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**Trinity County Resource Conservation District  
Westside Watershed Restoration Project  
Initial Study/  
Mitigated Negative Declaration**

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August 2011



**State of California  
Department of Parks and Recreation  
Off-Highway Motor Vehicle Recreation (OHMVR) Division**

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Westside Watershed Restoration Project  
Initial Study/  
Mitigated Negative Declaration

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August 2011



**Prepared for:**

State of California, Department of Parks and Recreation (CDPR)  
Off-Highway Motor Vehicle Recreation (OHMVR) Division  
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**MITIGATED NEGATIVE DECLARATION**

PROJECT: Westside Watershed Restoration Project, Shasta-Trinity National Forest (STNF)

PROJECT SPONSER: Trinity County Resource Conservation District (TCRCD)

LEAD AGENCY: California Department of Parks and Recreation (CDPR), Off-Highway Motor Vehicle Recreation (OHMVR) Division

AVAILABILITY OF DOCUMENTS: The Initial Study (IS) for this Mitigated Negative Declaration (MND) is available for review at:

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Email – jknelson@fs.fed.us
- Trinity County Resource Conservation District  
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**PROJECT DESCRIPTION**

The STNF, Hayfork Ranger District developed a series of water quality improvements in the Trinity River, South Fork Trinity River, and Cottonwood Creek watersheds on U.S. Forest Service (USFS) lands to reduce erosion related to roads. Referred to as the Westside Watershed Restoration Project (the project) was developed by the STNF to implement the Aquatic Conservation Strategy of the Northwest Forest Plan. The project involves decommissioning approximately 48 miles of roads that currently pose risks to water quality and watershed resources and that are not necessary for public or administrative access. Although the project was developed by the STNF, implementation of many aspects of the project is being proposed by the TCRCD. The project would be funded in part by a Grants and Cooperative Agreements Program grant submitted by the TCRCD, which would be approved and administered by the OHMVR Division.

**FINDINGS**

The OHMVR Division, having reviewed the IS for the proposed project, finds that:

1. The proposed project would protect and improve water quality in the STNF's watersheds, and would reduce the size of the network of USFS roads known as the National Forest Transportation System.
2. The STNF previously prepared an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), which covered the entire project, pursuant to the National Environmental Policy Act (NEPA; January 28, 2011). The analysis in the EA/FONSI

covered the following issues consistent with the requirements of California Environmental Quality Act (CEQA): watersheds (including hydrology, geology, and soils), fisheries, transportation, fire, wildlife, botany, cultural resources, economics, and environmental justice. The Environmental Checklist presented in the IS thereby incorporates the analysis of these issues from the EA/FONSI.

3. With the implementation of the USFS resource conservation measures and avoidance protocols included in the project, as well as implementation of the biology-related mitigation measure listed below, no environmental effects related to the project activities would exceed stated CEQA-related significance criteria.
4. A MND will be filed as the appropriate CEQA document of the project.

## MITIGATION MEASURES

**IMPACT:** Project activities may result in direct impacts to CRPR listed special-status plant species that may occur within and adjacent to the project area. Such impacts could include damage to aboveground plant parts, uprooting or death of underground root structures, and loss of reproductive potential for short or extended periods of time, which would be considered potentially significant. This may include adverse impacts to Koehler's stipitate rock-cress, Brandegees' eriastrum, coast fawn lily, Dudley's rush, Heckner's lewisia, South Fork Mountain lupine, white-flowered rein orchid, Tracy's sanicle, pale yellow stonecrop, Klamath Mountain catchfly, and oval-leaved viburnum.

**Mitigation Measure BIO-1:** Prior to the commencement of project activities, the location of special-status plant species shall be determined through appropriately timed surveys according to California Native Plant Society (CNPS) protocol; this shall apply to all areas of the proposed project subject to ground disturbance. Determination of potential habitat for special-status plant species, and surveys conducted to determine the presence of rare plant species shall be performed by a qualified botanist. These surveys shall be timed to cover the blooming periods of special-status plant species with the potential to occur in the area.

Any rare plants within the proposed project area shall be flagged, mapped on improvement plans, and/or fenced to protect the occupied area during project activities. Where known populations of sensitive plant species exist on proposed road segments, soil piling, and/or any other activities that could bury plants or disrupt root structures significantly shall be avoided.

**IMPACT:** The project could result in the loss and disturbance of foothill-yellow legged frog, western pond turtle, and Pacific tailed frog.

**Mitigation Measure BIO-2:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of foothill-yellow legged frog, western pond turtle, and Pacific tailed frog within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Sensitive resource areas shall be clearly mapped and marked on project maps before road decommissioning commences. These areas shall be avoided to the greatest extent possible. Immediately prior to project activities scheduled to occur within sensitive resource areas, the qualified biologist shall survey the work area and if foothill-yellow legged frog, western pond turtle, or Pacific tailed frog individuals are found, a California Department of Fish and Game (CDFG) approved biologist shall move individuals downstream to a safe distance from project activities.

**IMPACT:** The project could result in the loss and disturbance of Oregon snowshoe hare.

**Mitigation Measure BIO-3:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of any Oregon snowshoe hare breeding site within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Breeding areas shall be clearly mapped

and marked on project maps before road decommissioning commences. These areas shall be avoided until the breeding hare and offspring leave the project area.

**IMPACT:** During the course of normal activity, project operations may harass and potentially harm wildlife that enters the project site. Individuals of special-status wildlife species such as foothill-yellow legged frog, Pacific tailed frog, or Oregon snowshoe hare may become trapped within holes or trenches preventing wildlife from traveling through the project area without harm.

**Mitigation Measure BIO-4:** TCRCD shall impose the conditions defined below on all work-related personnel.

- Litter and other debris that may attract animals shall be removed from the project area daily and kept in enclosed containers when on the job site.
- No pets shall be allowed in the road decommissioning area, including staging areas.
- TCRCD's qualified biologist shall hold a tailgate environmental training program with work-related personnel. Training shall be conducted prior to commencement of project activities, to inform work-related personnel of the wildlife and aquatic resources in the project area. The training program shall include information about the locations and extent of these sensitive species and areas, methods of resource avoidance, permit conditions, and possible fines for violations of permit conditions and state or federal environmental laws. A fact sheet conveying this information shall be prepared and provided to work-related personnel and any other project personnel who may enter the activity area.
- To prevent inadvertent entrapment of animals during road decommissioning and other construction, all excavated, steep-walled holes or trenches more than two feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All equipment stored in the action area overnight shall be inspected before they are subsequently moved. If at any time a listed species is discovered, the environmental monitor shall be immediately informed. The environmental monitor shall determine if relocating the species is necessary and shall work with the U.S. Fish and Wildlife Service (USFWS) and CDFG prior to handling or relocating unless otherwise authorized.

**IMPACT:** The project could result in the loss and disturbance of Trinity bristle snail.

**Mitigation Measure BIO-5:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of Trinity bristle snail individuals and habitat within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Sensitive resource areas shall be clearly mapped and marked on project maps before road decommissioning commences. These areas shall be avoided to the greatest extent possible. If a Trinity bristle snail individual is found during project activities, a CDFG approved biologist shall capture, handle for identification (or photograph), and promptly release back into the environment in the nearest suitable habitat and under the same conditions under which they were first found so as to cause minimal trauma (desiccation) to the individual and its associated microhabitat.

**IMPACT:** Disturbances from project activities impact nesting birds (not necessarily special-status species) and could result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during an affected species' breeding season resulting in a violation of the Fish and Game Code. Protection of nesting birds would ensure this project has a less than significant impact to all nesting birds including the willow flycatcher.

**Mitigation Measure BIO-6:** Project activities are scheduled for implementation during the summer months. This schedule overlaps nesting season, February 1 through August 31. If no project activities are proposed during the nesting season, no surveys are required. If project activities are unavoidable during the nesting season, a qualified biologist shall conduct a survey within 250 feet of project disturbance areas for all nesting birds within five days prior to the proposed start of work. If active nests are not present, project activities can take place as scheduled. Additionally, if more than 5 days elapses between the initial nest search and demolition activities, it is possible for new birds to move into the project area and begin building a nest. If there is such a delay, another nest survey should be conducted. If any active nests are detected, TCRCD shall delay the removal of the tree, or shrub while the nest is occupied with eggs or young who have not yet fledged. A no-disturbance buffer zone shall be designated and maintained around the nest until a qualified biologist has determined that the young have fledged from the nest. The size of the no-disturbance zone shall be determined in consultation with CDFG. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. Woody vegetation (e.g., small trees and shrubs) shall not be removed during the nesting season for raptors and migratory birds to the extent feasible. If woody vegetation must be removed during the nesting season, the amount and extent to be removed shall be minimized to the extent feasible.

**IMPACT:** Extra noise and vibration can lead to the disturbance of roosting bats which may have a negative impact on the animals. Human disturbance can also lead to a change in humidity, temperatures, or the approach to a roost that could force the animals to change their mode of egress and/or ingress to a roost. Although temporary, such disturbance can lead to the abandonment of a maternity roost, which in most cases would be considered a significant impact.

**Mitigation Measure BIO-7:** TCRCD shall retain a qualified biologist (“bat biologist”) to conduct a pre-activity survey for all roosting bats in trees to be removed. If no roosting bats are found, no further mitigation is required. If a bat roost is found, TCRCD shall implement the following measures to avoid impacts to roosting bats.

If non-breeding bats are found in a tree to be removed, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity. Project activities should then follow at least one night after initial disturbance for airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If active maternity roosts are found in trees that will be removed as part of project implementation, removal of that tree shall commence before maternity colonies form (generally before March 1) or after young are flying (generally by July 31).

**IMPACT:** Project operations may discharge fill into wetlands or Waters of the U.S. If this occurs without compliance of Section 404 of the Clean Water Act, significant impacts may occur.

**Mitigation Measure BIO-8:** TCRCD shall consult with the U.S. Army Corps of Engineers (USACE) to assess the need for a Nationwide Permit or any other permit provided by the USACE. Certain Nationwide Permits require prior notification to the USACE.

## **BASIS OF FINDINGS**

Based on the environmental evaluation presented herein, and with the implementation of the mitigation measures listed above, the project would not cause significant adverse effects related to aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology/soils, hazards/ hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. In addition, substantial adverse effects on humans, either direct or indirect, would not occur. The project does not affect any important examples of the major

periods of California prehistory or history. Nor would the project substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. The project does not have impacts that are individually limited, but cumulatively considerable.

A copy of the IS is attached. Questions or comments regarding this MND should be submitted in writing to:

George MacDougall  
CDPR, OHMVR Division  
1725 23rd Street, Suite 200  
Sacramento, CA 95816  
gmacdougall@parks.ca.gov

Pursuant to Section 21082.1 of CEQA, the OHMVR Division has independently reviewed and analyzed the MND and IS for the proposed project and finds these documents reflect the independent judgment of the OHMVR Division.

TRINITY COUNTY RESOURCE CONSERVATION DISTRICT  
 WESTSIDE WATERSHED RESTORATION PROJECT  
 INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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## Chapter 1 INTRODUCTION

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### 1.1 INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Off-Highway Motor Vehicle Recreation (OHMVR) Division of the California Department of Parks and Recreation (CDPR). This IS/MND evaluates the potential environmental effects of the Westside Watershed Restoration Project (the project) in the Shasta-Trinity National Forest (STNF) in Trinity County, California (Figure 1, located on page 15). The project would be funded and implemented by the Trinity County Resource Conservation District (TCRCD), which was awarded Off-Highway Motor Vehicle (OHV) Trust Funds by the OHMVR Division through the Grants and Cooperative Agreements Program.

The proposed project would implement a series of water quality improvement projects involving decommissioning approximately 48 miles of roads on U.S. Forest Service (USFS) lands that currently pose risks to water quality and watershed resources due to erosion. The roads proposed for decommissioning are not necessary for public or administrative access. Project sites occur within the Trinity River and South Fork Trinity River watersheds within the Klamath River Basin and the Cottonwood Creek watershed within the Lower Sacramento River Basin (Figure 2, located on page 16). The Westside Watershed Restoration Project was developed by the STNF to implement the Aquatic Conservation Strategy of the Northwest Forest Plan. The STNF prepared a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Westside Watershed Restoration Project in January 2011. The STNF issued a Decision Notice and Finding of No Significant Impact (FONSI) on January 28, 2011, for the project. In the Decision Notice, the Acting Hayfork District Ranger (Tina Lynsky) selected Alternative 2 of the EA with a modification that removes Road 28N06 from the list of treated roads. That EA covers the entire project proposed by the TCRCD. The EA, Decision Notice, and FONSI are contained in Appendices B, C, and D.

Although the water quality improvement program was developed by the STNF, implementation of specific elements of the program is being proposed by the TCRCD using OHV Trust Funds. The OHMVR Division proposed awarding the TCRCD OHV Trust Funds in 2011 for the decommissioning of 12 miles of roads in the South Fork Trinity River watershed (2, located on page 16). The TCRCD plans to continue to seek funding for implementing additional miles of road decommissioning beginning in 2011 until all 48 miles of roads identified in the Westside Watershed Restoration Project have been treated. Funding for subsequent work may or may not come from the OHV Trust funds.

### 1.2 REGULATORY GUIDANCE

The California Environmental Quality Act (CEQA; Public Resources Code § 21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.) establish the OHMVR Division as the lead agency. The lead agency is defined in CEQA Guidelines Section 15367 as “the public agency which has the principal responsibility for carrying out or approving a project.” The lead agency decides whether an Environmental Impact Report (EIR) or Negative Declaration (ND) is required for the project and is responsible for preparing the appropriate environmental review document.

According to CEQA Guidelines Section 15070, a public agency shall prepare a proposed ND or a MND when:

1. The IS shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or,
2. The IS identifies potentially significant effects, but:

- Revisions in the project plans made before a proposed MND and IS are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
- There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Furthermore, CEQA Guidelines Section 15221 directs that when a project has already been the subject of a NEPA document, the state or local lead agency should use the NEPA document under specified conditions. That section, which addresses a “NEPA Document Ready before CEQA Document,” specifies the conditions under which a lead agency should use the NEPA document to support a CEQA decision. Specifically, Section 15221 states:

- (a) When a project will require compliance with both CEQA and NEPA, state or local agencies should use the [Environmental Impact Statement (EIS)] or [FONSI] rather than preparing an EIR or [ND] if the following two conditions occur:
  - (1) An EIS or [FONSI] will be prepared before an EIR or [ND] would otherwise be completed for the project; and
  - (2) The EIS or [FONSI] complies with the provision of these Guidelines.
- (b) Because NEPA does not require separate discussion of mitigation measures or growth inducing impacts, these points of analysis will need to be added, supplemented, or identified before the EIS can be used as an EIR.

This IS/MND has been prepared by the OHMVR Division of CDPR in accordance with CEQA and the CEQA Guidelines. The Westside Watershed Restoration EA, Decision Notice, and FONSI prepared by the STNF, dated January 28, 2011, cover the entire TCRCD project. As a result, this IS/MND relies on the previously prepared EA and FONSI for the following issues, which were addressed in that document under Alternative 2:

- Watersheds (including hydrology, geology, and soils)
- Fisheries
- Transportation
- Fire
- Wildlife
- Botany
- Cultural Resources
- Economics
- Environmental Justice

The other issues that are required to be addressed under CEQA and are included in the CEQA Environmental Checklist are specifically addressed in this document. They include:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Greenhouse Gas emissions
- Hazards and Hazardous Materials
- Land Use/ Planning
- Mineral Resources

- Noise
- Population/Housing
- Public Services
- Recreation
- Utilities/Service Systems
- Mandatory Findings of Significance

The IS/MND addresses wildlife and botany to the extent that the project areas have the potential to support state special-status species that were not addressed in the EA/FONSI. The California Department of Fish and Game (CDFG) has been consulted, and mitigation measures required to avoid or reduce significant impacts to state special-status species have been included in the IS/MND.

### **1.3 LEAD AGENCY CONTACT INFORMATION**

The OHMVR Division is providing funding for the project and is the CEQA lead agency. The contact person for the lead agency regarding the project and questions or comments regarding this IS/MND should be submitted to:

George MacDougall  
California Department of Parks and Recreation  
Off-Highway Motor Vehicle Recreation Division  
1725 23rd Street, Suite 200, Sacramento CA 95816  
(916) 324-3788  
gmacdougall@parks.ca.gov

### **1.4 PURPOSE AND DOCUMENT ORGANIZATION**

The purpose of this document is to evaluate the potential environmental effects of the Westside Watershed Restoration Project.

This document is organized as follows:

- Chapter 1 – Introduction This chapter provides an introduction to the project and describes the purpose and organization of this document.
- Chapter 2 – Project Description

This chapter describes the project location, project area, site description, objectives, and characteristics.

- Chapter 3 – Environmental Checklist and Responses

This chapter contains the Environmental Checklist that identifies the significance of potential environmental impacts (by environmental issue) and provides a brief discussion of each impact resulting from implementation of the proposed project. This chapter also contains the Mandatory Findings of Significance.

- Chapter 4 – References

This chapter identifies the references and sources used in the preparation of this IS/MND.

- Chapter 5 – Report Preparation

This chapter provides a list of those involved in the preparation of this document.

## 1.5 REQUIRED PERMITS, APPROVALS, OR AUTHORIZATIONS

### California Department of Fish and Game (CDFG)

If CDFG determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (Agreement) would be prepared. A draft agreement must be provided within 60 days (see Fish and Game Code §1603). The Agreement would include reasonable conditions necessary to protect those resources and must comply with CEQA. The applicant may proceed with the activity in accordance with the final Agreement.

CDFG regulations would not apply if the work was being funded and conducted solely by the USFS on national forest land. However, since the work is being funded by the OHMVR Division and carried out by the TCRCDD, work conducted within a stream course would require compliance with Fish and Game Code Section 1602. For more information on CDFG requirements, refer to Section 3.4 Biological Resources.

## Chapter 2 PROJECT DESCRIPTION

### 2.1 PROJECT LOCATION

The project area is defined by the boundaries of each watershed and sub watershed where activities are proposed. Project watersheds are within the Klamath River Basin via the Trinity River and South Fork Trinity River, and the Lower Sacramento River Basin via Cottonwood Creek, as shown in Figure 2 (located on page 16). Table 1 below shows proposed miles of road decommissioning by primary and sub watershed.

<b>Primary Watershed</b>	<b>Sub Watershed</b>	<b>Miles to be Decommissioned</b>
Trinity River	Stuart Fork	3.8
	Trinity Reservoir	0.4
	Canyon Creek	4.6
South Fork Trinity River	Upper South Fork Trinity River	3.1
	Middle South fork Trinity River	9.0
	Upper Hayfork Creek	13.0
	Lower Hayfork Creek	5.4
Cottonwood Creek	Middle Fork Cottonwood Creek	8.4
<b>TOTAL</b>		<b>47.7</b>

Source: STNF 2011

### 2.2 PROJECT OVERVIEW

The TCRCDD proposes to implement certain actions covered in the USFS Westside Watershed Restoration Project. The project was designed to reduce the risks to the environment associated with roads while addressing the need for a safe transportation network. Water quality improvements would be done by implementing the following actions:

- Decommission approximately 18 miles of existing unauthorized routes
- Decommission approximately 21 miles of Maintenance Level 1<sup>1</sup> roads
- Decommission approximately 9 miles of Maintenance Level 2 roads
- Restore 93 stream crossings during decommissioning

Details about each of these project components are provided in the Project Details discussion below.

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<sup>1</sup> **Definitions of road maintenance levels from the 2008 Travel Routes Data Dictionary** Maintenance Level 1: Basic Custodial Care - Assigned to intermittent service roads during time they are closed to vehicular traffic for 1 year or more. Maintenance Level 2: High Clearance Vehicles - Assigned to roads operated for use by high clearance vehicles. Maintenance Level 3: Suitable for Passenger Cars - Assigned to roads operated and maintained for travel by a prudent driver in a standard passenger car.

The area in which the project would take place encompasses 932 square miles, all of which are located on USFS lands. The actual work areas comprise roughly 60 acres. The TCRCD proposes implementing 12 miles of road decommissioning in the South Fork Trinity River watershed on USFS lands beginning in 2011 affecting 15 acres, and conducting future road decommissioning in other areas throughout the project area following completion of the initial 12 miles. It is expected that 12 miles of decommissioning would take place every year, affecting 15 acres per year, for a four year period until all 48 miles have been decommissioned; however, actual work would depend on availability of funding and could take up to eight years to complete if funding limits the work to be done only every other year.

The USFS began implementing a science-based roads analysis process (RAP) in 2001. The Westside Watershed Restoration Project was developed based on management needs and opportunities identified as part of the RAP. The RAP is used before implementing any project activity that would change the road system or affect public access to national forest lands. The RAP is used to identify little-used roads that are having negative effects on fish and water quality, or are disproportionately difficult to maintain. These roads are then targeted for improvement or for elimination through the process of decommissioning, which is designed to improve water quality, fish habitat, and other watershed resources.

Public motorized use of roads can adversely affect natural resources, including soils, water quality, and aquatic habitat, especially through the effects of sedimentation in anadromous streams when there are more roads than can be maintained. According to TCRCD's 2010 Grant Application to the OHMVRD, "unauthorized motor vehicle use, particularly OHV recreational use, has been a significant sediment contributor in the Trinity River, South Fork Trinity River, and Cottonwood Creek watersheds because there is an extensive road network in these highly erodible watersheds, which are listed as impaired due to sediment (TCRCD 2010)." The USFS has little funding for management and maintenance of such an extensive road system (TCRCD 2010). The TCRCD's proposed project would assist in achieving sustainable management of recreational access and would lead to an overall improvement of national forest infrastructure for multiple uses, including OHV recreation because the remaining roads would receive optimal maintenance.

### 2.2.1 Project Objectives

The primary objective of the project is to decommission roads, identified by the USFS through watershed analysis and NEPA process, in order to reduce sedimentation risks to downstream anadromous fish habitat within the Trinity River, South Fork Trinity River, and Cottonwood Creek watersheds and to eliminate unauthorized OHV use. Secondary objectives are listed in Table 2.

<b>Need/Objective</b>		<b>Action</b>
1	Remove stream crossing failure potential.	Remove fill and pipes at all stream crossings.
2	Restore more natural stream flow characteristics.	Match width and slope of fill removed to stream channel widths and slope.
3	Restore more natural hillslope hydrology while minimizing disturbance: <ul style="list-style-type: none"> <li>• Reduce compaction, surface runoff, erosion, and sedimentation.</li> <li>• Promote infiltration.</li> <li>• Provide a seed bed for future vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove cross pipes when the benefits of removal exceed the disturbance associated with the removal. Pipes would be left in place only when/where overall objectives for watershed improvement can be met.</li> <li>• Otherwise crush and leave in place cross drain pipes.</li> <li>• Block inlet and prevent flow through the pipe</li> </ul>

Table 2. Decommissioning Objectives and Actions		
Need/Objective	Action	
	and/or down any remaining ditch. <ul style="list-style-type: none"> <li>• Pull roadside berms and as much road fill as feasible into the road cut, placing it along cut banks.</li> <li>• Out-slope and compact the excavated material to a 3 to 5% slope.</li> <li>• Subsoil (till) road prism* along outsloped, crowned or along road sections where fill volume is insufficient to outslope the road. Avoid subsoiling in areas infested with non-native invasive plants, areas where tree root systems could be damaged, and areas with rocky soils.</li> </ul>	
4	Reduce soil erosion by providing ground cover. Promote recovery of new vegetation.	Seed and mulch (using materials selected through consultation with a botanist) all stream crossings and other areas where slopes are steep and soils are disturbed.
6	Provide impediments to flow and sediment, discourage use of old road bed, and provide for enriched soil resources.	Stockpile large logs or hazard trees that are encountered along decommissioned routes to place on the contour in areas of disturbance. Logs impede sediment flow, provide for flow dispersal, and break down over time to enrich soil resources.
7	Prevent and discourage future vehicle traffic into restored areas.	Create an earthen berm at the start of the road or decommissioned road segment. Where needed, re-contour the start of the road to further reduce probability of access. Use of logs on contours will also discourage use.
*The road prism is the area of the ground containing the road surface, cut slope and fill slope.		

Source: STNF 2011

## 2.2.2 Project Details

### Road Decommissioning and Restoration

Road decommissioning would consist of removing the existing road bed along the stretch of road to be decommissioned. This would be done through the excavation of road fill at stream, swale, and spring crossings, and correcting hydrologic flow patterns along the entire length of roadway. Following decommissioning all disturbed areas would be seeded with native grass and forb seed. Riparian species would be used at stream, swale, and spring crossings. The 24 road segments identified for decommissioning would be restored to pre-road conditions.

More specifically, decommissioning would involve the following activities:

- Removing culverts and fill from stream crossings
- Deep ripping the road surface
- Pulling road fill from the downhill side onto the road surface to fill inboard ditches and to modify the road surface so that it slopes outward towards the downhill side (approximately a 3 to 5 percent slope)
- Pulling culverts and pipes (some pipes that drain inboard ditches would be crushed and left in place to minimize disturbance)

- Installing rolling dips where appropriate, and placing a log or berm at the entrance to the road to prevent access
- Treating critically disturbed areas with native seed and mulch and revegetating with container native riparian species
- Installing signage as appropriate
- Monitoring project effectiveness

Only the road prism would be disturbed during decommissioning. Road fill that is pulled onto the surface of the road primarily comes from the first 10 to 15 feet of fill downhill of the road bed, but in some cases a greater amount of fill from a greater distance downhill would be replaced onto the road surface. When pulling fill, no trees would be removed or disturbed greater than 14 inches in diameter at breast height (dbh). In areas where trees larger than 14 inches dbh occur on the road fill, no fill would be pulled from near the tree.

Three examples of typical stream crossing excavation work are shown in “before, during, and after” photographs taken in August 2009 by the TCRCD are shown in Figure 3, located on page 17. Note that “CMP” in the figure refers to corrugated metal pipe.

### Project Phasing

The initial road decommissioning work would take place on STNF lands within the South Fork Trinity River watershed (Figure 2, located on page 16). Work would take place on twenty-four separate road segments within the four sub-watersheds listed in Table 1 (Middle and South Fork Trinity River, and Upper and Lower Hayfork Creek). The road segments and lengths are listed in Table 3. A list of all 48 miles of road segments to be treated over the next 4 to 8 years is contained in Appendix A, and shown in Figures 4, 5, and 6, located on pages 20 to 22.

<b>Table 3. List of Project Road Segments, Lengths, and Treatment for 2011</b>			
<b>Road Identification #</b>	<b>Length in Miles</b>	<b>Current Operational Maintenance Level</b>	<b>Proposed Treatment</b>
<b>SMOKEY CREEK ROADS ANALYSIS PROCESS AREA</b>			
28N31A	0.7000	1 – Basic Custodial Care (Closed)	Decommission
28N71A	0.4000	2 – High Clearance Vehicles	Decommission
29N48A	0.6000	1 – Basic Custodial Care (Closed)	Decommission
29N56	0.3000	1 – Basic Custodial Care (Closed)	Decommission
29N56A	0.3000	1 – Basic Custodial Care (Closed)	Decommission
29N58K	0.2000	1 – Basic Custodial Care (Closed)	Decommission
29N62D	0.3000	1 – Basic Custodial Care (Closed)	Decommission
U29N51A	0.3000	1 – Basic Custodial Care (Closed)	Decommission
<b>Total</b>	<b>3.1</b>		
<b>RATTLESNAKE CREEK ROADS ANALYSIS PROCESS AREA</b>			

<b>Table 3. List of Project Road Segments, Lengths, and Treatment for 2011</b>			
<b>Road Identification #</b>	<b>Length in Miles</b>	<b>Current Operational Maintenance Level</b>	<b>Proposed Treatment</b>
1S28C	0.6000	1 – Basic Custodial Care (Closed)	Decommission
1S37	0.9000	1 – Basic Custodial Care (Closed)	Decommission
1S39A	0.4000	1 – Basic Custodial Care (Closed)	Decommission
29N58K	0.2000	1 – Basic Custodial Care (Closed)	Decommission
29N58H	0.6000	1 – Basic Custodial Care (Closed)	Decommission
29N68A	0.5000	1 – Basic Custodial Care (Closed)	Decommission
29N68B	0.5000	1 – Basic Custodial Care (Closed)	Decommission
29N81	0.6000	1 – Basic Custodial Care (Closed)	Decommission
29N81A	0.4000	1 – Basic Custodial Care (Closed)	Decommission
30N28A	0.2000	1 – Basic Custodial Care (Closed)	Decommission
30N28B	0.4000	1 – Basic Custodial Care (Closed)	Decommission
30N50A	1.5000	2 – High Clearance Vehicles	Decommission
30N53A	0.3000	1 – Basic Custodial Care (Closed)	Decommission
30N53B	0.5000	1 – Basic Custodial Care (Closed)	Decommission
30N57A	0.2000	1 – Basic Custodial Care (Closed)	Decommission
U1S29	1.2000	1 – Basic Custodial Care (Closed)	Decommission
<b>Total</b>	<b>9.1</b>		
<b>GRAND TOTAL</b>	<b>12.1</b>		

Source: STNF 2011

### 2.2.3 Project Monitoring and Evaluation

#### Monitoring

Project implementation and effectiveness monitoring would be used to determine how well objectives are being met and to document project effects on the environment. The USFS would assist the TCRCDD by monitoring this project during and after its implementation to ensure that objectives are being met and to gather information used to improve the effectiveness of future projects. Information gathered in the monitoring plan would also be used to gauge appropriateness and timing of any future entries and necessity of follow-up rehabilitation

measures. The Best Management Practices Evaluation Program (BMPEP) would be used to detect and measure the impacts of implementation. The project sites would be visited during and after implementation. Post-project monitoring would occur one and three years after project completion and/or after a large storm event. The monitoring would be used to detect and identify the needed corrections for long-term project success. USFS would also conduct best management practice (BMP) monitoring of TCRCD work on national forest lands.

Project implementation and effectiveness monitoring methods would be used to measure short- and long-term project success. The objectives are to evaluate the implementation and effectiveness of the treatments that were prescribed for road decommissioning and to evaluate if federal and state BMP and water quality objectives are met. Monitoring would also attempt to measure the long-term improvement to watershed condition. Monitoring measures to determine the success of ecosystem management objectives include:

- Photo Points: before, during, after implementation, and after large storm event
- Void measurement: CDFG California Salmonid Stream Habitat Restoration Manual (length, width, and depth)

Signs would be posted and volunteers would be requested to report any illegal activity to the USFS. USFS employees regularly patrol this area to check for illegal OHV activity. The roads that are being addressed by the project would be recontoured to pre-road condition and made inaccessible to OHV use, unless otherwise approved. Rock barriers would be used where necessary.

### **2.3 EQUIPMENT USAGE AND PROJECT SCHEDULE**

During each year of project implementation, the contactors would utilize the following number and type of heavy equipment: one excavator (315), one dozer (D4/D5), and one dump truck. A water truck would also be on site for fire protection and dust control purposes.

During a work day, both the excavator and dozer would be used simultaneously most of the day (up to eight hours). The dump truck would be used an average of three hours daily. The water truck would run an average 0.5 hours a day. Typically about 1/3 of an acre of ground would be disturbed each work day, but under a “worst case” scenario, as many as 2.5 acres would be disturbed (two miles of 10-foot wide road).

None of the spoil material would be taken off site; rather, it would be placed less than 1,500 feet from the source at a location determined in advance of the work at a specific site. Spoil material is rarely if ever exported off the road that is being decommissioned.

The work schedule for this project would be Monday-Friday from 7:00 AM to 5:00 PM.

Under the “typical” scenario, the duration of the work is expected to be approximately 45 working days. Under the worst case scenario the number of working days would be reduced until all 12 miles are treated.

The initial 12 miles of decommissioning is expected to be implemented during the summer of 2011 and would affect 15 acres of ground. Follow up monitoring would take place over the summers following implementation. Future work would take place following year 2011 with as many as 12 miles treated every year thereafter until all 48 miles have been decommissioned. Monitoring would take place the first year after implementation and then again 3-5 years after, and after any significant episodic storm events.

### **2.4 BMPS INCORPORATED INTO THE PROJECT**

The following BMPs have been incorporated into the project and would be implemented as needed depending on the site conditions.

## **GEOLOGY**

### **Consult with a geologist if any of the following is encountered:**

- Excessive side cast
- Incompetent bedrock
- Tension cracks; potential for a large failure
- The presence of seepage water through fill/sidecast
- Organic debris incorporated in fill

### **Strategies for site stabilization**

- Revegetate disturbed sites (seed with grasses or forbs utilizing a forest botanist approved mix and plant tree seedlings where available).
- Provide ground cover by mulching with weed-free rice straw, woodchips, or approved fine slash to achieve 1.5 -2 tons/acre of cover.
- Effective ground cover is between 50 and 70%, except on granitic soils it should be greater than 90%.
- 50% of ground cover occurs as organic matter (duff, plant leaves/needles, <3 inch diameter fine slash, etc.).
- Energy dissipaters (rock rip rap, mulch, straw waddles, etc.) are required where concentrated surface flow would otherwise result in sediment transport.
- Stockpile and replace existing down coarse woody debris (CWD) on disturbed slopes whenever possible.
- Retain 30-50% of existing surface duff mat (R5 SQS 2509.18-95-1).

## **HYDROLOGY**

### **Consult with a hydrologist or geologist if the following is encountered:**

- If channel is vertically unstable (significantly aggraded above or downcut below), consult with geologist or hydrologist to ensure adequate grade controls are in place to prevent excessive or chronic sediment introduction.
- Lack of adequate drainage

### **Strategies for cutbanks, stream crossing fills, and berms**

- Stream crossings are removed, and fill is generally placed along cutbanks to create outsloping roads.
- Cutbank overhangs are removed.
- Culvert removal consists of excavation to pre-road construction level of channel, removal of culvert, and pulling fill back until natural channel width is reestablished.
- Remove organic debris from fill.
- Dispose of unsuitable slide and waste material in relatively flat stable areas away from stream courses.

### **Strategies to promote infiltration/minimize surface runoff**

- Rip old roadbeds and compacted soils (with winged sub-soiler to 18 inches deep).

**Strategies for surface drainage**

- Remove berms or provide breaks in earth mass to allow dispersal of surface flow.
- Disperse surface flow onto stable slopes with vegetation or rip-rap protection.
- Insure that inboard ditch relief is provided by outsloping, maintaining, or adding dips to disperse surface runoff.
- Provide drainage to prevent ponding water.

**Strategies to address stream flow**

- Isolate construction sites from stream flow before removing a culvert and performing work inside the stream channel. The work site may be completely dewatered or the stream may be rerouted within the channel.

**BIOLOGY****Consult with a botanist for the following:**

- Survey all perennial streams for threatened, endangered, and sensitive species or noxious weed species or assume occupancy.
- Survey for sensitive serpentinite-outcrop-loving sensitive plants or assume occupancy in these areas.
- Do not remove trees greater than 10 inches dbh when pulling road fill onto road surface.
- Where known populations of sensitive plant species exist on proposed road segments, soil piling, and/or any other activities that could bury plants or disrupt root structures significantly will be avoided.
- Where known populations of spotted or diffuse knapweed exist adjacent to project roads, roads will be individually evaluated to determine the least amount of soil disturbance that would still allow purpose and need to be met.
- The number of service vehicles used in monitoring or implementing treatments will be kept to a minimum to minimize spread of noxious weeds.
- When vehicles park on the side of the road, when possible sites will be chosen where little or no vegetation is present to minimize spread of noxious weed.
- Brief equipment operators of the need to minimize disturbance to existing vegetation within the road clearing limits, at stream crossings, and approved disposal sites to the extent necessary to restore hydrologic function. (Minimize turns.)
- Mechanical equipment is generally restricted to slopes less than 35%.
- Clean equipment to remove noxious weeds and petroleum residues: 1) prior to all work and 2) again after working in any areas containing noxious weeds.

**Consult with a wildlife biologist for the following:**

- Survey for northern spotted owls for roads within ¼ mile of suitable nesting habitat or historic activity centers, or implement a limited operating period (LOP) in these areas from February 1 through July 9 to prevent noise disturbance of nests.
- Survey for sensitive species within suitable habitat prior to disturbance.
- Implement an LOP from February 1 to July 9 for northern spotted owl in suitable habitat unless protocol surveys determine no owls to be in the area.
- Implement an LOP from February 1 to August 15 within ½ mile from northern goshawk and peregrine falcon nests.

- Implement an LOP from January 1 to August 15 within ½ mile from bald eagle nest.
- Project design features will be used to reduce or eliminate impacts to USFS Sensitive plant species known to exist or have potential to exist in the proposed project area. These include deferring treatments on road segments that have known populations of Niles' or Stebbins' madia until after July 1 to allow seed set and dispersal.

**Consult with a fisheries biologist for the following:**

- Isolate construction sites from stream flow before removing a culvert and performing work inside the stream channel. The work site may be completely dewatered or the stream may be rerouted within the channel.
- When water is drafted from Pacific salmonid bearing stream reaches, follow NOAA National Marine Fisheries Service (NOAA Fisheries Service) Water Drafting Specifications (NOAA Fisheries 2001).
- When activities are proposed within a stream channel that may cause significant disturbance to coho salmon, a biologist will snorkel the work area to look for individuals prior to dewatering to encourage them to move out of the area and to estimate the number of individuals potentially affected.

**CULTURAL RESOURCES****Consult with an archeologist for the following:**

- Flag any archeological resources that could be impacted by proposed restoration activities.
- Determine where archeological site integrity is compromised if additional crossings or access is needed in specific areas. If these areas occur, inform archeologist to provide onsite monitoring during activities.

**General protection measures**

- Implement all applicable BMPs.
- Document daily monitoring related to BMP implementation and effectiveness especially any additional corrective actions needed. Daily diaries or BMP forms can be used to provide this documentation.

**Timing**

- Ground-based mechanical equipment can operate on fine-textured soils (non-rocky) when the soils are dry down to eight inches (typically June to late September).
- Implement LOP from October 15 to April 15th. Activities are permitted on soils with compaction hazard ratings of less than high with restrictions. Seek consultation with earth scientist for further clarification.
- No ground disturbing wet weather operations on soils with severe or high compaction hazard.
- Erosion control measures will be in place by October 1.

**Mechanized ground based equipment limitations**

- Brief equipment operators of the need to minimize disturbance to existing vegetation within the road clearing limits, at stream crossings, and approved disposal sites to the extent necessary to restore hydrologic function (e.g., minimize turns).
- Mechanical equipment is generally restricted to slopes less than 35%.

- Implement an LOP from October 15 to April 15th. Activities are permitted on soils with compaction hazard ratings of less than high with restrictions. Seek consultation with earth scientist for further clarification.
- Clean equipment to remove noxious weeds and petroleum residues: 1) prior to all work and 2) again after working in any areas containing noxious weeds.
- Areas of historic value that could be impacted by activities will be flagged and equipment restricted from these areas.
- In areas with sensitive snail species, do not compact soil, disturb herbaceous vegetation, degrade water quality, reduce woody debris, reduce canopy cover, or disturb ground cover.

### **Fueling**

- No fueling/refueling of mechanical equipment such as chainsaws will occur within 100 feet of any flowing watercourse or intermittent drainage.
- Fueling and servicing of vehicles used for proposed activities will be done outside of any flowing watercourse or intermittent drainage.

### **Hazardous spills**

- Any hazardous spills will be immediately cleaned up.
- Report any chemical spills to the district ranger and fisheries biologist immediately.
- NOAA Fisheries Service will be notified for emergency consultation and re-initiate Endangered Species Act consultation if warranted.

Figure 1 – Regional Location

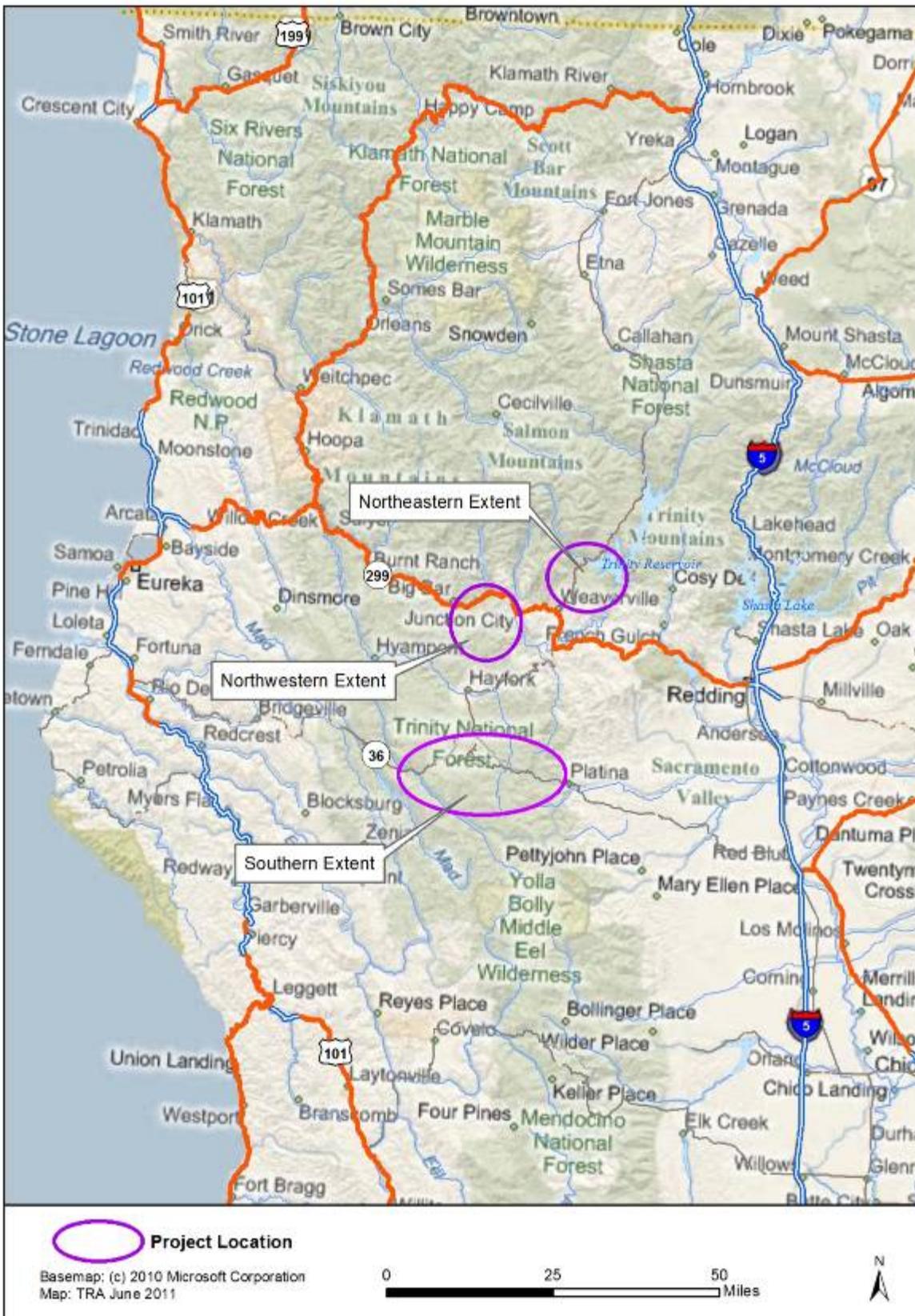
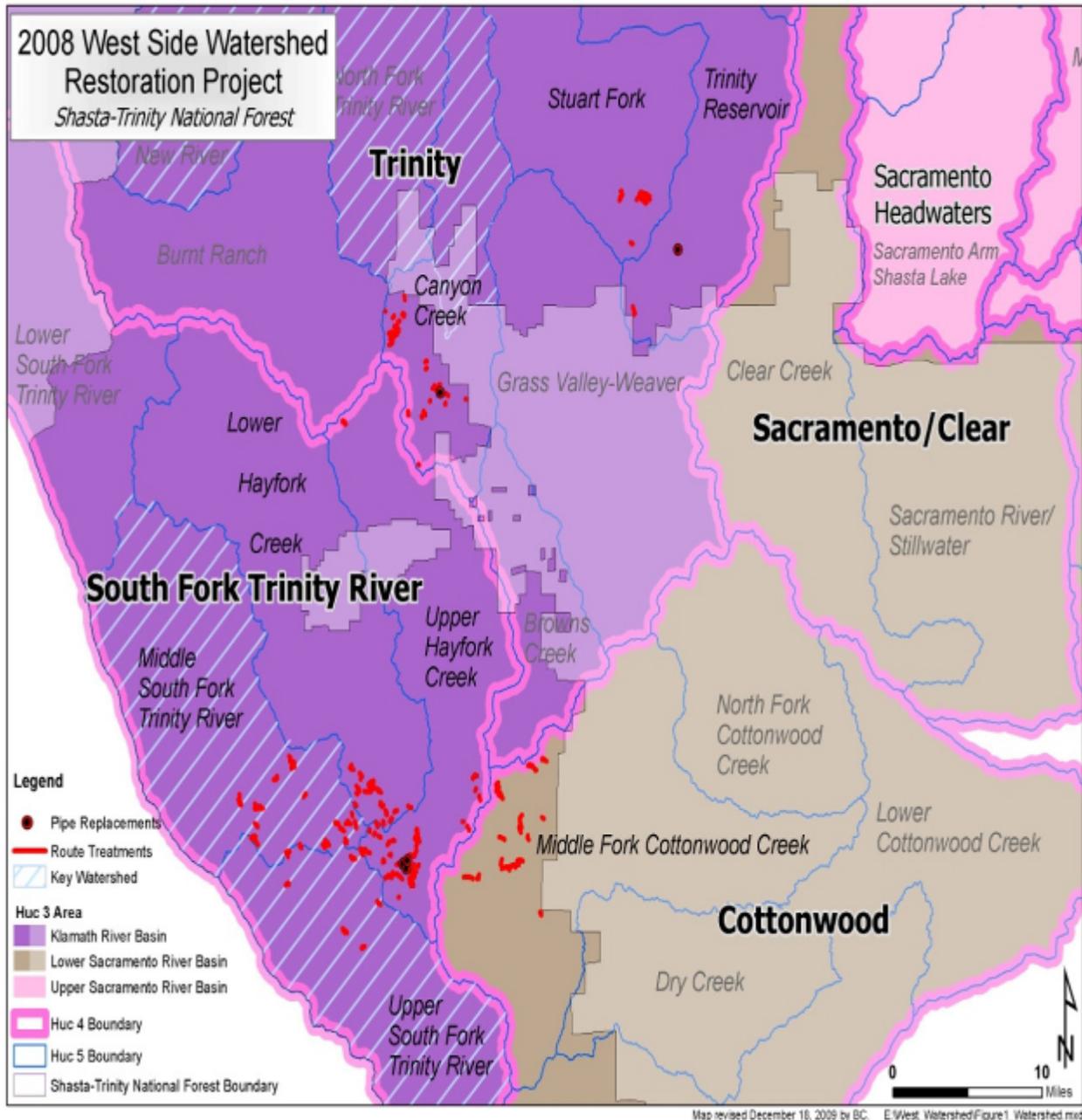


Figure 2 – Location of All Treatments by Watershed



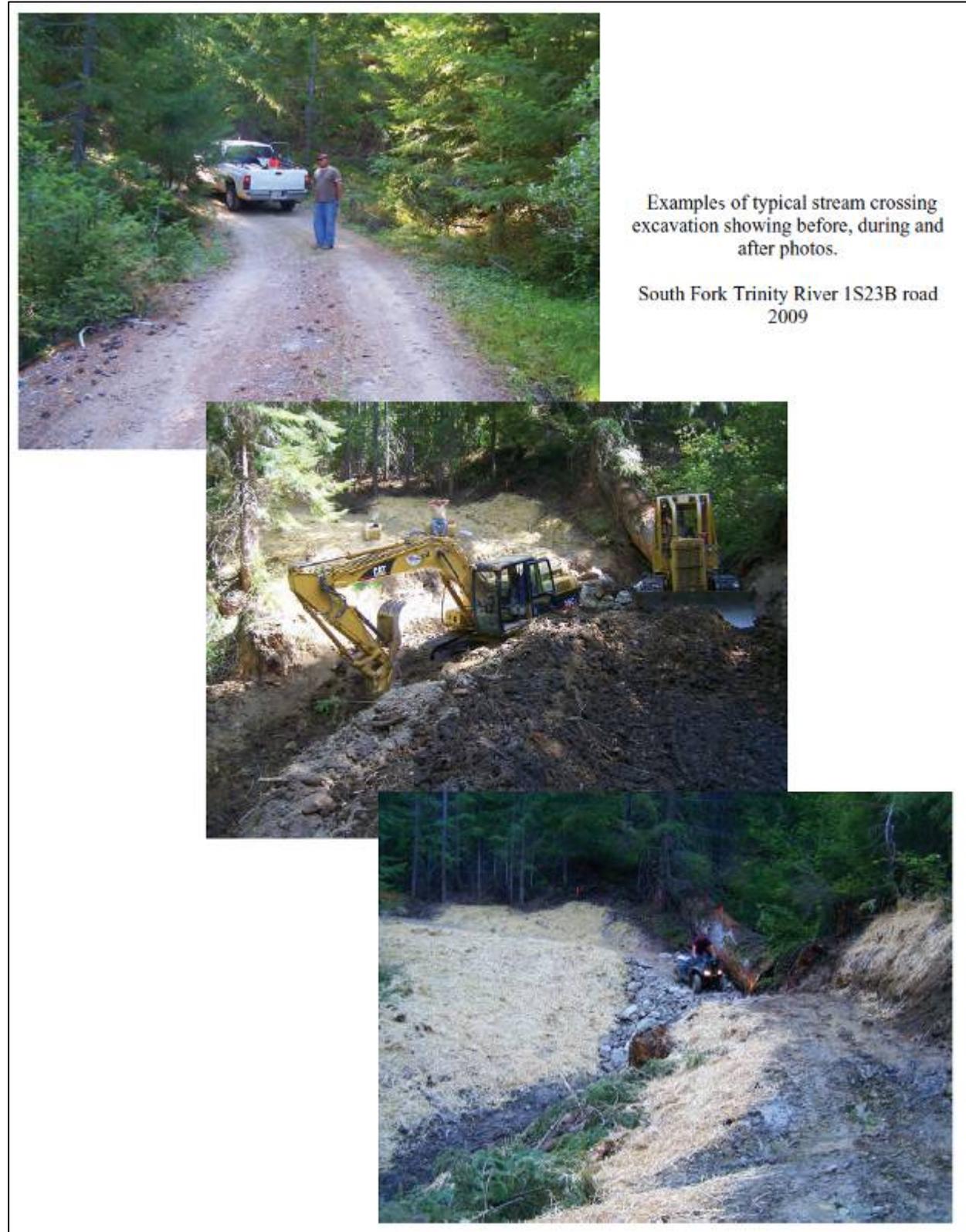
Source: Shasta-Trinity National Forest (USFS 2011a).

Notes:

Pipe replacements shown in Figure 2 are not a part of the proposed project.

Watersheds in the United States and the Caribbean were delineated by the U.S. Geological Survey using a national standard hierarchical system based on surface hydrologic features. Each hydrologic unit is identified by a unique hydrologic code (HUC). HUC's range in size from regions to the smaller cataloging units, which are roughly equivalent to a local watershed.

**Figure 3 – Three examples of typical stream crossing excavation work showing before, during, and after photos. South Fork Trinity River, August 2009**





Before and after excavation of  
stream crossing with 24" CMP at  
Mile 0.41 of 3N19C road

View Upstream  
Pelletreau Ridge, August 2009



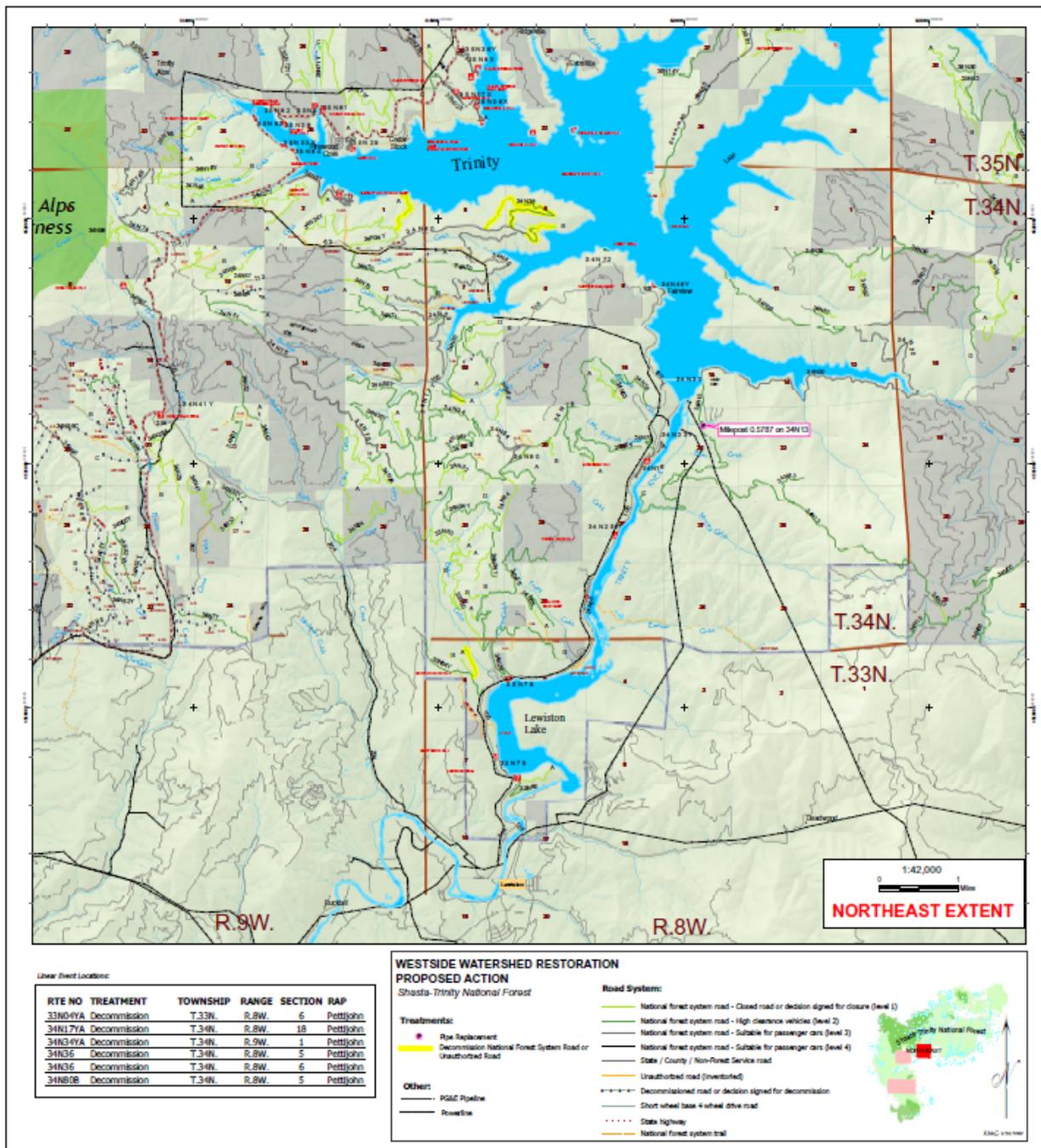


Before and after excavation of stream crossing with 24" CMP at Mile 0.41 of 3N19C road  
Pelletreau Ridge, Hidden Valley EA

August 2009

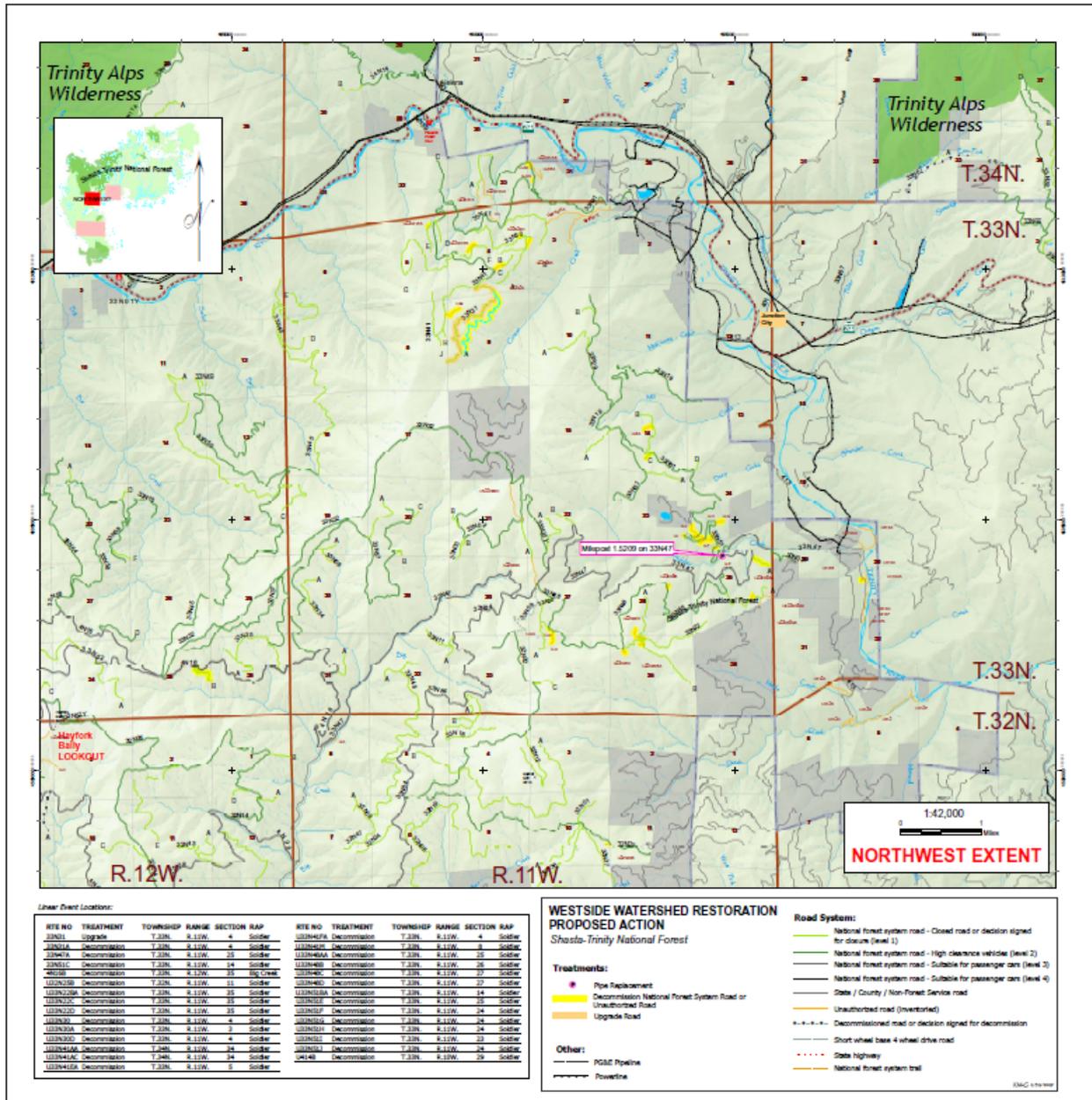


Figure 5 – All Road Segments to be Decommissioned (Northeastern Extent)



Source: Shasta-Trinity National Forest (Westside Watershed Restoration [http://www.fs.fed.us/nepa/project\\_content.php?project=25318](http://www.fs.fed.us/nepa/project_content.php?project=25318)).

Figure 6 – All Road Segments to be Decommissioned (Northwestern Extent)



Source: Shasta-Trinity National Forest (Westside Watershed Restoration [http://www.fs.fed.us/nepa/project\\_content.php?project=25318](http://www.fs.fed.us/nepa/project_content.php?project=25318)).

## Chapter 3 ENVIRONMENTAL CHECKLIST AND RESPONSES

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### PROJECT INFORMATION

1. **Project Title:** South Fork Trinity River Watershed Road Decommission Project
2. **Lead Agency Name & Address:** CDPR, OHMVR Division  
1725 23<sup>rd</sup> Street, Suite 200  
Sacramento, CA 95816
3. **Contact Person & Phone Number:** George MacDougall, OHMVR Division, Grants Administrator, (916) 324-3788
4. **Project Location:** STNF within the Trinity River, South Fork Trinity River, and Cottonwood Creek watersheds
5. **Project Sponsor Name & Address:** TCRCD, Noreen Doyas, Project Administrator, P.O. Box 1450, 1 Horseshoe Lane, Weaverville, CA 96093
6. **General Plan Designation:** As a national forest, the property is owned by the federal government and therefore general plan designations assigned by the local land use authority do not apply.
7. **Zoning:** As a national forest, the property is owned by the federal government and therefore zoning designations assigned by the local land use authority do not apply.
8. **Description of Project:** See Chapter 2 Project Description
9. **Surrounding Land Uses & Setting:** The project would take place in a national forest which comprises forested vegetation with a system of access and recreational roadways throughout the forest.
10. **Approval Required from Other Public Agencies:** CDFG

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project involving at least one impact that is a "Potentially Significant Impact" if mitigation measures are not implemented as indicated by the checklist on the following pages. Note measures contained in this chapter can avoid or minimize all impacts to less than significant levels.

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources                  | <input type="checkbox"/> Geology/Soils                      |
| <input type="checkbox"/> Greenhouse Gas Emissions        | <input type="checkbox"/> Hazards & Hazardous Materials       | <input type="checkbox"/> Hydrology/Water Quality            |
| <input type="checkbox"/> Land Use/Planning               | <input type="checkbox"/> Mineral Resources                   | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population/Housing              | <input type="checkbox"/> Public Services                     | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation/Traffic          | <input type="checkbox"/> Utilities/Service Systems           | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> None                            |  |   |

**RELATIONSHIP TO NEPA EA PREPARED IN OCTOBER 2010 and Revised in January 2011**

The Westside Watershed Restoration EA and FONSI prepared by the USFS STNF, dated October 2010 and revised in January 2011, respectively, cover the entire TCRCDD project (STNF 2010 and 2011). As a result, and in accordance with Section 15221 of the CEQA Guidelines, the IS/MND relies on the previously prepared NEPA EA and FONSI for the following issues, which were addressed in that document under Alternative 2:

- Watersheds (including hydrology, geology, and soils)
- Fisheries (federal special-status species)
- Transportation
- Fire
- Wildlife (federal special-status species)
- Botany (federal special-status species)
- Cultural Resources
- Economics
- Environmental Justice

The other issues that are required to be addressed under CEQA, and which are addressed below in the CEQA Environmental Checklist, are:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources (state special-status species)
- Greenhouse Gas emissions
- Hazards and Hazardous Materials
- Land Use/ Planning
- Mineral Resources
- Noise
- Population/Housing

- Public Services
- Recreation
- Utilities/Service Systems
- Mandatory Findings of Significance

The IS/MND also addresses wildlife and botany to the extent that the project areas have the potential to support state special-status species that were not addressed in the EA/FONSI.

**DETERMINATION:**

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

I find that, although the original scope of the proposed project could have had a significant effect on the environment, there will not be a significant effect because revisions/mitigations to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project may have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT or its functional equivalent will be prepared.

I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment. However, at least one impact has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis, as described in the report's attachments. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the impacts not sufficiently addressed in previous documents.

I find that, although the proposed project could have had a significant effect on the environment, because all potentially significant effects have been adequately analyzed in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards, and have been avoided or mitigated, pursuant to an earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, all impacts have been avoided or mitigated to a less-than-significant level and no further action is required.

\_\_\_\_\_  
Phil Jenkins, Chief, Off-Highway Motor Vehicle Recreation Division

\_\_\_\_\_  
Date

**EVALUATION OF ENVIRONMENTAL IMPACTS**

1. A brief explanation is required for all answers, except "No Impact," that are adequately supported by the information sources cited. A "No Impact" answer is adequately supported if the referenced information sources show that the impact does not apply to the project being evaluated (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on general or project-specific factors (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must consider the whole of the project-related effects, both direct and indirect, including off-site, cumulative, construction, and operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether that impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate when there is sufficient evidence that a substantial or potentially substantial adverse change may occur in any of the physical conditions within the area affected by the project that cannot be mitigated below a level of significance. If there are one or more "Potentially Significant Impact" entries, an Environmental Impact Report (EIR) is required.
4. A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures, prior to declaration of project approval, has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact with Mitigation." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR (including a General Plan) or Negative Declaration (CEQA Guidelines § 15063(c)(3)(D)). References to an earlier analysis should:
  - a) Identify the earlier analysis and state where it is available for review.
  - b) Indicate which effects from the Environmental Checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.
  - c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for this project.
6. Lead agencies are encouraged to incorporate references to information sources for potential impacts into the checklist or appendix (e.g., general plans, zoning ordinances, biological assessments). Reference to a previously prepared or outside document should include an indication of the page or pages where the statement is substantiated.
7. A source list should be appended to this document. Sources used or individuals contacted should be listed in the source list and cited in the discussion.
8. Explanation(s) of each issue should identify:
  - a) the criteria or threshold, if any, used to evaluate the significance of the impact addressed by each question **and**
  - b) the mitigation measures, if any, prescribed to reduce the impact below the level of significance.

### 3.1 AESTHETICS

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

#### 3.1.1 Environmental Setting

The STNF is dominated by montane hardwood, montane hardwood-conifer, Klamath mixed conifer, Douglas fir, and ponderosa/Jeffrey pine forests. Habitat in the immediate project area consists of disturbed roadsides, roadbeds, seasonally wet meadow, and perennial riparian forest. Minor to moderate amounts of disturbance are present in the areas of proposed road decommissioning. The time since last disturbance varies. Some areas have been undisturbed long enough for native vegetation to return and stabilize, while most have been disturbed recently enough for little or no vegetation to be present.

#### 3.1.2 Discussion

*Would the proposed project:*

**a. Have a substantial adverse effect on a scenic vista?**

**No Impact.** Some of the specific project sites contain scenic resources such as trees and rock outcroppings; however, none are located at sites that are designated as a scenic vista. Furthermore, the decommissioning of the road and trails would be temporary projects that would not change the scenic character of the project sites.

**b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact.** Some of the specific project sites contain scenic resources such as trees, rock outcroppings; however, none are within view of a state scenic highway. None of the work at the specific project sites would result in the removal of any trees, rock outcroppings, or historic buildings within view of a state scenic highway. Work to decommission roads is temporary and would not affect scenic resource or affect views from a state scenic highway.

**c. Substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less Than Significant Impact.** The decommissioning of the road and trails are meant to reduce erosion, which results in unsightly erosion gullies and bare hillsides. Removing road fill at stream crossings, re-establishing natural drainage channels, controlling water flow to reduce erosion on decommissioned road surfaces, and establishing a native vegetation cover would improve the visual character of each project site by restoring a more natural appearance.

**d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**No Impact.** The project would not create a new source of substantial light or glare affecting day or nighttime views in the area as no exterior lighting, reflective surfaces, or nighttime construction is proposed.

### 3.2 AGRICULTURE AND FOREST RESOURCES

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

\*In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

#### 3.2.1 Environmental Setting

The project is located USFS land in mountainous areas of the STNF. There is no farmland within or near the project area. Neither the project sites nor the surrounding lands contain any farmland, any lands under Williamson Act contracts, or any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as defined by the Farmland Mapping and Monitoring Program.

#### 3.2.2 Discussion

Would the proposed project:

- a. **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?**
- c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland (as defined by Government Code Section 51104(g))?**
- d. Result in the loss of forest land or conversion of forest land to non-forest use?**
- e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

**No Impact.** (Responses a-e) Although the road decommissioning work would occur in a forested area, no commercial timberland would be affected by the work. The work is temporary, and decommissioning is taking place on highly erodible roads that are no longer needed for forest access. The project would not cause the rezoning of forest or timberland. There would be no conversion of forest land to a non-forest use due to implementation of the road decommissioning project. No trees (timber resources) would be removed as a result of this project.

### 3.3 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.3.1 Regulatory Setting

Emissions from diesel-powered construction equipment are subject to federal and state emissions regulations. The proposed project would also be subject to local rules for mitigating fugitive dust and potential naturally occurring asbestos.

#### Diesel Engine Emission Standards

The U.S. Environmental Protection Agency (EPA) has established progressive emission standards for non-highway diesel engines to be implemented in a series of “tiers.” Tier 2 standards apply for equipment manufactured between 2001 and 2006. Tier 3 standards apply for equipment manufactured between 2006 and 2008. The most stringent standards, Tier 4 standards, consist of an interim and final set of standards. The standards for engines less than 75 horsepower (hp) began in 2008, the standards for engines between 76 and 174 hp begin in 2012, and the standards for engines 175 hp and greater begin in 2011. The U.S. EPA estimates that Tier 2 and Tier 3 standards will reduce ozone precursor and PM emissions from non-highway diesel vehicles by 50 and 40 percent by 2020, and that Tier 4 standards will achieve a further 90 percent NOx reduction and 95 percent PM reduction from these vehicles by 2030 (U.S. EPA1998 and 2004).

In addition, the CARB’s In-Use Off-Road Diesel Vehicles Regulation (13 CCR §2449 – 2449.3), adopted in 2007 and amended in 2010, aims to reduce emissions of NOx and PM from in-use off-road (i.e., non-highway) diesel vehicles. The regulation 1) imposed limits on engine idling and limits on adding older (typically pre-1996) off-road diesel vehicles to fleets beginning in 2009; 2) required all vehicles to be reported to CARB and labeled in 2009; and 3) required gradual fleet clean up, including replacement of older engines with newer engines and the installation of exhaust retrofits on existing equipment beginning in 2010.

## Fugitive Dust Control

NCUAQMD Regulation 1 - Air Quality Control Rules, Rule 104, *Prohibitions*, requires the use of water or chemicals as dust control during demolition and construction operations, road grading, and clearing of land.

Shasta County AQMD Rule 3:16, Fugitive, Indirect, or Non-Traditional Sources, requires the use of reasonably available control measures to control dust during construction including dust suppressants and reduced vehicle speeds.

## Naturally-Occurring Asbestos (NOA)

The October 2010 Westside Watershed Restoration EA states that 20 percent of the roads proposed for decommissioning occur in areas with soil derived from serpentinite rock, and the California Geological Survey identifies portions of the project area as underlain by ultramafic rock. Serpentinite is a metamorphic rock, derived from ultramafic rock, which is an igneous rock composed mostly of iron- and magnesium-rich minerals.

Serpentinite is a rock composed mostly of the serpentine group of minerals. The serpentine mineral group includes at least twenty different hydrous, magnesium and iron silicate minerals derived from the metamorphism of ultramafic rock. Only a few specific minerals in the serpentine group may exhibit a fibrous texture. Those minerals, such as chrysotile, are termed asbestos. Soil derived from serpentinite rock may contain asbestos.

Both the U.S. EPA and the CARB have adopted regulations to control emissions of asbestos-laden dust. The U.S. EPA's *National Emission Standard for Asbestos* (40 CFR Part 61, Subpart M) establishes inspection, notification, and asbestos emission control requirements for demolition and renovation activities. The standard defined demolition as the "wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility." Thus, this standard would not apply to the project.

The CARB's *Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations* (17 CCR §93105) applies to any road construction and maintenance or construction and grading operations on any property that is located in any area that may contain asbestos in the soil. The proposed activities would constitute a road construction project under the ATCM (Bruckner 2011). The ATCM requires the TCRCDD to notify the NCUAQMD and Shasta County AQMD at least 14 days prior to the start of activities and implement the following dust control measures:

1. Unpaved areas subject to vehicle traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos;
2. The speed of any vehicles and equipment travelling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment travelling more than 15 miles per hour from emitting dust that is visible crossing the project boundaries;
3. Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept adequately wetted, treated with a chemical dust suppressant, or covered with material that contains less than 0.25 percent asbestos; and
4. Activities must be conducted so that no track-out from any road construction project is visible on any paved roadway open to the public.

An exemption from the ATCM requirements may be granted for activities occurring in remote locations that are more than one mile from any receptor, including any hospital, school, day care center, work site, business, residence, public road, or permanent campground. The proposed

project is located more than one mile from any such receptor and would likely qualify for an exemption from the ATCM requirements.

### **3.3.2 Environmental Setting**

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

Approximately 40 of the 48 miles of roads proposed for decommissioning are located in Trinity County, within the North Coast Air Basin (NCAB); the remaining eight miles are located in Shasta County within the Sacramento Valley Air Basin (SVAB).

#### **North Coast Air Basin Air Quality**

The NCAB is an area of attainment for all federal and state ambient air quality standards (AAQS) except state suspended, or “respirable”, particulate matter (PM<sub>10</sub>) standards (CARB 2010 and U.S. EPA 2010).

The North Coast Unified Air Quality Management District (NCUAQMD) is responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the NCAB. The NCUAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The NCUAQMD currently has six regulations containing more than 60 rules designed to control and limit emissions from sources of air pollutants and administer state and federal air pollution control requirements.

In May 1995, the NCUAQMD adopted its PM<sub>10</sub> Attainment Plan. This plan describes the nature and causes of the NCUAQMD’s exceedances of the state PM<sub>10</sub> standard and identifies control measures to improve air quality and achieve state PM<sub>10</sub> air standards. These measures focus on the transportation, land use planning, and open burning (including woodstove) sources found at the time to be the primary contributors to PM<sub>10</sub> levels in the NCUAQMD (NCUAQMD 1995). In 2008, 18,783 tons of PM<sub>10</sub> were emitted within the NCAB, of which 10,238 tons was derived from unpaved road dust and 449 tons was derived from construction and demolition activities (CARB 2008).

#### **Sacramento Valley Air Basin Air Quality**

The SVAB covers all or portions of eleven counties that, for air quality planning purposes, generally make-up the SVAB’s southern Broader Sacramento Area (BSA) and northern Upper Sacramento Valley (USV) region. Within the SVAB, the BSA includes western Placer County, Sacramento County, eastern Solano County, a small area of Sutter County, and Yolo County. The USV includes all of Butte, Colusa, Glenn, Shasta, Tehama, and Yuba counties and most of Sutter County. Air quality and attainment status in the SVAB varies by county and sub-region; Shasta County is an area of attainment for all state and federal AAQS except state ozone and PM<sub>10</sub> standards (CARB 2010 and U.S. EPA 2010). Ozone and ozone precursor emissions generated in the BSA are transported into the USV and are a major contributor to ozone violations in the USV.

Nine different air quality management districts (AQMD) are responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the SVAB. The Shasta County AQMD is responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within Shasta County. The Shasta County AQMD carries out its responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The Shasta County AQMD currently has more than 70 rules designed to control and limit emissions from sources of air pollutants and administer state and federal air pollution control requirements.

In 2010, the Shasta County AQMD adopted the *Northern Sacramento Valley Planning Area 2009 Triennial Air Quality Attainment Plan*. This plan describes the nature and causes of the northern Sacramento Valley's violations of state ozone and PM<sub>10</sub> standards and identifies 18 control measures to improve air quality within the SVAB and achieve state ozone and PM<sub>10</sub> air standards (SVAQEEP 2009). In 2008, approximately 21,977 tons of ozone precursors ROG and NO<sub>x</sub> and 2,162 tons of PM<sub>10</sub> were emitted within Shasta County. Unpaved road dust accounted for approximately 5,493 tons of these PM<sub>10</sub> emissions, and construction equipment and operations (including demolition) accounted for approximately 1,971 tons of ozone precursor emissions and 456 tons of PM<sub>10</sub> emissions (CARB 2008a).

### **Sensitive Receptors**

A sensitive receptor is generically defined as a location where human populations, especially children, seniors, and sick persons, are located where there is reasonable expectation of continuous human exposure to air pollutants. These typically include residences, hospitals, and schools. There are no sensitive receptors located within 1,000 feet of project roads.

### **3.3.3 Discussion**

*Would the proposed project:*

#### **a. Conflict with or obstruct implementation of the applicable air quality plan?**

**Less Than Significant Impact.** The proposed project would not conflict with or obstruct implementation of the NCUAQMD's PM<sub>10</sub> Attainment Plan nor Shasta County AQMD's Northern Sacramento Valley Planning Area 2009 Triennial Air Quality Attainment Plan. These plans include ozone and PM<sub>10</sub> emissions from area-wide sources such as roads and construction activities, as well as mobile sources, such as off-road equipment, in its emission inventories and plans for achieving attainment of air quality standards. The project would not result in new land uses, increase urban growth, or introduce new stationary sources of air pollutants into the NCUAQMD or the Shasta County AQMD and would therefore not conflict with or obstruct an applicable air quality plan.

#### **b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

**Less Than Significant Impact.** The entire project would decommission or improve approximately 48 miles of roads (approximately 60 acres) over four separate summer construction periods. Work could take place for four summers in a row for a period of four years, or every other year for a period of eight years depending on funding available. Each construction period could last approximately 45 working days and require the use of one excavator, one dozer, and one dump truck up to eight hours per day and one water truck for up to two hours per day. Excavated stream crossings would not be transported off-site, but instead would be placed along the cutbank on the adjacent road section near the stream crossing and re-graded. Approximately 2.5 acres of land could be disturbed per day during the construction period. Note that this is the "worst case" daily disturbance estimate based on treating as much as two miles of a 10-foot wide road. Table 4 presents the project's short-term construction emissions, as estimated using the air quality emissions calculation model URBEMIS2007 Version 9.2.4.

<b>Table 4. Project Construction Emissions</b>								
<b>Scenario</b>	<b>Pollutant Emissions (lbs per day)</b>							
	<b>ROG</b>	<b>NOx</b>	<b>PM<sub>10</sub> Dust</b>	<b>PM<sub>10</sub> Exhaust</b>	<b>PM<sub>10</sub> Total</b>	<b>PM<sub>2.5</sub> Dust</b>	<b>PM<sub>2.5</sub> Exhaust</b>	<b>PM<sub>2.5</sub> Total</b>
Worst-Case Day	2.46	20.7	25.0	0.94	26.0	5.22	0.87	6.09
<b>Scenario</b>	<b>Pollutant Emissions (tons)</b>							
	<b>ROG</b>	<b>NOx</b>	<b>PM<sub>10</sub> Dust</b>	<b>PM<sub>10</sub> Exhaust</b>	<b>PM<sub>10</sub> Total</b>	<b>PM<sub>2.5</sub> Dust</b>	<b>PM<sub>2.5</sub> Exhaust</b>	<b>PM<sub>2.5</sub> Total</b>
Total Decommissioning	0.22	1.86	2.25	0.08	2.34	0.47	0.08	0.55

Source: TRA Environmental Sciences, Inc. 2011

The NCUAQMD does not maintain thresholds of significance for CEQA purposes; however, the Air Quality Element of the Shasta County General Plan contains the CEQA significance thresholds listed in Table 5. The Shasta County AQMD requires all projects to implement standard mitigation measures and projects that exceed Level “A” thresholds to implement best available mitigation measures. The Shasta County AQMD considers projects exceeding Level “B” thresholds to have a significant air quality impact.

<b>Table 5. Shasta County AQMD CEQA Significance Thresholds</b>			
<b>Threshold</b>	<b>Emissions (pounds per day)</b>		
	<b>NOx</b>	<b>ROG</b>	<b>PM<sub>10</sub></b>
Level “A” Thresholds	25	25	80
Level “B” Thresholds	137	137	137

Source: Shasta County 1995

As Table 4 shows, the decommissioning project would not exceed Shasta County AQMD Level “A” or “B” thresholds of significance and would therefore not result in a significant air quality impact. The TCRCD would implement the following basic construction management practices to further reduce the magnitude of potential construction emissions:

*Basic Construction BMPs*

1. Water all exposed surfaces (e.g., road surfaces, staging areas, soil piles, and graded areas two times per day).
2. Vehicle speeds on decommissioned roads shall not exceed 15 miles per hour.
3. All land clearing, grading, earthmoving, or excavation activities shall be suspended when average winds are expected to exceed 20 miles per hour.
4. No track-out onto a public road shall occur.
5. Require a certified mechanic to check and determine that all equipment is running in proper condition prior to construction operations.
6. Properly maintain and tune all construction equipment in accordance with manufacturer's specifications.

The project would not result in long term operational emissions and would therefore have no impact from long-term emissions.

**c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

**Less Than Significant Impact.** As discussed in a) and b) above, the project would not result in construction or operational emissions that exceed established thresholds of significance. In developing their CEQA significance thresholds, air districts typically identify the emission levels at which a project's individual emissions would be cumulative considerable. Since the project would not individually exceed any significance thresholds the project would result in less than significant cumulative air quality impacts.

**d. Expose sensitive receptors to substantial pollutant concentrations?**

**No Impact.** Project construction would occur in a remote location for approximately one month during four separate annual construction periods. The work could take place every year for four years in a row, or every other year up to a period of eight years. Construction would be short-term and intermittent in nature and construction equipment would be subject to the CARB's *In-Use Off-Road Diesel Vehicles Regulation*, which requires construction fleets to reduce their NOx and PM emission over time. The use of construction BMPs would reduce the potential for asbestos-laden dust to become airborne. In addition, there are no sensitive receptors near the proposed improvement areas. The project, therefore, would not expose sensitive receptors to substantial pollutant concentrations.

**e. Create objectionable odors affecting a substantial number of people?**

**No Impact.** Project construction would occur intermittently from 2011 to 2018 in a remote location. Potential odors generated during road decommissioning, including odors associated with fuel combustion, would not affect a substantial number of people and would not result in a significant impact.

**3.4 BIOLOGICAL RESOURCES**

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

**3.4.1 Background**

As discussed in Chapter 2.0 (Project Description), the STNF has already prepared a NEPA document in the form of an EA with a FONSI for the Westside Watershed Restoration Project. This EA, and its supporting documentation, only analyzed federal special-status species. The CEQA Guidelines allow a lead agency to use a NEPA document to support a CEQA decision; therefore, this IS/MND only analyzes state special-status species as the USFS determined a Finding of No Significant Impact to federal special-status species. Because NEPA does not require separate discussion of mitigation measures or growth inducing impacts, these points of analysis are provided in the following discussion. The discussion of the effects of the project on federal species begins on page 35 (fisheries), page 49 (wildlife), and 60 (botany) of the EA. The entire EA is contained in Appendix B.

### 3.4.2 Regulatory Setting

The Westside Watershed Restoration EA addresses the federal laws and regulations governing the project. The following state statutes would also be applicable and are considered by this IS.

#### California Endangered Species Act

The California Endangered Species Act (CESA), administered by CDFG, protects wildlife and plants listed as “threatened” or “endangered” by the California Fish and Game Commission, as well as species identified as candidates for listing. CESA restricts all persons from taking listed species except under certain circumstances. The state definition of take is similar to the federal definition, except that CESA does not prohibit indirect harm to listed species by way of habitat modification. Under CESA, an action must have a direct, demonstrable detrimental effect on individuals of the species.

CDFG maintains lists of animal species of special concern (CSSC) that serve as “watch lists.” A CSSC is not subject to the take prohibitions of CESA. The CSSC are species that are declining at a rate that could result in listing under the federal ESA or CESA and/or have historically occurred in low numbers, and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals and is intended to focus attention on the species to help avert the need for costly listing under federal and state endangered species laws. This designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them (Comrack et al. 2008).

State agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy (Fish and Game Code § 2053). Under Sections 2080.1 or 2081(b) of the California Fish and Game Code, CDFG may permit incidental take of species listed under CESA, except for species that are designated as fully protected.

#### California Fish and Game Code

The California Fish and Game Code protects a variety of species, separate from the protection afforded under CESA. The following specific statutes afford some limits on take of named species: Section 3503 (nests or eggs), 3503.5 (raptors and their nests and eggs), 3505 (egrets, osprey, and other specified birds), 3508 (game birds), 3511 (fully protected birds), 4700 (fully protected mammals), 4800 et seq. (mountain lions), 5050 (fully protected reptiles and amphibians), and 5515 (fully protected fish).

Section 3503 simply states, “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” The exceptions generally apply to species that are causing economic hardship to an industry. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted.” Section 3505 prohibits taking, selling, or purchasing egrets, osprey, and other named species or any part of such birds.

Fully protected species may not be taken or possessed except for scientific research. Various Fish and Game Code sections identify fully protected species.

#### California Native Plant Protection Act

The California Native Plant Protection Act (CNPPA) of 1977 preserves, protects, and enhances endangered and rare plants in California by specifically prohibiting the importation, take,

possession, or sale of any native plant designated by the California Fish and Game Commission as rare or endangered, except under specific circumstances identified in the Act. Various activities are exempt from the CNPPA, although take as a result of these activities may require other authorization from CDFG under the California Fish and Game Code.

### **Regulated Waters**

Impacts to stream channels (bed and bank) are specifically addressed by the CDFG Code §§1600 *et seq.* and may fall under the jurisdiction of the Clean Water Act §404 and §401 permit process and the Porter-Cologne Water Quality Control Act. Permit provisions of the Porter-Cologne Water Quality Control Act are enforced by the Regional Water Quality Control Board (RWQCB).

*Clean Water Act, Section 401:* Any applicant for a Federal permit to impact wetlands under Section 404 of the Clean Water Act, including Nationwide permits (NWP) where pre-construction notification is required, must also provide to the U.S. Army Corps of Engineers (USACE) a certification from the State of California. The “401 Certification” is provided by the State Water Resources Control Board through the local RWQCB.

The RWQCB recommends the application be made at the same time that any applications are provided to other agencies, such as the USACE or the USFWS. Application is not final until completion of environmental review under CEQA. The application to the RWQCB is similar to the pre-construction notification that is required by the USACE (see discussion of Section 404, below). It must include a description of the type of wetland habitat that is being impacted, a description of how the impact is proposed to be minimized and proposed mitigation measures with goals, schedules, and performance standards. Mitigation must include a replacement ratio of 2:1, or twice as many acres of wetlands provided as are removed. The RWQCB looks for mitigation that is on site and in-kind, with functions and values as good as or better than the wetland that is being removed.

*Clean Water Act, Section 404:* As part of its mandate under the Clean Water Act, the EPA regulates the discharge of dredged or fill material into “Waters of the US” under Section 404 of the Act. “Waters of the U.S.” include territorial seas, tidal waters, and non-tidal waters in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high water marks. The EPA also regulates excavation and changes in drainage. The discharge of dredged or fill material into waters of the US is prohibited under the Clean Water Act except when it is in compliance with Section 404 of the Act. Enforcement authority for Section 404 was given to the US Army Corps of Engineers, which it accomplishes under its regulatory branch.

### **Fish and Game Code Section 1602**

Specifically, Section 1602 requires an entity to notify CDFG of any proposed activity that may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing pavement where it may pass into any stream, river, or lake. CDFG uses the USFWS definition of wetlands when regulating these activities.

### **CDFG and CEQA**

As a trustee agency, CDFG comments on the biological impacts of development projects reviewed under CEQA. CEQA gives CDFG jurisdiction to comment on the protection of habitats deemed necessary for any species to survive in self-sustaining numbers, but does not allow CDFG to govern land use. It stipulates that the state lead agency shall consult with, and obtain written findings from, CDFG in preparing an EIR on a project, as to the impact of the project on the continued existence of any endangered or threatened species (Public Resources Code § 21104.2).

### 3.4.3 Environmental Setting

#### Vegetation Communities

Project activities would take place on STNF lands within the Trinity River, South Fork Trinity River, and Cottonwood Creek watersheds (Table 1). Montane hardwood, montane hardwood-conifer, Klamath mixed conifer, Douglas fir, and ponderosa/Jeffrey pine forests (McDonald 1988; McBride 1988; Fitzhugh 1988; Anderson 1988; Raphael 1988) dominate the watersheds. Habitat in the immediate project area consists of disturbed roadsides, roadbeds, seasonally wet meadow, and perennial riparian forest. Minor to moderate amounts of disturbance are present in areas of proposed road decommissioning. The time since last disturbance varies. Some areas have been undisturbed long enough for native vegetation to return and stabilize, while most have been disturbed recently enough for little or no vegetation to be present.

Montane hardwood habitats in the project area typically consist of Douglas fir (*Pseudotsuga menziesii*), tanoak (*Lithocarpus densiflorus*), Pacific madrone (*Arbutus menziesii*), California laurel (*Umbellularia californica*), California black oak (*Quercus kelloggii*), and bristlecone fir (*Abies bracteata*). Understory vegetation is mostly scattered woody shrubs, such as manzanita (*Arctostaphylos* spp.), mountain mahogany (*Cercocarpus betuloides*), poison oak (*Toxicodendron diversilobum*) and a few forbs (McDonald 1988).

To be considered montane hardwood-conifer, at least one-third of the trees must be conifer and at least one-third must be broad-leaved (Anderson 1988). Montane hardwood-conifer habitat within the project area generally consists of California black oak, bigleaf maple (*Acer macrophyllum*), Pacific madrone, and tanoak are common with ponderosa pine (*Pinus ponderosa*), white fir (*Abies concolor*), incense-cedar (*Calocedrus decurrens*), Douglas fir, and sugar pine (*Pinus lambertiana*) forming the overstory (Anderson 1988).

Klamath mixed-conifer's overstory layer is characterized by a mixture of conifers. Dominant conifers in the western portion of this habitat are white fir and Douglas fir. In the east, dominant conifers are white fir, Douglas fir, ponderosa pine, incense-cedar, and sugar pine (Benson 1988, updated by CWHR staff, 2005). Dense forests have a very rich shrub layer which can include Sadler oak (*Quercus sadleriana*), dwarf rose (*Rosa gymnocarpa*), or western thimbleberry (*Rubus parviflorus*). In open-to-moderately dense forests, shrub-size plants in the subcanopy include small individuals of overstory species, especially Shasta red fir (*Abies magnifica* var. *shastensis*) and white fir, as well as bitter cherry (*Prunus emarginata*), pinemat manzanita (*Arctostaphylos nevadensis*), squaw carpet (*Ceanothus prostratus*), huckleberry oak (*Quercus vacciniifolia*), Oregon-grape (*Berberis aquifolium*), greenleaf manzanita (*Arctostaphylos patula*), dwarf rose, and snowberry (*Symphoricarpos albus*; Benson 1988, updated by CWHR staff, 2005).

Douglas fir overstory composition varies with soil parent material, moisture, topography, and disturbance history (Raphael 1988). Dry steep slopes on metamorphic and granitic parent materials are dominated by canyon live oak (*Quercus chrysolepis*). Less rocky, drier soils support Douglas fir, tanoak, and Pacific madrone in association with sugar pine, ponderosa pine, California black oak, and canyon live oak. Deep mesic soils support an overstory of Douglas fir with a tanoak-dominated understory; wettest sites include Pacific yew (*Taxus brevifolia*; Raphael 1988).

Ponderosa pine/Jeffrey pine habitats consist of ponderosa pine or Jeffrey pine (*Pinus jeffreyi*) as the dominant species found in the upper tree layer. It usually forms pure stands but may have as its associates Coulter pine (*Pinus coulteri*), sugar pine, lodgepole pine (*P. contorta*), white fir, red fir, incense-cedar, black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), California black oak, Pacific madrone, canyon live oak, and tanoak. Shrub species composition varies between geographical regions. In the Klamath Mountains manzanita, Fremont's silktassel

(*Garrya fremontii*) and coffeeberry (*Rhamnus californica*) dominate the shrub layer (Fitzhugh 1988 and McBride 1988).

### Wildlife

Wildlife habitat values depend on the availability of water, food, and cover. While some wildlife species are restricted to specific vegetation communities, others range across communities and biotic zones. Many species are active in a higher zone in the summer and hibernate or migrate away from these zones in the winter. To give a sense of the variety, common species found in these biotic zones include mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), coyote (*Canis latrans*), mountain lion (*Puma concolor*), western gray squirrel (*Sciurus griseus*), golden-mantled ground squirrel (*Spermophilus lateralis*), chipmunks (*Neotamias* spp.), big brown bat (*Eptesicus fuscus*), fringed myotis (*Myotis thysanodes*), Steller's jay (*Cyanocitta stelleri*), mountain chickadee (*Poecile gambeli*), common yellowthroat (*Geothlypis trichas*), red-tailed hawk (*Buteo jamaicensis*), red-breasted nuthatch (*Sitta canadensis*), downy woodpecker (*Picoides pubescens*), brown creeper (*Certhia americana*), western fence lizard (*Sceloporus occidentalis*), rubber boa (*Charina bottae*), ensatina (*Ensatina eschscholtzii*), Pacific chorus frog (*Pseudacris regilla*), and rainbow trout (*Oncorhynchus mykiss*). Rare species are described below under "Special-status Species."

### Wildlife Movement Corridors

Habitat corridors facilitate wildlife migration and movement within landscapes and are essential to the viability and persistence of many wildlife populations. Wildlife movement includes migration (i.e., usually one-way per season), inter-population movement (i.e., long-term genetic flow), and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations. These linkages among habitats can extend for miles and occur on a large scale throughout California. Wildlife corridors are important to the long-term health of wildlife populations and the ecology of the Klamath Mountains.

### Special-Status Species

Special-status species are those plants and animals that are legally protected or otherwise recognized as vulnerable to habitat loss or population decline by federal, state, or local resource conservation agencies and organizations. As noted above, the EA and its supporting documentation analyzed federal special-status species, so in this CEQA analysis, special-status species include:

- Species that are state listed threatened or endangered
- Species considered as candidates or proposed for state listing as threatened or endangered
- CDFG Species of Special Concern
- Fully protected species per California Fish and Game Code
- Plants considered by the California Native Plant Society (CNPS) and CDFG to be rare, threatened, or endangered [California rare plant ranked, (CRPR); e.g. CRPR 1B]

The special-status species with potential for occurrence in the project area are listed in Table 6 and Table 7. These tables show state special-status species; in some cases, these species are also federal special-status species. The tables were prepared consistent with the CEQA Guidelines using information from the STNF (2010a-d, 2011a and b), California Natural Diversity Database (CNDDDB 2011), and the CNPS Rare Plant Inventory (2010). The special-status plant species listed in Table 6 occur in a variety of habitats present in the Klamath

Mountains, including areas with serpentinitic soil, broadleaf upland forest, and coniferous forest (CNDDDB 2011) and have some potential of being impacted by project activities. Table 6 contains information on regulatory status, habitat, and flowering period derived from the CNDDDB (2011) and CNPS Rare Plant Inventory (2010). Table 7 provides a list of state special-status animals potentially occurring within the project area. These species are known inhabitants of portions of the STNF.

**Table 6. Special-status Plant Species Potentially Occurring within the Project Area**

Common Name (Scientific Name)	Listing Status <sup>1</sup>	Habitat	Blooming Period	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Koehler's stipitate rock-cress ( <i>Arabis koehleri</i> var. <i>stipitata</i> )	FSS, CRPR 1B.3	Found within chaparral and lower montane coniferous forests on rocky, serpentinitic soil substrate.	March-July	Moderate; CNDDDB maps one location within the STNF approximately 200 feet from a project road.	No.
Shasta County arnica (=veiny arnica) ( <i>Arnica venosa</i> )	CRPR 4.2	Found often in disturbed areas and roadcuts within woodlands and lower montane coniferous forests.	May-July	Low; the geographic range where this species occurs in the project area has already been surveyed for a recent separate project and no occurrences were found.	Yes, this species was evaluated by USFS (USFS 2010e).
Veiny arnica ( <i>Arnica venosa</i> )	CRPR 4.2	Often found in disturbed areas and roadcuts within mixed conifer and conifer/oak forests.	May-July	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Flagella-like atractylocarpus ( <i>Campylopodium stenocarpa</i> )	CRPR 2.2	Moss found in woodlands on seep walls of exposed metasedimentary rock along roadsides.	N/A	Moderate; suitable habitat exists within project area.	No.
Porcupine sedge ( <i>Carex hystericina</i> )	CRPR 2.1	Found along stream edges, marshes, and swamps.	May-June	Low; the only CNDDDB record the the project area is dated 1914 and is considered possibly extirpated.	No.
Shasta chaenactis (=Shasta pincushion) ( <i>Chaenactis suffrutescens</i> )	FSS, CRPR 1B.3	Found on sandy and serpentinitic soils within lower and upper montane coniferous forests.	May-September	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).

Common Name (Scientific Name)	Listing Status <sup>1</sup>	Habitat	Blooming Period	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Brownie lady's-slipper ( <i>Cypripedium fasciculatum</i> )	FSS, CRPR 4.2	Found within mixed conifer or oak forests on a variety of soil types, often but not always associated with streams.	March-August	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Mountain lady's-slipper ( <i>Cypripedium montanum</i> )	FSS, CRPR 4.2	Found within mixed conifer or oak forests on a variety of soil types, often but not always associated with streams	March-August	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Oregon fireweed (=Oregon willow herb) ( <i>Epilobium oreganum</i> )	FSS, CRPR 1B.2	Found in and near bogs and fens within meadows, lower and upper montane coniferous forest; sometimes on serpentinitic soils.	June-September	Low; no appropriate habitat within project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Brandegee's eriastrum ( <i>Eriastrum brandegeae</i> )	CRPR 1B.2	Found on barren volcanic soils in open areas within chaparral and woodlands.	April-August	Moderate; some suitable habitat in project area.	No.
Serpentine goldenbush ( <i>Ericameria ophitidis</i> )	CRPR 4.3	Generally found on serpentinitic soils in chaparral and lower montane coniferous forests.	June-August	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Dubakella Mountain buckwheat ( <i>Eriogonum libertini</i> )	CRPR 4.2	Found on serpentinitic soils in chaparral and lower montane coniferous forests.	June-August	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Scott Mountains fawn lily ( <i>Erythronium citrinum</i> var. <i>roderickii</i> )	FSS, CRPR 1B.3	Found on serpentinitic soils within lower montane coniferous forests.	March-June	Low; the geographic range where this species occurs in the project area has already been surveyed for a recent separate project and no occurrences were found.	Yes, this species was evaluated by USFS (USFS 2010e).
Coast fawn lily ( <i>Erythronium revolutum</i> )	CRPR 2.2	Found within bogs and fens, broadleafed upland forests, and north coast coniferous	March-August	Moderate; suitable habitat exists within project area	No.

Common Name (Scientific Name)	Listing Status <sup>1</sup>	Habitat	Blooming Period	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
		forests.			
Niles' harmonia (=Niles' madia) ( <i>Harmonia doris-nilesiae</i> )	FSS, CRPR 1B.1	Found on serpentinitic barrens within lower montane coniferous forests, chaparral, and woodlands.	May-July	Moderate; suitable habitat exists within project area	Yes, this species was evaluated by USFS (USFS 2010e).
Stebbins' harmonia (=Stebbins' madia) ( <i>Harmonia stebbinsii</i> )	FSS, CRPR 1B.2	Found on serpentinitic soils within chaparral and lower montane coniferous forests.	May-June	Moderate; suitable habitat exists within project area.	Yes, this species was evaluated by USFS (USFS 2010e).
California globe mallow ( <i>Iliamna latibracteata</i> )	FSS, CRPR 1B.2	Found often in burned areas within montane chaparral, lower montane coniferous forest, and riparian scrub.	June-August	Low; no CNDDDB records indicate this species occurs within 5 miles of project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Dudley's rush ( <i>Juncus dudleyi</i> )	CRPR 2.3	Found in wet areas in lower montane coniferous forests.	July-August	Moderate; suitable habitat exists within project area.	No.
Mt. Tedoc leptosiphon ( <i>Leptosiphon nuttallii</i> ssp. <i>howellii</i> )	FSS, CRPR 1B.3	Found on serpentinitic soils in lower montane coniferous forest. Localized around the base of Tedoc Mountain, Tehama Co.	May-August	Low; project area outside of geographic range.	Yes, this species was evaluated by USFS (USFS 2010e).
Heckner's lewisia ( <i>Lewisia cotyledon</i> var. <i>heckneri</i> )	CRPR 1B.2	Found within lower montane coniferous forests on open, north-facing, rocky slopes.	May-July	Moderate; suitable habitat exists within project area.	No.
South Fork Mountain lupine ( <i>Lupinus elmeri</i> )	CRPR 1B.2	Found within lower montane coniferous forests. Typically can be found along edges of disturbance.	June-July	Moderate; suitable habitat exists within project area.	No.
Elongate copper moss ( <i>Mielichhoferia elongata</i> )	FSS, CRPR 2.2	Grows on very acidic, metamorphic rock and exposed soil or rock containing copper minerals.	N/A	Moderate; suitable habitat exists within project area.	Yes, this species was evaluated by USFS (USFS 2010e).

Common Name (Scientific Name)	Listing Status <sup>1</sup>	Habitat	Blooming Period	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Peanut sandwort ( <i>Minuartia rosei</i> )	FSS, CRPR 4.2	Found on serpentinitic soils in lower montane coniferous forests.	May-July	Moderate; suitable habitat exists within project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Cascade (=fringed) grass-of-parnassus ( <i>Parnassia cirrata</i> var. <i>intermedia</i> )	FSS, CRPR 2.2	Found on rocky, serpentinitic soil within bogs, fens, meadows, and seeps.	August-September	Low; No appropriate habitat within project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Thread-leaved beardtongue ( <i>Penstemon filiformis</i> )	FSS, CRPR 1B.3	Found within dry stony sites, grassy openings, and meadows in woodlands, lower montane coniferous forest, and meadows.	May-September	Low; the geographic range where this species occurs in the project area has already been surveyed for a recent separate project and no occurrences were found.	Yes, this species was evaluated by USFS (USFS 2010e).
White-flowered rein orchid ( <i>Piperia candida</i> )	CRPR 1B.2	Found on forest duff, mossy banks, rocky outcrops, and bogs within north coast coniferous forests, lower montane coniferous forests, and broad-leaved upland forests; often on serpentinitic soils.	May-September	Moderate; suitable habitat exists within project area.	No.
White beaked-rush ( <i>Rhynchospora alba</i> )	CRPR 2.2	Found within freshwater marshes and sphagnum bogs.	July-August	Low; No appropriate habitat within project area.	No.
Tracy's sanicle ( <i>Sanicula tracyi</i> )	FSS, CRPR 4.2	Found within woodlands and lower and upper montane coniferous forests on dry gravelly slopes or flats, usually in or at the margin of oak woodland with scattered trees.	April-July	Moderate; suitable habitat exists within project area.	No.
Pale yellow stonecrop ( <i>Sedum laxum</i> ssp. <i>flavidum</i> )	CRPR 4.2	Broadleaved upland forest, chaparral, woodland, lower montane coniferous forest on serpentinitic	May-July	Moderate; suitable habitat exists within project area and numerous occurrences within	No.

Common Name (Scientific Name)	Listing Status <sup>1</sup>	Habitat	Blooming Period	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
		or basalt outcrops.		the project area have been recorded in the CNDDDB.	
Klamath Mountain catchfly ( <i>Silene salmonacea</i> )	CRPR 1B.2	Found on serpentinitic soil within openings in lower montane coniferous forests.	May-July	Moderate; suitable habitat exists within project area.	No.
English Peak greenbrier ( <i>Smilax jamesii</i> )	CRPR 1B.3	Found along shaded streams and lake margins in north coast coniferous forests, broadleaved upland forest, lower montane coniferous forest, and marshes and swamps.	May-August	Moderate; suitable habitat exists within project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Buttercup-leaf suksdorfia ( <i>Suksdorfia ranunculifolia</i> )	CRPR 2	Found in rocky crevices within upper coniferous forests and meadows and seeps.	June-August	Moderate; suitable habitat exists within project area.	No.
Umpqua green-gentian ( <i>Swertia umpquaensis</i> ) (= <i>Frasera umpquaensis</i> )	CRPR 2.2	Found montane coniferous forest, meadows and seeps, chaparral, and north coast coniferous forests in forest margins or openings.	June-July	Low; this species is typically found at higher elevations than the project area.	Yes, this species was evaluated by USFS (USFS 2010e).
Oval-leaved viburnum ( <i>Viburnum ellipticum</i> )	CRPR 2.3	Found within chaparral, woodland, and lower montane coniferous forests.	May-June	Moderate; suitable habitat exists within project area.	No.
<sup>1</sup> Listing Status Key: FSS – USFS Sensitive Species California Rare Plant Rank: CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere. CRPR 2: Plants rare, threatened, or endangered in Calif. but common elsewhere. CRPR 4: Limited distribution (Watch List). CRPR Threat Code extensions and their meanings: .1 – Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) .2 – Fairly endangered in California (20-80% occurrences threatened) .3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)					

Source: CNDDDB 2011; CNPS 2011; USFS 2010e

**Table 7. Special-status Animals Potentially Occurring within the Project Area**

Species	Listing Status <sup>1</sup>	Habitat	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	FSS, SE, SFP	Nests in large, old-growth, or dominant live trees with open branches (particularly ponderosa pine) and roosts communally in winter. Generally associated with lake margins and rivers for both nesting and wintering.	Moderate; suitable nesting and foraging habitat throughout project area.	Yes, this species was evaluated by USFS (USFS 2011b).
Peregrine falcon ( <i>Falco peregrinus anatum</i> )	FSS, SFP	Includes most of California during migrations and winter. The breeding range includes the Cascades and Sierra Nevada. Nests on ledges in rock outcrops and needs open or edge areas for foraging.	Moderate: suitable nesting and foraging habitat throughout project area.	Yes; this species was evaluated by USFS (USFS 2011b).
California wolverine ( <i>Gulo gulo</i> )	FC, FSS, ST, SFP	Found in a wide variety of high elevation habitats; uses caves, logs, and burrows for cover and dens.	Low; typically found at higher elevations than the project area and appear to select areas that are free from significant human disturbance. STNF records show no sightings in the project area	Yes, this species was evaluated by USFS (USFS 2011b).
California red-legged frog ( <i>Rana draytonii</i> )	FT, CSSC	Found within permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods. Along the coast and coastal mountain ranges of California from Marin to San Diego Counties and in the Sierra Nevada from Tehama to Fresno Counties	Low; project area is outside species' range.	Yes, this species was evaluated by USFS (USFS 2011b).
Chinook salmon – Central Valley spring-run ESU ( <i>Oncorhynchus tshawytscha</i> )	FT, ST	Deep pools and cool thermal refuge in the summer. Found in the Sacramento River and its tributaries.	Low; do not migrate to a point closer than three stream miles from project activities (USFS 2010a).	Yes, this species was evaluated by USFS (USFS 2010a).

Species	Listing Status <sup>1</sup>	Habitat	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Chinook salmon – spring-run Klamath-Trinity pop. ( <i>Oncorhynchus tshawytscha</i> )	FSS, CSSC	Deep pools and cool thermal refuge in the summer. Found in the Trinity and Klamath Rivers, upstream of the mouth of the Trinity River. Juveniles require cool temperatures which strongly effects growth and survival.	Low; do not migrate to a point closer than 0.75 miles from project activities (USFS 2010a).	Yes, this species was evaluated by USFS (USFS 2010a).
Coho salmon – southern Oregon/ northern California ESU ( <i>Oncorhynchus kisutch</i> )	FT, ST, CSSC	Occurs between Cape Blanco, Oregon and Punta Gorda, California.	Low; no project activities are scheduled to occur within 500 meters of designated critical habitat (USFS 2010a).	Yes, this species was evaluated by USFS (USFS 2010a).
Summer-run steelhead trout ( <i>Oncorhynchus mykiss irideus</i> )	FSS, CSSC	Found in northern California coastal streams south to Middle Fork Eel River. This species requires cool, swift, shallow water and clean, loose gravel for spawning, and large pools in which to spend the summer.	Low; no project activities are scheduled to occur within 0.75 miles of designated critical habitat (USFS 2010a).	Yes, this species was evaluated by USFS (USFS 2010a).
Foothill yellow-legged frog ( <i>Rana boylei</i> )	FSS, CSSC	Found within partly-shaded, shallow streams and riffles with rocky substrates in a variety of habitats.	High; known to occur within ¼ mile of project activities.	Yes, this species was evaluated by USFS (USFS 2011b).
Cascades frog ( <i>Rana cascadae</i> )	FSS, CSSC	Found within montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows within open coniferous forests. Standing water required for reproduction.	Low; CNDDDB records are found farther north and west than project area.	Yes, this species was evaluated by USFS (USFS 2011b).
Humboldt marten ( <i>Martes americana humboldtensis</i> )	FSS, CSSC	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County. Associated with late-successional coniferous forests and prefers forests with low, overhead cover.	Low; the coastal redwood zone lies to the east of Trinity County. The nearest CNDDDB reports date from 1971,	No. The FSS American marten was evaluated by USFS (USFS 2011b).
Northern goshawk ( <i>Accipiter gentilis</i> )	FSS, CSSC	Found within coniferous forests, and usually nests on north slopes near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Moderate; known inhabitant of the STNF and suitable nesting and foraging habitat throughout project area.	Yes, this species was evaluated by USFS (USFS 2011b).

Species	Listing Status <sup>1</sup>	Habitat	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Northern spotted owl ( <i>Strix occidentalis caurina</i> )	FT, CSSC	Inhabits old growth forests in the northern part of its range (Canada to southern Oregon) and landscapes with a mix of old and younger forest types in the southern part of its range (Klamath region and California).	Moderate; known inhabitant of the STNF and suitable nesting and foraging habitat throughout project area.	Yes, this species was evaluated by USFS (USFS 2010d).
Oregon snowshoe hare ( <i>Lepus americanus klamthensis</i> )	CSSC	Typically found above the yellow pine zone in alder and willow thickets along riparian habitats.	Moderate; suitable habitat throughout project area.	No.
Pacific fisher ( <i>Martes pennant pacifica</i> )	FC, FSS, CSSC	Found within coniferous forests and deciduous riparian areas containing a high percentage of canopy closure. Uses cavities, snags, logs, and rocky areas for cover and denning.	Moderate; suitable habitat throughout project area.	Yes, this species was evaluated by USFS (USFS 2011b).
Pacific (Coastal) tailed frog ( <i>Ascaphus truei</i> )	CSSC	Restricted to perennial montane streams within montane hardwood-conifer, redwood, Douglas fir, and ponderosa pine habitats.	Moderate; suitable habitat throughout project area.	No.
Pallid bat ( <i>Antrozous pallidus</i> )	FSS, CSSC	Most commonly found in open, dry habitats with rocky areas for roosting within deserts, grasslands, shrublands, woodlands, and forests.	Low; uncommon in the STNF. Only CNDDDB record in the project area and dates from 1939. No pallid bats were found during a five year (1996-2000) bat mist net monitoring at the nearby Pilot Creek watershed area (Weller and Lee 2007).	Yes, this species was evaluated by USFS (USFS 2011b).
Southern torrent salamander ( <i>Rhyacotriton variegatus</i> )	FSS, CSSC	Occurs in cold, well-shaded, permanent streams and seeps within coastal redwood, Douglas fir, mixed conifer, montane riparian and montane hardwood-conifer habitats; particularly within old growth forests.	Low; USFS (2011b) and CNDDDB records indicate that there are no sightings of this salamander in the project area.	Yes, this species was evaluated by USFS (USFS 2011b).
Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )	FSS, CSSC	Found throughout California in a wide variety of habitats. Roosts in the open, hanging from wall and ceilings.	Low; there are no CNDDDB or USFS (2011b) records of this species within the project area.	Yes, this species was evaluated by USFS (USFS 2011b).

Species	Listing Status <sup>1</sup>	Habitat	Potential for Occurrence in Project Area	Addressed by USFS in either EA or its supporting documents?
Trinity bristle snail ( <i>Monadenia infumata setosa</i> )	ST	Known only from a few streams in the Trinity River drainage. Juveniles are found under bark of standing dead broadleaved trees; adults are found on the ground beneath the hardwood understory. Both adults and juveniles feed on leaf mold and decaying plant material.	Moderate; CNDDDB records indicate that sightings of the Trinity bristle snail are greater than 0.75 miles from the project area.	No.
Western pond turtle ( <i>Emys marmorata</i> )	FSS, CSSC	An aquatic turtle found in ponds, marshes, rivers, streams, and irrigation ditches. Requires basking sites and suitable (sandy banks or grassy open fields) upland habitat.	High; USFS and CNDDDB records indicate that there are several sightings of pond turtle within a ¼ mile of the project area.	Yes, this species was evaluated by USFS (USFS 2011b).
Western red bat ( <i>Lasiurus blossevillii</i> )	FSS, CSSC	Typically associated with riparian areas for foraging and roosting. They tend to roost in trees and shrubs, especially near water.	Moderate:the USFS reports that western red bats have been reported in recent years (2011b) and one western red bat was found during a five year (1996-2000) bat mist net monitoring at the nearby Pilot Creek watershed area (Weller and Lee 2007).	Yes, this species was evaluated by USFS (USFS 2011b).
Willow flycatcher ( <i>Empidonax traillii</i> )	FSS, SE	Dense willow thickets are required for nesting and roosting. Summer resident in wet meadow and montane riparian habitats.	Moderate; known inhabitant of the STNF and suitable nesting and foraging habitat throughout project area.	Yes, this species was evaluated by USFS (USFS 2011b).
<sup>1</sup> Listing Status Key: FE – Federal Endangered FT – Federal Threatened FC – Federal Candidate FSS – USFS Sensitive Species		SE – State Endangered ST – State Threatened SC – State Candidate SFP – State Fully Protected CSSC – Calif. Species of Special Concern		

Source: CNDDDB 2011; USFS 2010d, and USFS 2011b

The following species accounts include those state-listed species described in Table 6 and Table 7 that have not been evaluated by the USFS and have a high or moderate probability of occurring within the project area. For species that have been evaluated by the USFS, please see the following documents for the Westside Watershed Restoration: Wildlife Sensitive Species Biological Evaluation (2011b), Wildlife Biological Assessment (2010d), Fisheries Biological Assessment/Biological Evaluation (2010a), and Draft Fisheries Specialist Report (2010b).

## Plants

**Koehler's stipitate rock-cress** (*Arabis koehleri* var. *stipitata*, CRPR 1B.3) occurs in chaparral and lower montane coniferous forest in rocky serpentinitic soils, from elevations of 155 to 1,660 meters. It commonly grows in association with Idaho fescue (*Festuca idahoensis*), California fescue (*Festuca californica*), California poppy (*Eschscholzia californica*), June grass (*Koeleria macrantha*), and dwarf mahonia (*Berberis aquifolium* var. *repens*). A perennial herb, it blooms March through July. The only known CNDDDB occurrence within the project area is on Rattlesnake Ridge in the southwest portion of the project area. This occurrence is near road 29N58E.

**Flagella-like atractylocarpus** (*Campylopodia stenocarpa*, CRPR 2.2) is a moss found on seep walls of exposed metasedimentary rock along roadsides. Little is known about the habitat requirements of this moss, but the one known occurrence within five miles of the project area occupies a vertical roadcut on Hwy 299 between Helena and Big Bar. Suitable roadcuts have a high component of bedrock material overlain with silty soil that seeps water until late in the season. Bedrock in these sites contains heavy minerals that provide the necessary substrate for bryophyte growth. Seeps would be avoided during treatments to prevent future erosion, so no impacts to potentially unidentified populations are expected.

**Brandegge's eriastrum** (*Eriastrum brandegeae*, CNPS 1B.2) occurs in chaparral and cismontane woodland on volcanic, sandy soils, from 305 to 1,030 meters elevation. It commonly grows in association with blue elderberry (*Sambucus Mexicana* and *Sambucus nigra* ssp. *caeluria*), California poppy (*Eschscholzia californica*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*) and silver lupine (*Lupinus albifrons*). An annual herb, it blooms from April to August. The nearest CNDDDB occurrence to project roads is near Knob Peak in the southeast corner of the project site.

**Coast fawn lily** (*Erythronium revolutum*, CNPS 2.2) occurs in bogs and fens, broadleafed upland forest, and North Coast coniferous forest in mesic habitats and along streambanks from 0 to 1,350 meters elevation. It commonly grows in association with California bay laurel (*Umbellularia californica*), false Solomon seal (*Smilacina stellata*), dog violet (*Viola adunca*), five finger fern (*Adiantum aleuticum*) and star flower (*Trientalis latifolia*). A perennial bulbiferous herb, it blooms from March through August. The nearest CNDDDB occurrence of this species in the project area is on Dubakella Mountain road.

**Dudley's rush** (*Juncus dudleyi*, CNPS 2.3) occurs in lower montane coniferous forest in mesic habitats from 455 to 2,000 meters elevation. It commonly grows in association with creek dogwood (*Cornus sericea* ssp. *sericea*), sandbar willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*), hair grass (*Deschampsia elongata*) and poverty rush (*Juncus tenuis*). A perennial herb, it blooms July through August. The only CNDDDB occurrence of this species within the project area is within the town of Weaverville.

**Heckner's lewisia** (*Lewisia cotyledon* var. *heckneri*, CNPS 1B.2) occurs in lower montane coniferous forest in rocky soils from 225 to 2,100 meters elevation. It commonly grows in association with sword fern (*Polystichum munitum*), western raspberry (*Rubus leucodermis*), western Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), bush chinquapin (*Chrysolepis sempervirens*), and slender false lupine (*Thermopsis macrophylla* var. *venosa*). A perennial herb, it blooms May through July. This species is known to occur in the northern portion of the project area.

**South Fork Mountain lupine** (*Lupinus elmeri*, CNPS 1B.2) occurs in lower montane coniferous forest from 1,218 to 2,000 meters elevation. It commonly grows in association with California poppy (*Eschscholzia californica*), dwarf mahonia (*Berberis aquifolium* var. *repens*), hollyleaf redberry (*Rhamnus ilicifolia*), purple Chinese houses (*Collinsia heterophylla*) and Ithuriel's spear

(*Triteleia laxa*). This species is known to exist along old logging roads, but in general exists only on the slopes and ridges of South Fork Mountain.

**White-flowered rein orchid** (*Piperia candida*, CNPS 1B.2) occurs in broadleaved upland forest, lower montane coniferous forest and North Coast coniferous forest, sometimes on serpentinitic soils, from 30 to 1,310 meters elevation. It commonly grows in association with sword fern (*Polystichum munitum*), western Douglas fir (*Pseudotsuga menziesii* var. *menziesii*), western raspberry (*Rubus leucodermis*), blue elderberry (*Sambucus Mexicana*) and California poppy (*Eschscholzia californica*). There is one CNDDDB recorded occurrence near Forest Glen along the South Fork of the Trinity River.

**Tracy's sanicle** (*Sanicula tracyi*, CNPS 4.2) occurs in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forests in open areas, from 100 to 1,585 meters elevation. It commonly grows in association with blue elderberry (*Sambucus Mexicana*), canyon live oak (*Quercus chrysolepis*), California goldenrod (*Solidago californica*), California brome (*Bromus carinatus* var. *carinatus*) and pine bluegrass (*Poa secunda* ssp. *secunda*). A perennial herb, it blooms April through July. The one CNDDDB recorded occurrence in the project area southwest of South Dubakella Mountain. This area is near numerous road segments scheduled for road decommissioning.

**Pale yellow stonecrop** (*Sedum laxum* ssp. *flavidum*, CNPS 4.3) occurs in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest, in serpentinitic or volcanic soil, from 455 to 2,000 meters elevation. It commonly grows in association with Yerba Santa (*Eriodictyon californicum*), rusty slender sedge (*Carex subfusca*), scytheleaf onion (*Allium falcifolium*), California poppy (*Eschscholzia californica*), and California fescue (*Festuca californica*). A perennial herb, it blooms May through July. There are numerous CNDDDB recorded occurrences of this species in the southern extent of the project area.

**Klamath Mountain catchfly** (*Silene salmonacea*, CNPS 1B.2) occurs in lower montane coniferous forests in the Klamath Mountains in open areas on serpentinitic soils, from 775 to 1,345 meters elevation. A newly described species, it is known from only six sites, two of which have fewer than five plants and the largest of which has 250 plants (NatureServe 2010). A perennial herb, it blooms from May through July. There are four CNDDDB recorded occurrences in the northeast extent of the project area near Trinity Lake.

**Buttercup-leaf suksdorfia** (*Suksdorfia ranunculifolia*, CNPS 2) occurs in meadows and seeps and upper montane coniferous forest, in mesic, rocky, or granitic soils, from 1,500 to 2,500 meters elevation. It commonly grows in association with scarlet monkey flower (*Mimulus cardinalis*), yellow willow (*Salix lucida* ssp. *lasiandra*), paniced bulrush (*Scirpus microcarpus*), stream orchid (*Epipactis gigantea*) and mountain alder (*Alnus incana* ssp. *tenuifolia*). A perennial herb, it blooms June through August. There is one CNDDDB recorded occurrence of this species in the northwest corner of the project area near the town of Helena.

**Oval-leaved viburnum** (*Viburnum ellipticum*, CNPS 2.3) occurs in chaparral, cismontane woodland, and lower montane coniferous forest from 214 to 1,400 meters elevation. It commonly grows in association with California poppy (*Eschscholzia californica*), woodland strawberry (*Fragaria vesca*), yellow stonecrop (*Sedum spathulifolium*), canyon live oak (*Quercus chrysolepis*) and California goldenrod (*Solidago californica*). A perennial deciduous shrub, it blooms May through June. The one CNDDDB record of this species within five miles of the project area is found in the southeast corner of the project extent approximately four miles from the nearest project road.

## Wildlife

**American peregrine falcon** (*Falco peregrinus anatum*) is a California fully protected species. Like bald eagles, the peregrine falcon was added to the federal endangered species list due to the effects of dichloro-diphenyl-trichloroethane (DDT). After decades of work to aid in its recovery, including extensive re-introduction efforts, the peregrine falcon has recovered to the extent that it was removed from the federal endangered species list in 1999 and removed from the California endangered species list in 2009.

One of the most widespread species, the peregrine falcon occurs on every continent except Antarctica. The peregrine falcon nests on high cliffs and on bare ledges. A nearby water source is required during breeding season. Peregrines forage most commonly in open habitats such as marshes, open grasslands, coastal strands, and bodies of water where prey cannot easily escape attack. The peregrine falcon primarily eats songbirds that were captured in flight and occasionally can be found eating rodents. Breeding times vary depending on latitude. In southern California, the first egg is laid mid- to late-February, while in northern California the first egg is laid usually in May but replacement clutches occur as late as September (White et al. 2002).

While this species was not given a specific species account in the USFS NEPA analysis of this project, the USFS would enforce Limited Operating Periods (LOPs) around active nests. Peregrine falcon nesting habitat is limited to cliffs. All suitable peregrine falcon nesting habitat is known on each Forest district. Any roads proposed for treatment that fall within ¼ mile of suitable peregrine falcon nesting habitat would be surveyed prior to implementation or LOPs would be implemented (2011a).

**Oregon snowshoe hare** (*Lepus americanus klamathensis*) is a California species of special concern and is found in the Cascade Mountains from Mt. Hood, Oregon, southward to Mt. Shasta and the Trinity Mountains of California. In California, it is known from the vicinity of Mt. Shasta, the Trinity Mountains, and rarely from the Warner Mountains (Williams 1986). The Warner Mountain population is probably isolated from all others by expanses of unsuitable habitat (Williams 1986). Uncommon within California, snowshoe hares are primarily found in riparian areas with thickets of deciduous trees such as alders and willows and in dense thickets of young conifers, particularly firs, above the yellow pine zone (Williams 1986). The snowshoe hare breeds mid-February to June or July with a gestation period is 35-37 days with 2-3 litters a year (Hoeftler and Duke 1988). The project area contains numerous stream crossings containing suitable habitat for the Oregon snowshoe hare.

**Pacific (coastal) tailed frog** (*Ascaphus truei*) is a California species of special concern. This frog species occurs in permanent streams of low temperatures in conifer-dominated habitats including redwood, Douglas fir, Klamath mixed-conifer, and ponderosa pine habitats (Morey 1988). They do not inhabit ponds or lakes. A rocky streambed is necessary for cover for adults, eggs, and larvae (Morey 1988). Permanent water is critical because the aquatic larvae require two to three years to transform (Morey 1988). After heavy rains, adults may be found away from the stream (Morey 1988). This species is mostly nocturnal, but often can be seen on creek banks in daylight (Jennings and Hayes 1994). Adults are usually active from April to October, depending on the locality (Jennings and Hayes 1994). Adults are relatively long-lived, with speculation that they can live up to 15 - 20 years.

The project area contains numerous stream crossings containing suitable habitat for the Pacific tailed frog.

**Trinity bristle snail** (*Monodenia infumata setosa*) is a State of California threatened species currently known only from east of the Mad River along South Fork Mountain, and west of the North Fork of the Trinity River (CDFG 2011). This species occurs in isolated locations along the mainstem and South Fork of the Trinity River, Hayfork Creek, and nearby small streams in cool,

wet, and shady riparian zones frequently associated with both riparian and upland late seral stage hardwood and conifer forest stands and stand elements (CDFG 2011). The Trinity bristle snail appears to be confined to habitats where there is plenty of shade, fairly low temperatures, and fairly high humidity. They also appear to be most active between dusk and dawn during the months of May and October when ambient air is cool and humid (CDFG 2011). The Trinity bristle snail has a lifespan of from 15 to 20 years, is slow growing, and may not reach an age of maturity for approximately 10 years. It is dormant during summer and winter and can remain dormant for more than 10 years (CDFG 2011). Both adults and juveniles live primarily on the ground, feeding upon and living within the uppermost layer of leaf litter. They also climb to feed upon lichens growing on rocks and alder trees, ferns, petioles of violets, and tender stalks of other green plants (CDFG 2011).

The known range of the Trinity bristle snail encompasses several of the roads slated for decommissioning.

### 3.4.4 Discussion

*Would the proposed project:*

- a. **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Less Than Significant with Mitigation.**

#### Special-status Plants

Due to the highly compacted nature of the soils, no documented populations of federal special-status plant species or their habitat have been found within any roadbed surface, including those that have been revegetated (USFS 2011a). A greater amount of habitat and number of documented populations can be found on road cut and fill slopes directly adjacent to road beds, and the riparian habitat associated with culverts.

Of the 34 plant species listed in Table 6, 15 have a low potential for occurrence within the project area. Either no occurrences were found during USFS surveys for the species, no appropriate habitat is found within the project area, or the project area is outside of the geographic range of the species. The 15 species include Shasta county arnica, veiny arnica, porcupine sedge, Shasta chaenactis, Brownie lady's-slipper, mountain lady's slipper, Oregon fireweed, serpentine goldenbush, Dubakella Mountain buckwheat, Scott Mountains fawn lily, California globe mallow, Mt. Tedoc leptosiphon, Cascade grass-of-parnassus, thread-leaved beardtongue, and white-beaked rush. With the exception of porcupine sedge and white-beaked rush, these species were analyzed by the USFS in the EA and its supporting documents (2010e and 2011a). Due to the low potential of occurrence and unlikelihood of being impacted by the project, these 15 species are dismissed from further consideration.

Six USFS sensitive species have moderate potential for occurrence due to suitable habitat within the project area (Table 6). These species include elongate copper moss, peanut sandwort, English peak greenbrier, Niles' harmonia, Stebbins' harmonia, and Umpqua green-gentian. Resource protection measures have been specified for these species in the Final Westside Watershed Restoration EA and FONSI. The following measures would be implemented by botanists as needed depending on site conditions for federally listed and USFS sensitive species:

- Survey all perennial streams for threatened, endangered, and sensitive species or noxious weed species or assume occupancy.

- Survey for sensitive serpentinitic-outcrop- loving sensitive plants or assume occupancy in these areas.
- Trees greater than 10 inches diameter at breast height (dbh) will not be removed when pulling road fill onto road surface.
- Where known or assumed populations of sensitive plant species exist on proposed road segments, soil piling, and/or any other activities that could bury plants or disrupt root structures significantly will be avoided.
- Where known populations of spotted or diffuse knapweed exist adjacent to project roads, roads will be individually evaluated to determine the least amount of soil disturbance that would still allow purpose and need to be met.
- The number of service vehicles used in monitoring or implementing treatments will be kept to a minimum to minimize spread of noxious weeds.
- When vehicles park on the side of the road, sites will be chosen where little or no vegetation is present to minimize spread of noxious weed.
- Brief equipment operators of the need to minimize disturbance to existing vegetation within the road clearing limits, at stream crossings, and approved disposal sites to the extent necessary to restore hydrologic function. (Minimize turns.)
- Mechanical equipment is generally restricted to slopes less than 35%.
- Clean equipment to remove noxious weeds and petroleum residues: 1) prior to all work and 2) again after working in any areas containing noxious weeds.
- Project design features will be used to reduce or eliminate impacts to special-status plant species that are known to exist or have potential to exist in the proposed project area. These features include deferring treatments on road segments that have known populations of Niles' or Stebbins' harmonia until after July 1 to allow seed set and dispersal.

These resource protection measures specified in the Westside Watershed Restoration EA and FONSI are adequate protection for the six species listed above; no additional mitigation is required.

The remaining 13 plant species listed in Table 6 are state listed plant species with a moderate potential of occurring within the project area and were not analyzed for impacts by the USFS. These species include Koehler's stipitate rock-cress, flagella-like atractylocarpus, Brandegees' eriastrum, coast fawn lily, Dudley's rush, Heckner's lewisia, South Fork Mountain lupine, white-flowered rein orchid, Tracy's sanicle, pale yellow stonecrop, Klamath Mountain catchfly, buttercup-leaf suksdorfia, and oval-leaved viburnum.

The proposed project would not impact species that occupy steep, rocky, vertical roadcuts. This includes flagella-like atractylocarpus and buttercup-leaf suksdorfia. Treatments would be excluded from these types of habitats both by USFS direction and to avoid compromising the integrity of slope stability. Therefore, no impacts to these two species are expected.

Serpentinitic soils are present within the decommissioning disturbance zone, and there is suitable habitat for several endemic special-status plant species including Koehler's stipitate rock-cress, white-flowered rein orchid, pale yellow stonecrop, and Klamath Mountain catchfly. In most cases, individuals of special-status species would not occur within roadbeds that traverse serpentinitic soil habitat, but they would be found in areas adjacent to existing roads. There is slight potential for individuals of some species to be present in road segments proposed for ripping or subsoiling, and movement of soil for outcropping. Potential impacts include damage to above or belowground plant parts, loss of reproductive potential for a short (seed production) or extended (loss of reproductive roots) time, and possible death of individuals. The

preconstruction surveys and installation of protective fencing identified in Mitigation Measure BIO-1 would reduce the potential impact on these serpentinitic soil habitat species to a less than significant level.

Within perennial riparian zones where culvert removal is scheduled as part of decommissioning, impacts to special-status plant species potentially occupying these sites could occur within the area needed to implement the work. Riparian special-status species potentially present include coast fawn lily and Dudley's rush. Potential impacts include damage to aboveground plant parts, uprooting or death of underground root structures, and loss of reproductive potential for short or extended periods of time. The preconstruction surveys and installation of protective fencing identified in Mitigation Measure BIO-1 would reduce the potential impact on these riparian habitat species to a less than significant level.

Impacts may also be felt by Brandegee's eriastrum, Heckner's lewisia, South Fork Mountain lupine, Tracy's sanicle, and oval-leaved viburnum due to the possibility of these species occurring within the project area and near roads proposed for decommissioning. The preconstruction surveys and installation of protective fencing identified in Mitigation Measure BIO-1 would reduce the potential impact on these species to a less than significant level.

**IMPACT:** Project activities may result in direct impacts to CRPR listed special-status plant species that may occur within and adjacent to the project area. Such impacts could include damage to aboveground plant parts, uprooting or death of underground root structures, and loss of reproductive potential for short or extended periods of time, which would be considered potentially significant. This may include adverse impacts to Koehler's stipitate rock-cress, Brandegee's eriastrum, coast fawn lily, Dudley's rush, Heckner's lewisia, South Fork Mountain lupine, white-flowered rein orchid, Tracy's sanicle, pale yellow stonecrop, Klamath Mountain catchfly, and oval-leaved viburnum.

**Mitigation Measure BIO-1:** Prior to the commencement of project activities, the location of special-status plant species shall be determined through appropriately timed surveys according to CNPS protocol; this shall apply to all areas of the proposed project subject to ground disturbance. Determination of potential habitat for special-status plant species, and surveys conducted to determine the presence of rare plant species shall be performed by a qualified botanist. These surveys shall be timed to cover the blooming periods of special-status plant species with the potential to occur in the area.

Any rare plants within the proposed project area shall be flagged, mapped on improvement plans, and/or fenced to protect the occupied area during project activities. Where known populations of sensitive plant species exist on proposed road segments, soil piling, and/or any other activities that could bury plants or disrupt root structures significantly shall be avoided.

**Implementation:** by TCRCD

**Effectiveness:** Locating plants within the project area would enable plants to be protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of special-status plants to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities. An environmental monitor shall be present for all activities that encroach into sensitive areas (e.g., road decommissioning through riparian zones). Monitors shall be hired and trained prior to the onset of project activities and shall be responsible for conducting pre-activity surveys, staking sensitive resources, on site monitoring, documentation of violations and compliance, coordination with contract compliance inspectors, and post-activity documentation. Environmental monitors shall be familiar with the

sensitive biological resources in the general project area and qualified to recognize potential project effects to these resources, and shall ensure that state and/or federal wetland/riparian and special status species protection guidelines are followed.

### **Special-status Wildlife**

Of the 23 species listed in Table 7, 11 have a low potential of occurring within the project area due to rarity in the project area or the project area being outside of the known geographic range of the species. Due to the low potential of occurrence, these 11 species are unlikely to be impacted by the project and are dismissed from further consideration: California wolverine, California red-legged frog, Chinook salmon – Central Valley spring-run ESU, Chinook salmon – spring-run Klamath-Trinity population, Coho salmon – southern Oregon/northern California ESU, summer-run steelhead trout, Cascades frog, Humboldt marten, pallid bat, southern torrent salamander, and Townsend's big-eared bat.

In addition to several of the above species, the USFS analyzed nine federally listed or USFS sensitive species in the EA and its supporting documents (2010a-d, 2011a, and 2011b) with moderate to high potential for occurrence in the project area. The USFS determined that the project would have no effect on bald eagle, peregrine falcon, northern goshawk, Pacific fisher, and northern spotted owl because no habitat would be modified for these species, all of the suitable habitat would remain post-project and resource protection measures (listed below) would be implemented (USFS 10d and USFS 2011b). For willow flycatcher, western red bat, foothill yellow-legged frog, and western pond turtle proposed actions may impact individual species but would not cause a trend towards federal listing or a loss of viability due to project activities temporarily affecting the potential habitat of stream crossings (culverts) and riparian areas (USFS 2011b).

The project as developed by STNF incorporates consultation with wildlife biologists who would implement the following resource protection measures as needed depending on site conditions for federally listed and USFS sensitive species, as specified in the Final Westside Watershed Restoration EA (2011a) and FONSI.

- Survey for sensitive species within suitable habitat prior to disturbance.
- Survey for northern spotted owls for roads within ¼ mile of suitable nesting habitat or historic activity centers, or implement an LOP in these areas from February 1 through July 9 to prevent noise disturbance of nests.
- Implement an LOP from February 1 to July 9 for northern spotted owl in suitable habitat unless protocol surveys determine no owls to be in the area.
- Implement an LOP from February 1 to August 15 within ½ mile from northern goshawk and peregrine falcon nests. Surveys will be performed in moderately to highly suitable northern goshawk nesting habitat before implementation of the project where project roads fall within ½ mile of the habitat, or LOPs will be implemented. Any roads proposed for treatment that fall within ¼ mile of suitable peregrine falcon nesting habitat will be surveyed prior to implementation or LOPs will be implemented.
- Implement an LOP from January 1 to August 15 within ½ mile from bald eagle nests.
- Isolate construction sites from stream flow before removing a culvert and performing work inside the stream channel. The work site may be completely dewatered or the stream may be rerouted within the channel.
- When water is drafted from Pacific salmonid bearing stream reaches, follow NOAA Fisheries Service Water Drafting Specifications.
- Do not remove trees greater than 10 inches dbh when pulling road fill onto road surface.

- Brief equipment operators of the need to minimize disturbance to existing vegetation within the road clearing limits, at stream crossings, and approved disposal sites to the extent necessary to restore hydrologic function. (Minimize turns.)

With the incorporation of these resource protection measures the project would have no impact on northern spotted owl, bald eagle, peregrine falcon, northern goshawk, and Pacific fisher.

While the USFS concluded that project activities would not result in population impacts to foothill yellow-legged frog, western pond turtle, and willow flycatcher, individuals of the species could be impacted by the work in riparian areas. Preconstruction surveys, avoidance, and removal of individuals from the work area as prescribed in Mitigation Measure BIO-2 would ensure project activities have a less than significant impact to these species.

Three species identified in Table 7 are exclusively state listed special-status species and therefore were not addressed by the USFS in the EA. Pacific tailed frog, Oregon snowshoe hare, and Trinity bristle snail could be affected by project activities within riparian areas. Pacific tailed frog is known from perennial streams; Oregon snowshoe hare is typically found in alder and willow thickets along riparian areas; and, the Trinity bristle snail is known from only a few streams in the Trinity River drainage. Mitigation Measures BIO-2 through BIO-5 would reduce these impacts to a less than significant level.

Roosting bats and nesting birds occurring near the project area could be disturbed by noise from project activities or if trees and shrubs currently in use by either bats or birds are removed during road decommissioning or culvert removal. These disturbances may result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during an affected species' breeding season. Roosting bats and nesting birds are fully protected by state law and disturbance could result in a violation of the California Fish and Game Code. Protection of nesting birds as specified in Mitigation Measure BIO-6 and BIO-7 would ensure this project has a less than significant impact to all roosting bats and nesting birds including the willow flycatcher.

**IMPACT:** The project could result in the loss and disturbance of foothill-yellow legged frog, western pond turtle, and Pacific tailed frog.

**Mitigation Measure BIO-2:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of foothill-yellow legged frog, western pond turtle, and Pacific tailed frog within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Sensitive resource areas shall be clearly mapped and marked on project maps before road decommissioning commences. These areas shall be avoided to the greatest extent possible. Immediately prior to project activities scheduled to occur within sensitive resource areas, the qualified biologist shall survey the work area and if foothill-yellow legged frog, western pond turtle, or Pacific tailed frog individuals are found, a CDFG approved biologist shall move individuals downstream to a safe distance from project activities.

**Implementation:** by TCRCD

**Effectiveness:** Pre-activity surveys would ensure sensitive wildlife resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of sensitive wildlife resources and methods of avoidance to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities.

**IMPACT:** The project could result in the loss and disturbance of Oregon snowshoe hare.

**Mitigation Measure BIO-3:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of any Oregon snowshoe hare breeding site within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Breeding areas shall be clearly mapped and marked on project maps before road decommissioning commences. These areas shall be avoided until the breeding hare and offspring leave the project area.

**Implementation:** by TCRCD

**Effectiveness:** Pre-activity surveys would ensure sensitive wildlife resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of sensitive wildlife resources and methods of avoidance to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities.

**IMPACT:** During the course of normal activity, project operations may harass and potentially harm wildlife that enters the project site. Individuals of special-status wildlife species such as foothill-yellow legged frog, Pacific tailed frog, or Oregon snowshoe hare may become trapped within holes or trenches preventing wildlife from traveling through the project area without harm.

**Mitigation Measure BIO-4:** TCRCD shall impose the conditions defined below on all work-related personnel.

- Litter and other debris that may attract animals shall be removed from the project area daily and kept in enclosed containers when on the job site.
- No pets shall be allowed in the road decommissioning area, including staging areas.
- TCRCD's qualified biologist shall hold a tailgate environmental training program with work-related personnel. Training shall be conducted prior to commencement of project activities, to inform work-related personnel of the wildlife and aquatic resources in the project area. The training program shall include information about the locations and extent of these sensitive species and areas, methods of resource avoidance, permit conditions, and possible fines for violations of permit conditions and state or federal environmental laws. A fact sheet conveying this information shall be prepared and provided to work-related personnel and any other project personnel who may enter the activity area.

To prevent inadvertent entrapment of animals during road decommissioning and other construction, all excavated, steep-walled holes or trenches more than two feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All equipment stored in the action area overnight shall be inspected before they are subsequently moved. If at any time a listed species is discovered, the environmental monitor shall be immediately informed. The environmental monitor shall determine if relocating the species is necessary and shall work with the USFWS and CDFG prior to handling or relocating unless otherwise authorized.

**IMPACT:** The project could result in the loss and disturbance of Trinity bristle snail.

**Mitigation Measure BIO-5:** TCRCD shall carry out pre-activity biological resource surveys to identify the location of Trinity bristle snail individuals and habitat within the project area. Pre-activity surveys shall be consistent with all survey protocols and requirements stipulated by resource agencies as a condition of project approval. Sensitive resource areas shall be clearly mapped and marked on project maps before road decommissioning commences. These areas

shall be avoided to the greatest extent possible. If a Trinity bristle snail individual is found during project activities, a CDFG approved biologist shall capture, handle for identification (or photograph), and promptly release back into the environment in the nearest suitable habitat and under the same conditions under which they were first found so as to cause minimal trauma (desiccation) to the individual and its associated microhabitat.

**Implementation:** by TCRCD

**Effectiveness:** Pre-activity surveys would ensure sensitive wildlife resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of sensitive wildlife resources and methods of avoidance to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities.

**IMPACT:** Disturbances from project activities impact nesting birds (not necessarily special-status species) and could result in nest, roost, or territory abandonment and subsequent reproductive failure if these disturbances were to occur during an affected species' breeding season resulting in a violation of the Fish and Game Code. Protection of nesting birds would ensure this project has a less than significant impact to all nesting birds including the willow flycatcher.

**Mitigation Measure BIO-6:** Project activities are scheduled for implementation during the summer months. This schedule overlaps the nesting season, February 1 through August 31. If no project activities are proposed during the nesting season, no surveys are required. If project activities are unavoidable during the nesting season, a qualified biologist shall conduct a survey within 250 feet of project disturbance areas for all nesting birds within five days prior to the proposed start of work. If active nests are not present, project activities can take place as scheduled. Additionally, if more than 5 days elapses between the initial nest search and demolition activities, it is possible for new birds to move into the project area and begin building a nest. If there is such a delay, another nest survey should be conducted. If any active nests are detected, TCRCD shall delay the removal of the tree, or shrub while the nest is occupied with eggs or young who have not yet fledged. A no-disturbance buffer zone shall be designated and maintained around the nest until a qualified biologist has determined that the young have fledged from the nest. The size of the no-disturbance zone shall be determined in consultation with CDFG. A qualified biologist shall monitor any occupied nest to determine when the nest is no longer used. Woody vegetation (e.g., small trees and shrubs) shall not be removed during the nesting season for raptors and migratory birds to the extent feasible. If woody vegetation must be removed during the nesting season, the amount and extent to be removed shall be minimized to the extent feasible.

**Implementation:** by TCRCD

**Effectiveness:** Pre-activity surveys would ensure sensitive wildlife resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of sensitive wildlife resources and methods of avoidance to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities.

**IMPACT:** Extra noise and vibration can lead to the disturbance of roosting bats which may have a negative impact on the animals. Human disturbance can also lead to a change in humidity, temperatures, or the approach to a roost that could force the animals to change their mode of egress and/or ingress to a roost. Although temporary, such disturbance can lead to the

abandonment of a maternity roost, which in most cases would be considered a significant impact.

**Mitigation Measure BIO-7:** TCRCD shall retain a qualified biologist (“bat biologist”) to conduct a pre-activity survey for all roosting bats in trees to be removed. If no roosting bats are found, no further mitigation is required. If a bat roost is found, TCRCD shall implement the following measures to avoid impacts to roosting bats.

If non-breeding bats are found in a tree to be removed, the individuals shall be safely evicted, under the direction of a qualified bat biologist, by opening the roosting area to allow airflow through the cavity. Project activities should then follow at least one night after initial disturbance for airflow. This action should allow bats to leave during darkness, thus increasing their chance of finding new roosts with a minimum of potential predation during daylight.

If active maternity roosts are found in trees that will be removed as part of project implementation, removal of that tree shall commence before maternity colonies form (generally before March 1) or after young are flying (generally by July 31).

**Implementation:** by TCRCD

**Effectiveness:** Pre-activity surveys would ensure sensitive wildlife resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall submit mapped locations of sensitive wildlife resources and methods of avoidance to OHMVR Division for review prior to commencement of project activities. TCRCD shall retain qualified biologists as environmental monitors to monitor project activities

**b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Less Than Significant Impact.** The proposed project would have a minor impact on riparian habitat during culvert removal and road decommissioning activities. No mature overstory trees are scheduled for removal in riparian habitats; only shrubs, other understory vegetation, and seedling or sapling trees may be removed during road decommissioning. This vegetation is expected to grow back quickly after treatment activities are completed. Aquatic and riparian protections would be provided by BMPs, project design criteria, and Shasta-Trinity’s Land and Resource Management Plan (LRMP) standards. Applicable LRMP standards are identified in the Westside Watershed Restoration Project Final Wildlife Biological Evaluation (USFS 2011b). Dispersal of aquatic and riparian species would be improved by culvert removal. With the removal of roads, restoration of riparian and upland habitat function would occur in the treatment areas. Fragmentation of habitat would be substantially reduced.

Additionally, the following resource conservation measures have been incorporated into the project design by TCRCD:

- Stream crossings are removed and fill is generally placed along cutbanks to create outslipping roads.
- Cutbank overhangs are removed.
- Culvert removal consists of excavation to pre-road construction level of channel, removal of culvert, and pulling fill back until natural channel width is reestablished.
- Remove organic debris from fill.
- Dispose of unsuitable slide and waste material in relatively flat stable areas away from stream courses.

- Remove berms or provide breaks in earth mass to allow dispersal of surface flow.
- Disperse surface flow onto stable slopes with vegetation or rip-rap protection.
- Ensure that inboard ditch relief is provided by outsloping, maintaining or adding dips to disperse surface runoff.
- Provide drainage to prevent ponding water.
- Isolate project activity sites from stream flow before removing a culvert and performing work inside the stream channel. The work site may be completely dewatered or the stream may be rerouted within the channel.

If CDFG determines the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement (Agreement) would be required (Fish and Game Code §1602). A draft agreement must be provided within 60 days (Fish and Game Code §1603). The Agreement would include reasonable conditions necessary to protect those resources and must comply with CEQA. The applicant may proceed with the activity in accordance with the final Agreement.

CDFG regulations would not apply if the project was being funded and conducted solely by the USFS. However, because the work is being funded by the OHMVR Division and carried out by the TCRCD work conducted within a stream course the project requires compliance with Fish and Game Code § 1602.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**Less Than Significant Impact with Mitigation.** The proposed project may impact Waters of the U.S. during culvert removal and road decommissioning activities. Mitigation Measure BIO-9 requires TCRCD to consult with appropriate agencies (RWQCB and the USACE) should direct impacts to wetlands and Waters of the U.S. be unavoidable. With the implementation of Mitigation Measure BIO-9, the project impacts are considered less than significant.

The USFS maintains an agreement and waiver process with the RWQCB. If the project is on federal land, the Management Agency Agreement and Waiver Process (see the 2010 Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region, Order No. R1-2010-0029) covers the RWQCB's 401 certification process. A waiver must be filed and the implementation plan must include any specific applicable BMPs which align with the NEPA document that authorizes the work.

The 404 permit is usually a concurrent process with the 401 process. If the project is on national forest land, the project likely falls under an exempted category of 33 CFR 323.4. The most applicable exempted category is "Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining equipment, where such roads are constructed and maintained in accordance with best management practices (BMPs) to assure that flow and circulation patterns and chemical and biological characteristics of waters of the United States are not impaired, that the reach of the waters of the United States is not reduced, and that any adverse effect on the aquatic environment will be otherwise minimized."

If the projects are on private land, 401/404 permits are required and the exemptions or waivers are not valid. For work on private land, TCRCD will consult with both the RWQCB and the USACE. This project would likely require a Nationwide Permit. The purpose of the Nationwide Permit Program (NWP) is to streamline the evaluation and approval process throughout the nation for certain types of activities that have only minimal impacts to the aquatic environment.

NWPs authorize specific types of activity, including construction activities. Many of the NWPs require notification to the USACE.

**IMPACT:** Project operations may discharge fill into wetlands or Waters of the U.S. If this occurs without compliance of Sections 401 or 404 of the Clean Water Act, significant impacts may occur.

**Mitigation Measure BIO-8:** TCRCD shall consult with the RWQCB to receive certification and the USACE for a Nationwide Permit or any other permit required by the USACE. Certain Nationwide Permits require prior notification to the USACE.

**Implementation:** by TCRCD

**Effectiveness:** The above measures would ensure sensitive aquatic resources within the project area are protected and avoided during project activities.

**Feasibility:** Feasible

**Monitoring:** TCRCD shall retain qualified biologists as environmental monitors to monitor project activities.

**d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less Than Significant Impact.** Project activities could impact wildlife in adjacent areas by temporarily altering movement patterns, or causing animals to temporarily avoid those areas. Mobile species including birds and larger mammals are expected to disperse into adjacent areas during project activities. Vegetation removal activities and road decommissioning could interfere with movement patterns for wildlife that use riparian, wetlands, and other corridors for dispersal (e.g., black-tailed deer, raccoon, muskrat, bobcat, coyote, and skunks). Although local wildlife movement may be impacted near the project, the project area is confined to short road segments within large tracts of public, undeveloped, USFS land providing established native vegetation and habitat for a range of common and special status native wildlife species. Therefore, disruption to wildlife movement is considered less than significant.

Direct effects to fish migration corridors or nursery sites are not expected to occur. Water drafting is the only aspect of the project that may occur in suitable fish habitat. Following the NMFS water drafting guidelines is expected to fully protect listed fish species. Project design standards and BMPs would ensure that no fish would be affected directly. Flowing stream water would be carefully diverted and entrained within the existing channel to avoid possible sedimentation during heavy equipment operation. With the BMPs listed in response b, project impacts on fish migration corridors or wildlife nursery sites are considered less than significant.

**e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** The project does not conflict with any local policies or ordinances protecting biological resources. There would be no impact, directly or indirectly, on local policies or ordinances by the implementation of this project.

**f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** The project area is not covered under a Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. Therefore, there would be no impact, either directly or indirectly, on a Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan.

### 3.5 CULTURAL RESOURCES

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

Please see page 66 in the attached EA (Appendix B) for a discussion of project effects on cultural resources. The following is excerpted from the EA.

No cultural resources would be affected by either action alternative; therefore, no direct or indirect effects would occur. Archaeological sites have been identified and excluded from treatment. Proposed activities within the assessment area would result in no effect to heritage properties. Under the Programmatic Agreement, the State Historic Preservation Officer would not be consulted for this project. A report has been completed documenting findings, which has been reviewed in Redding and concurred with by the Forest Archaeologist. Copies of the report have been filed at the Hayfork Ranger District Office and the Supervisor’s Office in Redding, CA.

*Would the proposed project:*

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

**No Impact.** (Responses a-d). Please see page 66 in the attached EA (Appendix B) for a discussion of project effects on cultural resources.

**3.6 GEOLOGY AND SOILS**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please see page 23 in the attached EA (Appendix B) for a discussion of project effects on geology and soils. The following is excerpted from the EA.

Erosion and sedimentation associated with road-side ditch failure and stream diversion would be reduced as ditches are eliminated and as the grade of the road is reshaped, thus providing more natural hillslope drainage. Some erosion and sedimentation would occur for approximately one season until soils stabilize and revegetate. During this first season, erosion is likely to reach stream channels in locations where the routes are connected to stream channels. Once a more natural drainage and vegetation cover is established, an increase in slope stability would occur, and thus a decrease in road and stream-road crossing failures and associated episodic erosion and sedimentation.

There would be some short-term increases in erosion with project implementation, but over a two to five year period these rates would drop to background levels due to mulch from falling leaves, branches, and needles, and growth of grass and forbs.

Decommissioning would also decrease the possibility of road related mass wasting (landslide). The removal of road fill at stream crossings offers a high degree of success in regards to limiting the downstream effects of mass wasting. This is due to mass wasting occurring in steep terrain that becomes channelized in incised streams and valley inner gorges, thus funneling into stream crossings, and potentially causing road fill to fail. Decommissioning would eliminate costs associated with mass wasting events. Even though motorized trails are smaller than roads, they can still be a source for mass wasting at a smaller scale than road related mass wasting.

*Would the proposed project:*

- a. **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
  - i. **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?**
  - ii. **Strong seismic ground shaking?**
  - iii. **Seismic-related ground failure, including liquefaction?**
  - iv. **Landslides?**

**No Impact.** (Responses i-iv). Please see page 23 in the attached EA for a discussion of project effects on geology and soils.

- b. **Result in substantial soil erosion or the loss of topsoil?**
- c. **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Less Than Significant Impact.** (Responses b-c). Please see page 23 in the attached EA for a discussion of project effects on geology and soils.

- d. **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**
- e. **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** (Responses d-e). Please see page 23 in the attached EA for a discussion of project effects on geology and soils.

### 3.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions or greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.7.1 Environmental and Regulatory Setting

Gases that trap heat in the atmosphere and affect regulation of the Earth’s temperature are known as greenhouse gases (GHG). Common GHG include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF<sub>6</sub>).

GHG emissions from human activities contribute to overall GHG concentrations in the atmosphere and climate scientists have become increasingly concerned about the effects of these emissions on global climate change. Human (anthropogenic) production of GHGs has increased steadily since pre-industrial times and atmospheric CO<sub>2</sub> concentrations have increased from a pre-industrial value of 280 part per million (ppm) to 390 ppm in 2010 (NOAA 2010). The United Nations’ International Panel on Climate Change (IPCC) fourth assessment report (AR4) concluded that recent regional climate changes, particularly temperature increases, are affecting many natural systems including water, ecosystems, food, coasts, and health (IPCC 2007). The AR4 concluded that most of the observed increase in global average temperature since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations (IPCC 2007a).

GHGs can remain in the atmosphere long after they are emitted. The potential for a GHG to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is CO<sub>2</sub>, which has a GWP of one. By comparison, CH<sub>4</sub> has a GWP of 21, which means that one molecule of CH<sub>4</sub> has 21 times the effect on global warming as one molecule of CO<sub>2</sub>. Multiplying the estimated emissions for non-CO<sub>2</sub> GHGs by their GWP determines their carbon dioxide equivalent (CO<sub>2</sub>e), which enables a project’s combined global warming potential to be expressed in terms of mass CO<sub>2</sub> emissions.

In 2006, the California State Legislature adopted the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32, which required the CARB to: 1) determine 1990 statewide GHG emissions, 2) approve a 2020 statewide GHG limit that is equal to the 1990 emissions level, 3) adopt a mandatory GHG reporting rule for significant GHG emission sources, 4) adopt a Scoping Plan to achieve the 2020 statewide GHG emissions limit, and 5) adopt regulations to achieve the maximum technologically feasible and cost-effective reductions.

In 2007, CARB approved a statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million metric tons of carbon dioxide equivalents (MMTCO<sub>2</sub>e) (CARB, 2007). In 2008, CARB published its Climate Change Scoping Plan, which projects, absent regulation or under a “business as usual” (BAU) scenario, 2020 statewide GHG emissions levels of 596 million MTCO<sub>2</sub>e and identifies the numerous measures (i.e., mandatory rules and

regulations and voluntary measures) that will achieve at least 169 MMTCO<sub>2</sub>e of reductions and reduce statewide GHG emissions to 1990 levels by 2020 (CARB 2008b).

Regionally, the NCUAQMD and Shasta County AQMD are in the process of adopting regulations for permitting stationary sources of GHG emissions. Trinity and Shasta counties are also in the process of preparing climate action plans that will develop a GHG inventory, forecast future GHG emissions scenarios, and identify measures to achieve AB60 GHG reduction goals (AECOM 2011). Neither the NCUAQMD nor the Shasta County AQMD maintains CEQA significance thresholds for GHG emissions.

### 3.7.2 Discussion

*Would the proposed project:*

- a. **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less Than Significant Impact.** Road decommissioning would produce GHG emissions from construction equipment fuel combustion. As estimated using URBEMIS2007 V. 9.2.4 (see Section 3.3), decommissioning approximately 12 miles of roads per construction season would emit 45.4 metric tons of carbon dioxide (MTCO<sub>2</sub>) per season, or a total of 182 MTCO<sub>2</sub> over four seasons (the seasons could occur consecutively for a period of four years, or every other year for a period of eight years); emissions of CH<sub>4</sub> and N<sub>2</sub>O from construction-related fuel combustion would be negligible. As a point of reference, the Bay Area Air Quality Management District considers land use projects that result in more than 1,100 MTCO<sub>2</sub>e of operational GHG emissions per year to have a significant GHG impact. The decommissioning activities would emit a total of 182 MTCO<sub>2</sub>e over a four to eight year period. This magnitude of GHG emissions is considered a less than significant impact.

- b. **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Less Than Significant Impact.** The Westside Watershed Restoration Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Off-road GHG emissions are identified and planned for in the CARB's GHG emissions inventory and Scoping Plan, which contains measures designed to achieve the state's GHG reduction goals outlined in AB32. The project would not contain any stationary sources that are subject to state or federal GHG permitting or reporting regulations.

### 3.8 HAZARDS AND HAZARDOUS MATERIALS

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

#### 3.8.1 Regulatory Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. Chemical and physical properties such as toxicity, ignitability, corrosivity, and reactivity, cause a substance to be considered hazardous. These properties are defined in the California Code of Regulations (CCR), Title 22, Sections 66261.20-66261.24. A “hazardous waste” is any

hazardous material that is discarded, abandoned, or to be recycled. The criteria that render a material hazardous also make a waste hazardous (California Health and Safety Code § 25117). According to this definition, fuels, motor oil, and lubricants in use at a typical construction site and airborne lead built up along roadways could be considered hazardous.

### 3.8.2 Discussion

*Would the proposed project:*

- a. **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
- b. **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**No Impact.** (Responses a-b) The project sites do not contain any hazardous materials nor are any hazardous materials planned to be brought to the project sites, with the exception of fuel required to power the heavy equipment, including diesel fuel and gasoline. These materials would be contained within the vehicle fuel tanks, and no refilling of the fuels would be conducted on site. Therefore, these fuels would not cause an impact either through transport, use, or disposal of hazardous materials or by posing a risk of release of hazardous materials into the environment.

- c. **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or hazardous waste within one-quarter mile of an existing or proposed school?**

**No Impact.** The project sites do not contain any hazardous materials nor are any aspects of project implementation expected to emit hazardous emissions or wastes, other than the burning of fuel needed to power the equipment used to conduct the decommissioning work. There are no schools within one-quarter mile of the project sites.

- d. **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**No Impact.** None of the specific project sites are located on the list of hazardous materials sites pursuant to Government Code Section 65962.5. The sites are not anticipated to contain any hazardous materials and are therefore not considered to pose an impact related to hazardous materials.

- e. **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** None of the specific project sites are located within an area that has an airport land use plan. The nearest airport is the Hayfork Airport more than five miles away.

- f. **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** There are no private airstrips near the specific project sites. The nearest airport is the Hayfork Airport more than five miles away.

- g. **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** Implementation of the road and trail repair work would facilitate the use of the roads by emergency personnel as it would stabilize the roads and make them more durable. Road decommissioning work would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

**h. Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?**

**No Impact.** All of the specific project sites are in remote locations and do not involve the construction of structures that would be susceptible to wildfires. Also refer to page 43 in the attached EA for a discussion of project effects related to wildland fires.

**3.9 HYDROLOGY AND WATER QUALITY**

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

Please see page 23 in the attached EA (Appendix B) for a discussion of project effects on hydrology and water quality (under “Watersheds”). The following is excerpted from the EA.

Alternative 2 (the proposed project) would improve watershed condition by reducing road runoff, reducing stream diversion potential, removing or upgrading stream-road crossings, and ultimately, reducing controllable sediment discharges. Improved watershed conditions would improve long-term water quality and fisheries habitat in the watersheds. Alternative 2 would reduce road density in project watersheds. Decommissioned roads would have reduced road drainage and surface flow, and watershed conditions would be improved by reducing the magnitude, duration, timing, and frequency of hillslope runoff diversion. Watershed improvements would be greatest in watersheds with the highest reductions in road density.

The episodic erosion and sediment that occur during stream crossing failure events would be reduced by reducing the occurrence of stream crossing failures by installing larger culverts that would allow larger debris and flow to pass through the crossing. Without the upgrading of stream-road crossings, the smaller culverts could become plugged, and eventually fail. The most common cause of crossing failure is debris plugged culverts.

*Would the proposed project:*

- a. **Violate any water quality standards or waste discharge requirements?**
- b. **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**
- c. **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**
- d. **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**
- e. **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**
- f. **Otherwise substantially degrade water quality?**
- g. **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**
- h. **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**
- i. **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**
- j. **Result in inundation by seiche, tsunami, or mudflow?**

**No Impact.** (Responses a-j). Please see page 23 in the attached EA for a discussion of project effects on hydrology and water quality (under “Watersheds”).

**3.10 LAND USE AND PLANNING**

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

*Would the proposed project:*

**a. Physically divide an established community?**

**No Impact.** The project has no components that would divide an established community. All road decommissioning work would take place on national forest lands.

**b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.** None of the proposed work would change the nature of any land use within the area. Road decommissioning is needed to improve and maintain water quality. None of the specific projects conflict with land use policy. Impacts to water and biological resources require authorization from regulating agencies, including CDFG. Such authorization would guarantee that these projects are in compliance with regulations that protect the environment.

**c. Conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No Impact.** None of the project sites are located in an area covered by a habitat conservation plan or natural community conservation plan.

**3.11 MINERAL RESOURCES**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local -general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Would the proposed project:*

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**No Impact.** (Responses a-b). No important mineral resources would be removed from the project area, nor would availability of any mineral resources be affected by work at the specific project sites.

**3.12 NOISE**

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

*Would the proposed project:*

- a. Expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less Than Significant Impact.** Noise levels would increase during work at specific project sites due the use of heavy equipment. However, noise from heavy equipment would be limited to the hours between 7:00 a.m. and 5:00 p.m., Monday through Friday, and for a period of approximately 45 days a year for a maximum of 8 years. Furthermore, there are no sensitive receptors in the vicinity of the specific project sites that would be affected by heavy equipment noise.

- b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?**

**Less Than Significant Impact.** Localized ground vibrations may occur during implementation of the project at the specific project sites due the use of heavy equipment. However, ground vibrations from heavy equipment would be limited to the hours between 7:00 a.m. and 5:00 p.m., Monday through Friday, and for a period of approximately 45 days a year for a maximum

of 8 years. Furthermore, there are no sensitive receptors in the vicinity of the specific project sites that would be affected by heavy equipment noise.

**c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**No Impact.** The road decommissioning project involves the one-time stabilization and repair of up to 48 miles of roads and trails within the national forest. In any given year not more than 12 miles of roads would be decommissioned. Work at each specific site could take anywhere from one to three days. After that time, the heavy equipment used to conduct the work would be removed and no other noise would be generated at the site.

**d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**No Impact.** None of work conducted at the specific project sites would create a substantial temporary or periodic increase in ambient noise levels (refer to responses to a. and c. above).

**e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The nearest airport to the project site is the Hayfork Airport, located more than five miles from the nearest project site. None of the specific project sites are located within the 60 dBA CNEL zone of the airport and do not involve a change in recreational or other human use of the area, and implementation of the project would not affect or result in exposure to excessive noise levels from an airport.

**f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** None of the specific project sites are within the vicinity of a private airstrip.

**3.13 POPULATION AND HOUSING**

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

*Would the proposed project:*

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**No Impact.** The project would not induce population growth as project activities only involve road and trail repair and erosion control work. These activities do not provide services that support population growth.

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

**No Impact.** The project would not displace any existing houses.

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No Impact.** There are no people living in the immediate vicinity of specific project sites. Therefore, there would be no displacement of people requiring the construction of replacement housing elsewhere.

**3.14 PUBLIC SERVICES**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Would the proposed project:*

**a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

**i. Fire protection?**

**No Impact.** The project would not increase the need for fire protection services or create an adverse impact on fire protection services.

**ii. Police protection?**

**No Impact.** The project would not increase the need for police protection services or create an adverse impact on police protection services.

**iii. Schools?**

**No Impact.** The project would not affect the number of students served by local schools, nor bring in new residents requiring the construction of additional schools.

**iv. Parks?**

**No Impact.** The project would not result in an increased number of residents or visitors in the area using community parks. The project is not expected to increased visitor use within the national forest.

**v. Other public facilities?**

**No Impact.** No other public facilities would be affected by the project.

**3.15 RECREATION**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Would the proposed project:*

- a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No Impact.** The project would not increase visitor use at the national forest such that new recreational facilities would be needed, nor would the road decommissioning cause motorized recreationists to intensify uses on other facilities. No neighborhood or regional parks are located in the vicinity of specific work sites.

- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

**No Impact.** The project would not include nor would it facilitate any new recreational facilities or activities. The road decommissioning would not cause an expansion of OHV use within the national forest.

**3.16 TRANSPORTATION/TRAFFIC**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Please see page 41 in the attached EA (Appendix B) for a discussion of project effects on transportation. The following is excerpted from the EA.

Under the entire Westside Watershed Restoration Project, road related resource and safety issues would be eliminated on approximately 3% of roads in the project area. Public access to currently open roads would be eliminated on 1% of roads in the assessment area. Roaded recreation opportunities would remain about the same. Routine and deferred road maintenance costs are reduced on the 47.7 miles of decommissioned roads.

The Westside Watershed Restoration Project slightly decreases the miles of road in the forest road system by decommissioning 9 miles of open level 2 roads, 21 miles of closed level 1 roads, and 18 miles of unauthorized routes (currently closed). The roads proposed for decommissioning are mostly spur roads that were built in the 1970s and 1980s primarily for the

removal of timber. Of the 81 segments of level 1 and 2 roads, only 8 are over 1 mile in length and none are over 2 miles. These roads are not used frequently, so they are a low priority for maintenance. Lack of maintenance can cause roads to degrade over time to a condition that does not meet USFS standards. Elimination of these roads would help resolve some of the maintenance backlog, eliminate safety concerns, and free up maintenance funds for higher priority roads requiring maintenance. The upgrading of five existing stream crossings on system roads would protect the investment already made in the affected roads.

*Would the proposed project:*

- a. **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?**
- b. **Conflict with an applicable congestion management program, including, but not limited to a level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**
- c. **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**
- d. **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**
- e. **Result in inadequate emergency access?**
- f. **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

**No Impact.** (Responses a-f). Please see page 41 in the attached EA for a discussion of project effects on transportation.

**3.17 UTILITIES AND SERVICE SYSTEMS**

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

*Would the proposed project:*

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**No Impact.** (Responses a-b) No project activities involve or affect wastewater treatment. The project would not require construction of new or expanded water or wastewater treatment facilities. The project has no wastewater disposal needs. The few workers used would have access to portable toilets.

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**No Impact.** The road decommissioning work would improve water conveyance over existing roads where they intersect streams and creeks so as to prevent excessive siltation of downstream water bodies.

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**No Impact.** No new water supplies or entitlements would be needed to complete the project because there would be no change of existing water use associated with the projects.

- e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**No Impact.** The project does not involve construction of expanded facilities that would increase wastewater quantities.

- f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**No Impact.** The project has no solid waste disposal needs. Workers would have access to existing portable solid waste disposal facilities at the project sites.

- g. Comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact.** The project has no solid waste disposal needs and thus would not violate any federal, state, or local statutes or regulations related to solid waste.

**3.18 MANDATORY FINDINGS OF SIGNIFICANCE**

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means the incremental effects of past projects, the effects of other current projects, and the effects of probably future projects as defined in Section 15130.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*Would the proposed project:*

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

**Less Than Significant Impact with Mitigation.** Work at specific project sites would employ BMPs during implementation to preserve the quality of the environment and to protect sensitive habitats and species. Mitigation measures (BIO-1 through BIO-9) are recommended to protect special status plants and animals from significant harm. These actions, combined with the resource conservation measures, would prevent substantial degradation of the environment, loss of species below self sustaining levels. No important examples of the major periods of California history or prehistory are present at specific project sites.

- b. Does the project have possible environmental effects that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means the incremental effects of past projects, the effects of other current projects, and the effects of probable future projects as defined in Section 15130)?**

**Less Than Significant Impact.** The Westside Watershed Restoration EA includes an analysis of cumulative impacts for each environmental issues addressed in the EA. The following summarizes the analysis in the EA. The entire EA is contained in Appendix B.

#### *Hydrology and Water Quality*

Decommissioning would restore hydrologic functionality, reduce erosion, and increase soil fertility by improving infiltration and returning topsoil. In addition, sedimentation of streams would be reduced, and water quality and fish habitat would be improved in project watersheds. With project design features built into the project, direct effects on soils would be minimal. No other foreseeable projects are expected to occur in these road beds, thus there would be no cumulative effects on soils.

#### *Soils*

The soil analysis boundary is the road prisms. Because the roads would be decommissioned or closed, it is assumed that no further work would be done that would impact soils after implementation. Therefore there are no foreseeable projects that would affect the soils.

#### *Fisheries*

Because no measureable direct effects – short or long term - are expected to occur to fish as a result of implementing this project due to BMPs and resource protection measures, the only cumulative effects that could conceivably affect fish are those that may indirectly adversely affect fish or fish habitat downstream from areas of project implementation. The analysis described in the Westside Watershed Restoration EA and its accompanying project fish analysis documents confirm, however, that no indirect effects to fish and fish habitats are likely. Therefore, no cumulative effects would result that could otherwise harm salmonids, other fishes, or fish habitat as a result of implementing the project.

#### *Transportation*

The overall cumulative effects of the project on the transportation system are minimal. Public accessible road density would be reduced by the effects of this proposed action, Motorized Travel Management directives, the East Fork/Sims Watershed Restoration Project and some of the integrated present/foreseeable vegetation management projects (some road decommissioning is included in these projects). Road management resources would be more effectively focused on a lesser number of road miles, allowing for more proactive preventative maintenance on the remaining roads.

#### *Wildland Fires*

Effects of implementation of the project on access for fire suppression were negligible and discountable; therefore, there are no cumulative effects anticipated.

#### *Biological Resources, Sensitive Animals*

No cumulative effects on the federally Threatened and Endangered species are anticipated because the restoration project would not affect northern spotted owls or northern spotted owl critical habitat. The project would not modify existing nesting, roosting, or foraging habitat for northern spotted owl. Any potential direct or indirect effects would be minimized or eliminated to a negligible level through the use of avoidance and minimization measures such as the LOPs and other resource protection measures. This action, due to its localized and relatively low impact nature taken with the past, present, and foreseeable future actions, is not anticipated to contribute to any significant cumulative effects to any species listed herein.

*Biological Resources, Sensitive Plants*

The USFS has predisturbance “flag and avoid” mitigations in place for sensitive plant species that do not respond positively to disturbance, and LOPs for disturbance dependent sensitive species to allow successful reproduction before onset of disturbance; so USFS actions are not likely to cumulatively affect sensitive plant species.

With regard to the CEQA only issues, the project does not propose any new permanent uses at the work sites so there are no cumulative impacts relating to needs for public services or extension of utilities. Cumulative impacts related to climate change and air quality are not anticipated as the facilities are not expanding or resulting in increased visitation at the Forest, nor does the project propose new housing or new permanent sources of air pollutant emissions. In conclusion, the project would not result in negative cumulative impacts when considered alone or in combination with other projects taking place in the Forest.

**c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less Than Significant Impact.** The project is the restoration and repair of existing unstable roads needed to improve water quality in the forest. Measures have been incorporated into the project that would prevent significant environmental effects. No substantial unavoidable adverse effects, either direct or indirect, are identified in this Initial Study.

## Chapter 4 REFERENCES

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## **Chapter 5 REPORT PREPARATION**

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