter and that they will be installed at the same gradient as the stream in which they are placed. Where conditions preclude embedment measures, downspouts, outlet protection, or energy dissipaters will be designed and installed to prevent changes in channel elevation below the culvert that could exceed the maximum allowable hydraulic drop.

- Hydraulic drops between the water surface in the culvert and the water surface at the culvert inlet and outlet of the adjacent channel should be avoided. Where a hydraulic drop is unavoidable, its magnitude should be evaluated for both high design flow and low design flow and will not exceed 1 foot under the high flows for adult fish or 6 inches under the low flows for juvenile fish. If a hydraulic drop occurs at the culvert outlet, a jump pool of at least 2 feet deep should be provided.
- Consistent with the Hydraulic Design method (excluding the determination of high and low fish passage designs), fish passage at Gemmill Gulch will meet the following: (1) minimum culvert width will be 3 feet; (2) culvert slope will not exceed the slope of the stream; and (3) if physically possible, the bottom of the culvert will be buried into the streambed a minimum of 20 percent of the height of the culvert below the elevation of the tail-water control point downstream of the culvert.

Implementation: The County will design culverts with consideration for the above measures.

Timing: During design

Effectiveness Criteria: A set of plans showing fish passage and flood conveyance for all culverts, and supporting hydrologic analysis shall be kept in the project files. Design incorporated into the project plans and specification. Goal is unimpeded passage through culverts for fish and other aquatic organisms.

Verified By: _____ **Date:** _____
County MMRP Manager

Implementation: The contractor will install the culverts according to the plans.

Timing: During construction

Effectiveness Criteria: Properly sized and aligned culverts with no hydraulic drops.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure BR-1c: Conduct preconstruction surveys for special-status herpetofauna and implement avoidance measures.

The County or its contractor will implement the following measures to avoid or minimize project-related impacts on foothill yellow-legged frogs, tailed frogs, and western pond turtles:

- Any project activities in perennial streams or adjacent riparian habitat will be preceded by a preconstruction survey for special-status herpetofauna and their eggs conducted by a qualified biologist within the stream and adjacent riparian habitat in the project area. Surveys will be conducted within 24 hours of any instream construction (including diversion installations) or riparian vegetation removal. If a foothill yellow-legged frog, tailed frog, or western pond turtle is found, the qualified biologist will move the animal to habitat either up or downstream of the project area. Monitoring and species removal shall continue daily until the work area is dewatered or in-stream and riparian zone construction is complete. If frog egg masses or turtle eggs are found during the survey in an area that will be disturbed, a no-disturbance buffer will be established around the eggs until the eggs hatch, as determined by a biologist. If avoidance is not practicable, the egg mass(es) or turtle eggs may be relocated to a suitable location in or near the same stream in coordination with CDFW.
- To the extent feasible, vegetation removal and grading activities within 660 feet of aquatic habitat should be scheduled outside the western pond turtle nesting period (March-August). If this is not feasible, a preconstruction survey will be conducted by a qualified biologist within 2 weeks prior to construction to locate western pond turtle nests. This survey will be conducted within 660 feet of aquatic habitat in riparian and upland areas that provide nesting habitat for western pond turtle. If a pond turtle nest is found, the biologist will flag the site and determine whether construction activities can avoid affecting the nest. In consultation with CDFW, a no-disturbance buffer zone may be established around the nest until the young have left the nest or the nest may be excavated and re-buried at a suitable location outside of the construction impact zone by a qualified biologist.
- If a foothill yellow-legged frog, tailed frog, or western pond turtle is encountered during instream or riparian zone activities, work in the vicinity will cease until appropriate corrective measures have been implemented (e.g., relocation of the animal by a qualified biologist) or it has been determined that the frog or turtle will not be harmed. Any trapped, injured, or killed frogs or turtles will be reported immediately to the CDFW.

Implementation: The County or contractor will retain a biologist for preconstruction surveys, and the contractor will implement measures to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Reports by the consulting biologist documenting monitoring. No aquatic species injured or killed during construction.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact BR-2: Construction activities could adversely affect special-status birds and mammals that nest or breed in the project area.

Mitigation Measure BR-2a: Minimize noise and tree removal and implement limited operating periods for nesting birds and special-status mammals.

The construction contractor will implement the following measures to avoid or minimize impacts on nesting birds and special-status mammals during construction activities:

- All construction equipment will be properly muffled.
- Tree removal will be minimized. Large snags and old-growth trees that are not within the project limits and that do not pose a risk to the safety of motorists will be avoided, to the extent feasible.
- Vegetation removal will be scheduled to avoid the breeding/nesting or denning seasons listed below to the extent practicable. If the breeding/nesting or denning season cannot be avoided, preconstruction and protocol-level surveys will be conducted as described in subsequent measures. If no nesting birds or special-status mammals are observed, trees and other vegetation may be removed without seasonal restrictions. Surveys for nesting birds and special-status mammals will be repeated each year if construction activities commence in subsequent years during the nesting or breeding period.
 - Northern spotted owl: February 1 to July 31
 - Other nesting birds: February 15 to August 31
 - Pacific fisher and ring-tailed cat: March 1 to July 31

Implementation: The County will put these conditions in the project specifications. The contractor will implement measures to protect special-status species.

Timing: During design and construction

Effectiveness Criteria: No trees removed during the nesting season without documentation of surveys by a biologist.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure BR-2b: Conduct preconstruction surveys for nesting raptors and other birds.

The County will retain a qualified biologist to conduct surveys during the nesting season. The construction contractor will implement avoidance measures if birds are nesting in or near the project area. Survey requirements and avoidance measures include the following:

- If construction is to occur during the breeding season, a qualified biologist will conduct preconstruction surveys of the project area and a surrounding 250-foot buffer (where accessible) for raptors and migratory birds 2 weeks prior to the initiation of construction in any given area to ensure that no nests will be disturbed during project implementation.

Surveys may be conducted concurrently with other required preconstruction surveys for special-status species.

- If an active nest more than half completed is found, a construction-free buffer zone will be established around the nest until nestlings have fledged or breeding has failed based on field verification by a qualified biologist. The size of the buffer zone will be determined by a qualified biologist in consultation with CDFW. If no active nests are identified, no further mitigation is necessary.

Implementation: The County or Contactor will retain a biologist for preconstruction surveys, the biologist will conduct the surveys and the contractor will implement measures to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Biologist's reports will be retained in the project file. Goal is no bird mortality or abandonment of fledglings during construction.

Verified By: _____ Date: _____
County MMRP Manager

Mitigation Measure BR-2c: Conduct preconstruction surveys for nesting northern spotted owls.

The County or contractor will retain a qualified biologist to conduct protocol-level surveys for northern spotted owl. Survey requirements and avoidance measures include the following:

- Construction activities that will generate sound levels ≥ 20 decibels above ambient sound levels or sound levels > 90 decibels, such as blasting, within 330 feet of nesting/roosting habitat for northern spotted owls will be conducted between August 1 and January 31, outside the spotted owl nesting season. If schedule restrictions are not feasible, construction may occur during the nesting/breeding season if protocol-level surveys reveal no active nest sites within 330 feet of the construction area (actual footprint of ground-disturbing activities). The County shall retain a qualified biologist to conduct protocol-level surveys for northern spotted owl following the U.S. Fish and Wildlife Service (2011) *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls* or current USFWS Protocol. The protocol requires six surveys between March and August for 2 years prior to construction and should be scheduled no more than 2 years in advance of the anticipated construction season. Year 2 surveys will be completed the summer/fall prior to construction, so construction may commence the following spring/summer. Surveys will be phased and would be completed only along the segment proposed for construction. The surveys will be used to detect northern spotted owls in the project area and should be conducted in the delineated functional habitats within 330 feet of the project area (North State Resources, Inc. 2013b; U.S. Fish & Wildlife Service 2013). If an owl or pair of owls is observed, the biologist should determine if an active nest site is located nearby. If a nest site is observed, the following restrictions will be in place around the site until the young have successfully fledged:

- Between February 1 and July 31, no activities allowed within 330 feet of the nest site that cause noise above 90 A-weighted decibels.
- Between March 1 and July 31, no activities allowed within 650 feet of the nest site that involve nighttime construction (0.5 hour before sunset to 0.5 hour after sunrise).
- If no surveys have been conducted, or if owls have been detected, then no blasting shall occur within 0.25 mile of suitable nesting/roosting habitat between March 1 and September 30. If no nests are observed, the restrictions will not be necessary.

Implementation: The County will retain a biologist for preconstruction surveys, and the contractor will implement measures to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Biologist reports on spotted owl surveys will be kept in the project file. Goal is no mortality of northern spotted owls or abandonment of fledglings during construction.

Verified By: _____ Date: _____
County MMRP Manager

Mitigation Measure BR-2d: Conduct surveys for denning Pacific fisher and ring-tailed cat.

The County will retain a qualified biologist to conduct surveys during the breeding season for Pacific fisher and ring-tailed cat. The construction contractor will implement avoidance measures if a potential den tree is discovered in or near the project area. Survey requirements and avoidance measures include:

- If vegetation removal is to occur during the breeding season (March 1 through July 31), a qualified biologist will survey for potential natal or maternity den trees using stand search techniques within areas slated for vegetation removal and within 375 feet of the vegetation removal area no more than 2 weeks before construction activities begin. No potential den trees will be felled within the natal denning period between March 1 and May 15. Female fishers move kits from one maternal den to another to minimize potential threats from predation and disturbance; vegetation removal is a disturbance that would cause a fisher to move her kits. During the maternal denning period (May 16 through July 31), trees that have maternal den characteristics will be retained until the day after all other trees within a 375-foot-radius have been felled.
- If no potential denning trees are observed within 375 feet of vegetation removal, these restrictions will not be necessary.

Implementation: The County will retain a biologist for preconstruction surveys, and the contractor will implement measures to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Biologist reports on Pacific fisher and ring-tailed cat surveys will be kept in the project file. Goal is no mortality of Pacific fishers or ring-tailed cats during construction.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure BR-2e: Conduct surveys for pallid bat roosts.

The County will retain a qualified biologist to conduct surveys for potential roost trees for pallid bats and coordinate with the CDFW if necessary. The construction contractor will implement avoidance measures if a potential roost tree is discovered in or near the project area. Survey requirements and avoidance measures include the following:

- If trees greater than 12 inches in diameter or snags are to be removed, a preconstruction survey for roosting bats will be conducted by a qualified biologist no more than 2 weeks prior to vegetation removal during any time of year. If a maternity roost is present, a qualified biologist will determine, in consultation with CDFW, the extent of construction-free zones to be maintained around active nurseries until the mother and young have dispersed.
- If a non-breeding bat hibernaculum is found in a tree or snag scheduled for removal, the individuals will be safely evicted, under the direction of a qualified bat biologist (as determined in consultation with CDFW), by opening the roosting area to allow air flow through the cavity. Removal of the tree or snag will be done no earlier than the following day (i.e., at least one night will be provided between initial disturbance and the demolition). This action will allow bats to leave during dark hours, which increases their chance of finding new roosts with a minimum of potential predation during daylight.

Implementation: The County will retain a biologist for preconstruction surveys, and the contractor will implement measures to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Biologist reports on pallid bat surveys will be kept in the project file. Goal is no destruction of pallid bat roosts during construction.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact BR-3: Construction activities could adversely affect plant and animal species designated as Forest Service Sensitive or Survey and Manage.

Mitigation Measure BR-3. Implement measures developed by the Forest Service to minimize effects on Forest Service Sensitive species and manage known sites of Survey and Manage species.

In addition to the measures provided to avoid and minimize effects on special-status aquatic and terrestrial species, the Forest Service will identify project-specific avoidance and mitigation measures to reduce effects on Forest Service Sensitive and Survey and Manage species that have the potential to occur in the project area. Measures prescribed by the Forest Service may include presence/absence

surveys, habitat preservation measures, or management recommendations for Survey and Manage species (e.g., avoid known sites). Habitat preservation measures include limiting ground disturbance and soil compaction; conservation of favorable temperature and moisture conditions, herbaceous plants that are important as food, litter, large downed wood, decaying plant matter, and talus rock; avoidance of herbicides, pesticides, and other chemicals; and control of non-native plants and animals.

Implementation: The County will consult with the Forest Service and incorporate Forest Service measures into project design, and the contractor will implement construction measures identified by the Forest Service to protect special-status species.

Timing: Prior to and during construction

Effectiveness Criteria: Documentation of consultation with Forest Service, and a list of their recommendations, will be kept in the project file. Goal is minimal impact to habitat for survey and manage species.

Verified By: _____ Date: _____
County MMRP Manager

Impact BR-4: Construction activities could result in a temporary or permanent loss of riparian habitat.

Mitigation Measure BR-4a: Minimize removal of riparian habitat and restore similar habitat in nearby areas.

The County will design the project to minimize impacts on riparian vegetation by incorporating the measures listed below. The construction contractor will avoid and minimize impacts on riparian trees and implement restoration practices. Measures to reduce impacts on riparian vegetation include, but are not limited to, the following:

- The width of the construction disturbance zone within the riparian habitat will be minimized through careful preconstruction planning.
- Exclusionary fencing will 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.
- Equipment and materials will be stockpiled outside of riparian habitat.
- Impacts to herbaceous cover will be offset by reseeding any affected areas, including unvegetated areas, with a suitable seed mixture post construction.
- Where possible, temporary impacts on woody riparian vegetation should be minimized by trimming trees and shrubs rather than removing entire woody plants or by cutting trees or shrubs at least 1 foot above ground level to leave root systems intact and allow more rapid regeneration following construction.

- Revegetation to mitigate for permanent impacts will occur in areas suited for restoration or enhancement to help ensure that no net loss of riparian habitat function and value occurs within the project area.
- Riparian habitat areas temporarily disturbed will be replanted using riparian species that have been recorded along Hayfork Creek in the project area, including white alder, big-leaf maple, arroyo willow, narrowleaf willow, American dogwood, Sierra plum, and western choke cherry.
- Onsite creation/restoration of riparian habitat will occur in riparian areas disturbed during project construction and the amount of habitat created/restored will be at a 3:1 ratio of new plantings per each large woody plant removed that is greater or equal to 6 inches diameter at breast height. These replanting ratios will help ensure successful establishment of at least one vigorous plant for each large woody plant removed to accommodate the project, which shall be the success standard 5 years after construction is complete in each segment.
- Plant spacing intervals will be determined as appropriate based on site conditions following construction.
- Non-native tree species removed from riparian areas during project construction will be replaced with native riparian species.

Implementation: The County will design the project to minimize loss of riparian habitat, and the contractor will implement construction measures to protect riparian habitat.

Timing: During design and construction

Effectiveness Criteria: Project plans will show project footprint and location of exclusionary fencing and stockpile areas. A specific riparian restoration plan, requiring at least 3:1 replacement of riparian vegetation will be kept in the project file. The final effectiveness criteria for the replanting will be at least one vigorous plant for each large woody plant removed to accommodate the project,.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure BR-4b: Create, restore, or enhance riparian vegetation to compensate for the permanent loss of riparian vegetation in Segment 1.

The County will develop a restoration plan that will describe the specific restoration criteria and methods for the replacement of permanently lost riparian habitat in Segment 1. A suitable restoration site will be identified in the plan and selected by the County in coordination with the respective land owner (e.g., Forest Service or a private land owner). The site will be within or near the project area and will be along Hayfork Creek in riparian areas devoid of riparian vegetation or in degraded or disturbed riparian areas as determined by a qualified biologist. The plan will also describe restoration requirements for Segments 2 and 3, as outlined in Mitigation Measure BR-4a. The success standard

required by the plan at the end of 5 years of annual monitoring will be a minimum of one living riparian tree per each riparian tree greater or equal to 6 inches diameter at breast height that is removed by the project.

Implementation: The County will develop and implement a restoration plan for loss of riparian habitat.

Timing: Prior to and after construction

Effectiveness Criteria: The riparian restoration plan, requiring at least 3:1 replacement of riparian vegetation will be kept in the project file. The final effectiveness criteria for the replanting will be at least one vigorous plant for each large woody plant removed to accommodate the project.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact BR-5: Construction activities could result in placement of fill material into waters of the United States and disturbance of wetlands.

Mitigation Measure BR-5: Compensate for the loss of waters of the United States in accordance with permit conditions provided by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife.

The County will design each segment to minimize the discharge of fill material into waters of the United States. The County will apply for the appropriate permits from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) and will comply with the conditions of each respective permit. As applicable, the contractor will comply with the permit conditions. The County or its construction contractor will implement the following measures to avoid and minimize effects on waters of the United States:

- To the extent practicable, the design of each segment would consider waters of the United States and would minimize the discharge of dredged or fill material into these features.
- Prior to any discharge of dredged or fill material into waters of the United States, including wetlands, the County will obtain appropriate authorization from the Corps (CWA Section 404 nationwide or individual permit) and the RWQCB. (CWA Section 401 water quality certification).
- Prior to any activities that would obstruct the flow of or alter the bed, channel, or bank of any perennial, intermittent, or ephemeral creeks, the County will notify the CDFW of the alteration, and, if required, the CDFW would issue a Streambed Alteration Agreement.
- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., Corps, RWQCB, and CDFW) will be implemented and completed. All measures contained in the permits or associated with agency approvals will be implemented.

- Impact on wetlands will be compensated at a ratio specified by the U.S. Army Corps of Engineers. Compensation of the loss of wetlands would be completed through on-site creation, restoration, enhancement, and/or preservation unless off-site mitigation is feasible and preferred by the Corps.
- Exclusionary fencing will be installed to mark the boundaries of all streams and wetlands that will be avoided. The fencing will be maintained throughout construction and pedestrian or vehicular entry will be prohibited during construction.
- Construction activities that will affect waters of the United States will be conducted during the dry season to minimize erosion.
- Appropriate sediment control measures to protect avoided waters of the United States will be in place prior to the onset of construction and will be monitored and maintained until construction activities have ceased. Temporary stockpiling of excavated or imported material will occur only in approved construction staging areas. Excess excavated soil will be used on site or stockpiled in an upland area and stabilized to prevent erosion into waters of the United States. Temporary stockpiles that are to remain on the site through the wet season will be protected to prevent erosion (e.g., silt fences, straw bales, covers).

Implementation: The County will design the project to minimize impacts to wetlands and other waters, submit applications for required permits, and prepare a compensatory mitigation plan to compensate for wetland impacts at the ratio specified by the Corps. The contractor will implement construction measures to minimize impacts on wetlands and other waters.

Timing: Prior to and during construction

Effectiveness Criteria: Copies of all permit applications and mitigation plan to be kept in the project file. Goal is no net loss of waters of the United States.

Verified By: _____ Date: _____
County MMRP Manager

Impact BR-6: Construction activities could introduce noxious weeds or modify habitats in the project area in a manner that would displace native plant species and increase the spread of invasive plant species.

Mitigation Measure BR-6: Implement construction measures to prevent the spread of invasive plants.

The County will require the contractor to implement the following measures to prevent the spread of invasive species in the project area:

- All equipment used for off-road construction activities will be weed-free prior to entering the project area.
- If project implementation calls for mulches or fill, they will be weed free.

- Any seed mixes or other vegetative material used for revegetation of disturbed sites will consist of locally adapted native plant materials to the extent practicable.

Implementation: The County Engineer will include the requirements in the project specifications. The contractor will implement measures to prevent the spread of invasive plants.

Timing: During design and construction

Effectiveness Criteria: Measures will be included in the project specifications. Goal is to have no noxious weeds on the project site after construction.

Verified By: _____ Date: _____
County MMRP Manager

Impact CR-1: Construction activities could disturb or damage previously undiscovered historical or archaeological resources or human remains.

Mitigation Measure CR-1a: Coordinate with the local Native American tribes prior to construction.

The County shall consult with members of the Nor-El-Muk Nation and the Wintu Education and Cultural Council before construction begins for each segment. They will be notified of the construction schedule for each segment and invited to visit the project area to view the project limits. If construction is to occur in areas considered by the Nor-El-Muk Nation or Wintu Cultural Council to be likely to contain burials or other archeological resources, then the Nation or Council may assign a representative to monitor construction in that vicinity under the provisions of a Memorandum of Agreement between the County and the Nor Rel Muk Wintu Nation. The physical limits of the areas to be monitored will be established in consultation with Nation and Council representatives prior to the commencement of construction. Contact numbers for a professional archaeologist under contract with the County, the STNF archaeologist, and the Caltrans archaeologist will be on file with the construction supervisor, Native American monitor, and other responsible individuals during construction. These individuals shall be contacted in the event resources are uncovered during construction.

Implementation: The County will include the measures in the specifications and consult and coordinate with Native American tribes, and the contractor will work with a monitor, if needed, during construction.

Timing: Prior to and during construction

Effectiveness Criteria: The mitigation provisions will be included in the specifications, and consultation with the Tribe will be in the file. Goal is the protection and appropriate handling of any unexpected historical or archaeological resources found during construction.

Verified By: _____ Date: _____
County MMRP Manager

Mitigation Measure CR-1b: Implement treatment measures and record previously undiscovered resources.

In the event that previously unidentified cultural resources are encountered during construction, all work in the immediate vicinity of the find will be halted, and the materials will be left untouched. The Trinity County Project Engineer, the STNF archaeologist the County's archaeologist and the Caltrans archaeologist shall be notified immediately. At least one of these qualified archaeologists shall evaluate the find to determine its historical or archaeological significance. If the find is determined to be a significant historical or archaeological resource, the archaeologist shall make recommendations for appropriate mitigation. Any cultural resources discovered during construction will be recorded according to accepted contemporary standards and evaluated to determine their eligibility for listing on the NRHP and CRHR. Impacts on the resources, if any, will be evaluated, and specific treatment measures will be identified in consultation with the State Historic Preservation Officer, Caltrans, and the Forest Service to determine the appropriate course of action if eligible resources would be adversely affected. Specific measures may be implemented to reduce adverse impacts, such as data recovery and curation of recovered materials or protection in place by avoiding the resource. Work in the area shall not resume until the mitigation measures have been implemented.

Implementation: The contractor will comply with cultural resources protection measures, and the County will consult with others and retain a qualified archaeologist to implement treatment measures if necessary.

Timing: During construction

Effectiveness Criteria: The mitigation provisions will be included in the specifications, and consultation with the Tribe will be in the file. Goal is the protection and appropriate handling of any unexpected historical or archaeological resources found during construction.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure CR-1c: Implement treatment measures for human remains.

In the event that previously unidentified evidence of human burial or human remains are discovered, all work in the immediate vicinity of the find will be halted, and the remains will be left untouched. The STNF archaeologist and County coroner will be notified immediately, and the Forest Service or Trinity County will notify local Native American tribes and the Native American Heritage Commission, as appropriate. Discoveries on federal lands are subject to the Native American Graves Protection and Repatriation Act. The ancestry of the remains will be determined if feasible with minimal disturbance of the remains by the coroner or a qualified archaeologist. All human remains and associated burial artifacts encountered will be protected and assessed in a respectful and dignified manner. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of such identification. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent. They will be given an opportunity to make recommendations for means of treatment of the human remains and any associated grave goods. If removal is necessary, it will be undertaken with a Native

American representative present (if appropriate), and the remains will be treated according to the provisions set forth in Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code. Work in the area shall not continue until the human remains are protected or removed according to the recommendations of the County coroner, Native American Heritage Commission, and/or the most likely descendent.

Implementation: The contractor will comply with human remains protection measures, and the County will consult with others and implement treatment measures if necessary.

Timing: During construction

Effectiveness Criteria: The mitigation provisions will be included in the specifications, and consultation with the Tribe will be in the file. Goal is the protection and appropriate handling of any unexpected historical or archaeological resources found during construction.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact HW-1: Construction activities could discharge pollutants or sediment into Hayfork Creek.

Mitigation Measure HW-1a: Implement water quality control measures during construction.

The construction contractor will be responsible for implementing BMPs identified in the project SWPPP. In addition, the County or its contractor will develop an erosion control plan in compliance with Forest Service Standards and Guidelines that identifies specific practices or techniques incorporated into the project design to minimize erosion. The BMPs outlined in the SWPPP shall be implemented during all phases of construction and will include, but not be limited to, the measures identified in the project description in combination with the following:

- Riparian and vegetative coverage shall only be minimally removed near drainages and stream road crossings during construction to prevent potential temperature increases in the streams and other water bodies. Cleared areas will be revegetated immediately following construction and before predicted rains or the rainy season.
- Temporary erosion and sediment control structures must be in place and operational at the end of each construction day during the rainy season or when rain is forecast and maintained until disturbed ground surfaces have been successfully revegetated.
- A specified buffer will be established between staging areas and stream banks or riparian areas. Sedimentation fencing or erosion and sediment control measures will be installed between staging areas and streams to avoid sediment and pollutant discharges to creeks. Riparian vegetation shall not be removed for staging purposes.

- Maintenance and refueling areas for equipment will be located a minimum of 100 feet away from the active stream channel. If equipment must be washed, washing will occur where the water cannot flow into the creek channel.
- Major ground-disturbing activities will be completed during the dry season (i.e., May 1 to November 15) to avoid stormwater sedimentation and turbidity effects to Hayfork Creek and its tributaries. Major ground-disturbing activities may occur outside the defined dry season based on a forecast of dry weather and permission from the appropriate regulatory agencies. Ground-disturbing activities will not take place when the soils are saturated.
- All instream work will be conducted from the top of the bank or existing road surface where feasible. Instream work will require the preparation of a dewatering plan.
- The construction contractor will keep on site at all times straw bales, straw wattles, silt fencing, or other similar sediment-control materials. Exposed soils will be covered with erosion blankets, straw, hydromulch, or similar ground-covering materials as soon as feasible to control wind and water erosion of exposed soils and prevent erosion and sedimentation.
- Spill containment booms will be maintained on site at all times during construction operations and/or staging or fueling of equipment.

Implementation: The water quality control measures will be in the project specifications and the contractor will be required to implement them.

Timing: During design and construction

Effectiveness Criteria: Evidence of compliance will be the measures in the specifications and implemented on the project. The goal is no discharge of sediment or toxic material into surface waters.

Verified By: _____ **Date:** _____
County MMRP Manager

Mitigation Measure HW-1b: Implement site-specific erosion control measures.

The County will incorporate site-specific erosion control measures into the project design and identify the measures on construction drawings. The measures will be identified based on the final alignment and design and the soil conditions where extensive cuts into steep slopes or extensive fill is required. In areas of high to very high erosion potential near Hayfork Creek, the following measures will be considered and incorporated into the design, as appropriate:

- minimize the cutslope area and grade the cutslope to no steeper than a 0.5:1 slope,
- use subsoil to stabilize the grade and re-contour disturbed areas,
- grade finished slopes to a stable grade,
- minimize side-cast on the fill slope and end haul excess fill,
- use approved engineered structural fill and compact to standards specified by the engineer,
- use hydromulch with a tackifier to cover cut and fill slopes and revegetate the slopes,
- armor any inboard ditches with coarse rock, and/or

- construct sediment basins on the downslope ends of inboard ditches before water crossings.

Implementation: The County will design the project to incorporate site-specific erosion control measures, and the contractor will implement the measures.

Timing: Prior to and during construction

Effectiveness Criteria: Evidence of compliance will be the measures in the specifications and implemented on the project. The goal is no erosion or discharge of sediment into surface waters.

Verified By: _____ Date: _____
County MMRP Manager

Impact HW-3: The proposed project would encroach on the floodplain of Hayfork Creek and could alter flood flows.

Mitigation Measure HW-3: Design road improvements to incorporate flood requirements for drainage structures and floodplain encroachment.

The County will conduct appropriate hydrologic and flood hazard studies to support development of the final design for each segment and ensure that FEMA and Forest Service requirements are followed and adhered to. More specifically, the final design will verify that the 100-year flood elevation is not raised by more than 0.5 foot at and near Post Miles 11.15 and 11.44 and ensure that the design of the drainage structure near Post Mile 5.34 would not result in overbank flooding. The studies shall identify specific design measures relating to the inlet and outlet elevations of the drainage structures, the road elevation, and armoring of the creek or slopes near drainage structure outlets. All drainage structures will be designed using capacity and geometry criteria to accommodate 100-year peak flows. These designs should account for landslide and woody debris potential and would reduce the risk of overbank flooding, degraded water quality, and damage to life and property. The following specific measures for drainage structures will be followed:

- All existing culverts will be replaced with new drainage structures that can accommodate the 100-year peak flow. Culvert sizes will be as recommended by a qualified hydrologist or engineer.
- The inlets of the nine key drainage features should be designed with headwalls and with a beveled edge (1.5:1) to decrease head loss as flow enters the culvert barrel, to protect the fill, and to reduce erosion potential.
- Culverts should be fitted with downspouts, outlet protection, or energy dissipators (energy dissipation structures include rip-rap, drop structures, and sills) to reduce the effects of streambed scour and bank erosion downstream of the culvert outlet.
- The culvert invert should be aligned with the channel bottom and skew angle of the stream.

- The culvert design slope will be based on surveyed measurements of the existing culvert and the channel profile survey. If the culvert is relocated, the final culvert slopes will align with the existing topography based on the profile survey of the stream course.
- Wildwood Road will need to be raised approximately 2.5 feet above its existing grade at Post Mile 5.34 (Gemmill Gulch) and 3.5 feet at Post Mile 11.67 (Gurley Gulch), if the project crosses these gulches, to maintain adequate cover over the drainage structure and to ensure that headwater and flow capacity criteria are met.
- The culverts near Post Mile 10.5 (subwatershed 7) will be replaced with 60-inch culverts with a riser and trash rack, or similar engineered solution, on the inlet of the primary culvert crossing of Wildwood Road. The secondary culvert will need to exit below the existing irrigation pipeline.
- Drainage structures at Post Miles 6.62 (subwatershed 3), 7.27 (subwatershed 4), and 9.05 (subwatershed 6) will include appropriately sized culverts (48-inch at 6.62, 60-inch at 7.27, and 72-inch at 9.05) with risers and trash racks or similar devices to deter debris jams and additional cross-road drains (e.g., ditch relief culverts) on either side of the crossings to prevent sedimentation from ditch runoff and stream flow diversion.

Implementation: The County will design the project to incorporate flood requirements, and the contractor will implement the measures.

Timing: Prior to and during construction

Effectiveness Criteria: Evidence will be appropriate sized culverts installed. Goal is no flooding or backwater effects in a 100-year storm event.

Verified By: _____ Date: _____
County MMRP Manager

Impact GS-3: The proposed project could trigger landslides along Wildwood Road.

Mitigation Measure GS-3: Incorporate slope protection measures into the project design.

During design of each segment, the County will hire a Professional Geologist or Geotechnical Engineer to prepare a landslide mitigation plan that describes the types and locations of slope repairs, surface and subsurface drainage measures, and instrumentation and monitoring requirements. The slope repairs and monitoring will be based on a detailed subsurface exploration that defines the lateral and vertical extents of each landslide that would be disturbed and the probable grading limits.

Landslide stabilization methods fall into three categories:

- geometric methods where the geometry of the hillside is changed;
- hydrogeological methods where the groundwater level is lowered or water is diverted; and
- mechanical methods where the shear strength of the unstable mass is increased using active external forces (e.g., anchors, rock, or ground nailing) or passive techniques (e.g., structural walls or reinforced ground).

Stabilization methods for landslides in the project area that could be incorporated into the mitigation plan include, but are not limited to:

- minimize cut into unstable or potentially unstable slopes;
- grade cutslope to slope;
- minimize side-cast on fill slope and end haul excess fill;
- grade slope geometry to stable shape and install mechanical slope treatments, as needed;
- use hydromulch with tackifier to cover cut and fill slopes;
- construct sediment basins on downslope end of inboard ditch before first water crossing;
- design culverts in locations of active, semi-active, or potentially unstable landslides to convey landslide debris, as necessary; and
- create benches along steep slopes, where appropriate.

Implementation: The County will design the project to incorporate slope protection measures through preparation of a landslide mitigation plan, and the contractor will implement the measures.

Timing: Prior to and during construction

Effectiveness Criteria: The County will prepare and keep on file documentation verifying the implementation of the above referenced measures.

Verified By: _____ **Date:** _____
County MMRP Manager

Impact HM-1: Construction activities could introduce hazardous materials into the environment and potentially contaminate Hayfork Creek.

Mitigation Measure HM-1: Implement spill containment measures in the event of a hazardous materials spill.

The contractor shall exercise every reasonable precaution to protect streams from pollution resulting from fuels, oils, and other harmful materials. The contractor will be required to have adequate spill containment equipment on hand at all times. All waste petroleum products and empty petroleum product containers will be disposed of properly at a recycling or disposal site legally authorized to accept that type of waste. The Trinity County Environmental Health Department, North Coast RWQCB, and California Emergency Management Agency (CalEMA 800-852-7550) must be notified immediately in the event of a release of significant quantities of hazardous materials. In the event of a release into Hayfork Creek, CDFW must also be notified.

Implementation: The contractor will implement spill containment measures.

Timing: During construction

Effectiveness Criteria: Evidence would be documentation of notification of agencies in the event of a spill. Goal is no discharge of hazardous materials to Hayfork Creek, or appropriate reporting and a quick response if there is an accidental discharge.

Verified By:

County MMRP Manager

Date:

Impact HM-2: Construction activities could increase the risk of fire hazards along Wildwood Road.

Mitigation Measure HM-2: Implement fire safety and response plans during construction.

The contractor will be required to prepare and implement a fire safety plan for construction operations to prevent and respond to fire. Construction equipment will also be equipped with fire prevention devices (e.g., spark arrestors) pursuant to Public Resources Code 4442. Water and firefighting tools (e.g. shovels, axes, fire extinguishers) will be maintained on site at all times.

The County will coordinate closely with emergency service providers before and during construction. A fire response plan will be developed in coordination with the Forest Service, Hayfork volunteer fire district, Trinity County Sheriff's Office, and others as appropriate. The plan shall establish lines of communication so that the construction crew receives notification of the need to open the road prior to the arrival of emergency vehicles at the work area, if possible. Procedures will also be established to keep emergency service providers advised of the location of construction crews, the activities going on at the time, and the estimated time to clear the road for each activity in each segment. The emergency service providers will use this information to determine the fastest way to reach an emergency site under the circumstances occurring at the time of an emergency.

Implementation:

The contractor will prepare and implement a fire safety plan, and the County will coordinate with emergency service providers and prepare a fire response plan.

Timing:

Prior to and during construction

Effectiveness Criteria:

Evidence of compliance will be the written plans. Goal is to have no fires on site, or a quick response to fires on site, and no delay for emergency vehicles responding to a fire.

Verified By:

County MMRP Manager

Date:
