# Tahoe National Forest
# Camp Restoration Project
# Negative Declaration

**May 2015**

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

# Tahoe National Forest
# Camp Restoration Project

# Negative Declaration

May 2015

**Prepared for:**

State of California, Department of Parks and Recreation
Off-Highway Motor Vehicle Recreation Division
1725 23rd Street, Suite 200
Sacramento, CA 95816
(916) 324-4442
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**Prepared by:**

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# NEGATIVE DECLARATION

**Project:** Camp Restoration Project

**Project Sponsor:** Tahoe National Forest

**Lead Agency:** California Department of Parks and Recreation (CDPR), Off-Highway Motor Vehicle Recreation (OHMVR) Division

**Availability of Documents**: The Initial Study for this Negative Declaration is available for review at:

Tahoe National Forest
631 Coyote Street
Nevada City, CA 95959
Contact: Joe Chavez, Trails and Recreation Specialist
Phone: (530) 478-6158

CDPR, OHMVR Division
1725 23rd Street, Suite 200
Sacramento, CA 95816
Contact: George MacDougall, Grant Administrator
Phone: (916) 324-3788

## PROJECT DESCRIPTION

The OHMVR Division proposes to award grant funds to the Tahoe National Forest for decommissioning 58 unneeded roads and trails (routes) totaling approximately nine miles. The Camp Restoration Project would take place on national forest lands within the Yuba River Ranger District, primarily within Yuba County, but also including small sections in Sierra and Nevada Counties. The project area is located west and north of the community of Camptonville and east and north of New Bullards Bar Reservoir. The routes decommissioning project involves the following steps: 1) de-compact the hardened soil; 2) restore the hydrologic function of the land; 3) provide effective soil cover (mulch and/or vegetation cover); and 4) install barriers to prevent further incursions on the closed routes. Mulching material can include slash, chipped material, or weed-free rice straw to protect the surface of the trail from erosion. Other erosion control measures, such as waterbars, may be implemented as needed to prevent erosion.

## PROPOSED FINDING

The OHMVR Division has reviewed the attached Initial Study and determined that there is no substantial evidence, in light of the whole record before the agency, that the project could have a significant effect on the environment. Pursuant to California Environmental Quality Act (CEQA) Guidelines sections 15064(f)(3) and 15070(a), a Negative Declaration has been prepared for consideration as the appropriate CEQA document for the project.

## BASIS OF FINDING

Based on the environmental evaluation presented in the attached Initial Study, the project would not cause significant adverse effects related to aesthetics, agriculture/forestry resources, air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. The project does not affect any important examples of the major periods of California prehistory or history. The project does not have impacts that are individually limited, but cumulatively considerable. In addition, substantial adverse effects on humans, either direct or indirect, would not occur.

## RECORD OF PROCEEDINGS AND CUSTODIAN OF DOCUMENTS

The record, upon which all findings and determinations related to the approval of the project are based, includes the following:

1. The Negative Declaration and all documents referenced in or relied upon by the Negative Declaration.
2. All information (including written evidence and testimony) provided by OHMVR Division staff to the decision maker(s) relating to the Negative Declaration, the approvals, and the project.
3. All information (including written evidence and testimony) presented to the OHMVR Division by the environmental consultant who prepared the Negative Declaration or incorporated into reports presented to the OHMVR Division.
4. All information (including written evidence and testimony) presented to the OHMVR Division from other public agencies and members of the public related to the project or the Negative Declaration.
5. All applications, letters, testimony, and presentations relating to the project.
6. All other documents composing the record pursuant to Public Resources Code section 21167.6(e).

The OHMVR Division is the custodian of the documents and other materials that constitute the record of the proceedings upon which the OHMVR Division's decisions are based. The contact for this material is:

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

Pursuant to section 21082.1 of CEQA, the OHMVR Division has independently reviewed and analyzed the Initial Study and Negative Declaration for the proposed project and finds these documents reflect the independent judgment of the OHMVR Division.

# Tahoe National Forest
# Camp Restoration Project
# Initial Study

**May 2015**

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

# Tahoe National Forest
# Camp Restoration Project

# Initial Study

May 2015

**Prepared for:**

State of California, Department of Parks and Recreation
Off-Highway Motor Vehicle Recreation Division
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**TAHOE NATIONAL FOREST, YUBA RIVER RANGER DISTRICT**
**CAMP RESTORATION PROJECT**
**INITIAL STUDY**

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# Chapter 1 INTRODUCTION

## 1.1 Introduction

The Camp Restoration Project involves decommissioning and restoring 58 unneeded forest roads and trails (routes) totaling nine miles in the Yuba River Ranger District of the Tahoe National Forest (Figure 1). This restoration project is included in the Camp Project, which is a series of forest management actions being implemented by the U.S. Forest Service (USFS), Tahoe National Forest, to improve forest and watershed health. The Tahoe National Forest completed a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Camp Project in March 2013 (USFS TNF 2013a) and issued a Decision Notice and Finding of No Significant Impact (FONSI) for the project in May 2013 (USFS TNF 2013b).

The California Department of Parks and Recreation (CDPR), Off-Highway Motor Vehicle Recreation (OHMVR) Division, proposes to award Off-Highway Motor Vehicle (OHV) Trust Funds through the Grants and Cooperative Agreements Program to the Tahoe National Forest in support of the Camp Restoration Project. This action is a project subject to review under the California Environmental Quality Act (CEQA). The OHMVR Division has prepared this Initial Study/Negative Declaration (IS/ND) to evaluate the potential environmental effects of awarding grant funding for the Camp Restoration Project.

## 1.2 Regulatory Guidance

Awarding grant funds is a project under the California Environmental Quality Act (Public Resources Code §21000 et seq.) and the CEQA Guidelines (14 CCR §15000 et seq.).

According to CEQA Guidelines section 15070, a public agency shall prepare a proposed ND or a Mitigated ND for a project 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 Mitigated ND 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.

CEQA and the CEQA Guidelines establish the California Dept. of Parks and Recreation, 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 shall conduct an Initial Study to determine if the project may have a significant effect on the environment (CEQA Guidelines §15063(a)).

## 1.3 Lead Agency Contact Information

The lead agency for the proposed project is the OHMVR Division, the agency that would be approving funding for the project. The contact person for the lead agency is:

George MacDougall, OHMVR Division
1725 23rd Street, Suite 200
Sacramento, CA 95816
(916) 324-3788
George.MacDougall@parks.ca.gov

### 1.4 Purpose and Document Organization

The purpose of this document is to evaluate the potential environmental effects of the Camp Restoration Project. This document is organized as follows:

1. Chapter 1 – Introduction. This chapter provides an introduction to the project and describes the purpose and organization of this document.
2. Chapter 2 – Project Description. This chapter describes the project location, area, site, objectives, and characteristics.
3. Chapter 3 – Environmental Checklist and Responses. This chapter contains the Environmental Checklist that identifies the significance of potential environmental impacts (by environmental issue) and a brief discussion of each impact resulting from implementation of the proposed project. This chapter also contains the Mandatory Findings of Significance.
4. Chapter 4 – References. This chapter identifies the references and sources used in the preparation of this document.
5. Chapter 5 – Report Preparation. This chapter provides a list of those involved in the preparation of this document.

### 1.5 Incorporation by Reference

CEQA Guidelines section 15150 allows a ND to incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of the ND.

Pursuant to CEQA Guidelines section 15150, the Camp Restoration Project IS/ND incorporates by reference portions of the EA for the Camp Project prepared by the USFS, Tahoe National Forest in March 2013. The EA has been previously made available for public review in accordance with NEPA requirements. The EA is available for public review at the following locations:

Tahoe National Forest
631 Coyote Street
Nevada City, CA 95959
Contact: Joe Chavez, Trails and Recreation Specialist
Phone: (530) 478-6158

CDPR, OHMVR Division
1725 23rd Street, Suite 200
Sacramento, CA 95816
Contact: George MacDougall, Grant Administrator
Phone: (916) 324-3788

The incorporated portions of the EA are summarized in the relevant sections of the Environmental Checklist in Chapter 3.

# Chapter 2 PROJECT DESCRIPTION

## 2.1 Project Location and Site Description

The Camp Restoration project would take place on USFS land within the Yuba River Ranger District of the Tahoe National Forest. The project area is located off State Route 49 about 30 miles northeast of Yuba City near the community of Camptonville and New Bullards Bar Reservoir (Figure 1). The majority of project sites are located within Yuba County; some occur in Sierra and Nevada Counties.

## 2.2 Project Objectives

The primary objective of the restoration project is to improve forest health by reducing erosion caused by OHV use of unauthorized routes. Secondary objectives include protecting aquatic habitat, restoring hillslope hydrology, accelerating the re-establishment of pre-existing native plant communities, and enhancing wildlife habitat.

## 2.3 Project Characteristics

The route decommission and restoration project involves the following steps: 1) de-compact the hardened soil; 2) restore the hydrologic function of the land; 3) provide effective soil cover (mulch and/or vegetation cover); and 4) install barriers to prevent further incursions on the closed routes (see Photos 1 and 2 in Figure 2). Mulching material can include slash, chipped material, or weed-free rice straw to protect the surface of the trail from erosion. Other erosion-control measures, such as waterbars, may also be needed.

The specific routes that would be decommissioned/restored under the project are shown in Figure 3 and listed along with their mileage in Figures 4 through 6. In total approximately nine miles consisting of 58 routes would be closed, decompacted, and recontoured. This operation does not involve complete obliteration of the road. The road prism would remain intact along with any cut and fills (USFS TNF 2013a).

## 2.4 Construction Activity

Project activities would occur during the typical dry season for the Camp area, which runs from May through October. The project is expected to start in 2015 and would be completed no later than 2017 (18 months total). The project would utilize two pieces of large equipment as follows:

1. A bulldozer (D5 or equivalent) with winged sub-soiler rippers would be used to rip compacted roads that do not require re-contouring. It would also be used to close the routes by creating berms and placing large woody debris and boulders as barriers to motor vehicle use.
2. An excavator would be used to de-compact and re-contour road prisms, remove loose fill in riparian areas, and place large woody debris and boulders as barriers to motor vehicle use.

Operation of the heavy equipment would be limited to the hours between 7:00 a.m. and 5:00 p.m., Monday through Friday. Equipment would be operated no more than one to five days at any one location.

## 2.5 Best Management Practices Incorporated into the Project

The following BMPs would be implemented as needed during project activities:

1. Restore stream courses and floodplains, where feasible, to natural grade and configuration.
2. Remove drainage structures determined as necessary to protect water quality.
3. Prohibit the use of projects with plastic monofilament or cross-joints in the netting that

are bound/stitched (such as found in straw wattles/fiber rolls and some erosion control blankets) which may cause entrapment of wildlife for erosion control. Additionally, any non-biodegradable materials used for erosion control, such as silt fencing, should be removed upon project completion.

4. Re-contour disturbed fill material and compact minimally to allow filtration.
5. Re-contour the road surface cut and fill slopes to restore natural hillslope topography where specified.
6. Decompact areas with stable fill but reduced infiltration and productivity.
7. Haul excess fill to stable disposal areas outside of any Riparian Conservation Areas.
8. Provide effective soil cover (such as mulch, woody debris, rock, vegetation, blankets) to exposed soil surfaces for both short and long term recovery.
9. Block vehicle access in conjunction with signing, publication, and enforcement of the forest's motor vehicle use map to prevent motorized traffic incursions.

### 2.6 Required Approvals

The proposed project occurs on national forest land and has been approved by the USFS in a Decision Memo (USFS TNF 2013b). No other permits or approvals are required for this project.

**Figure 1. Regional Location**

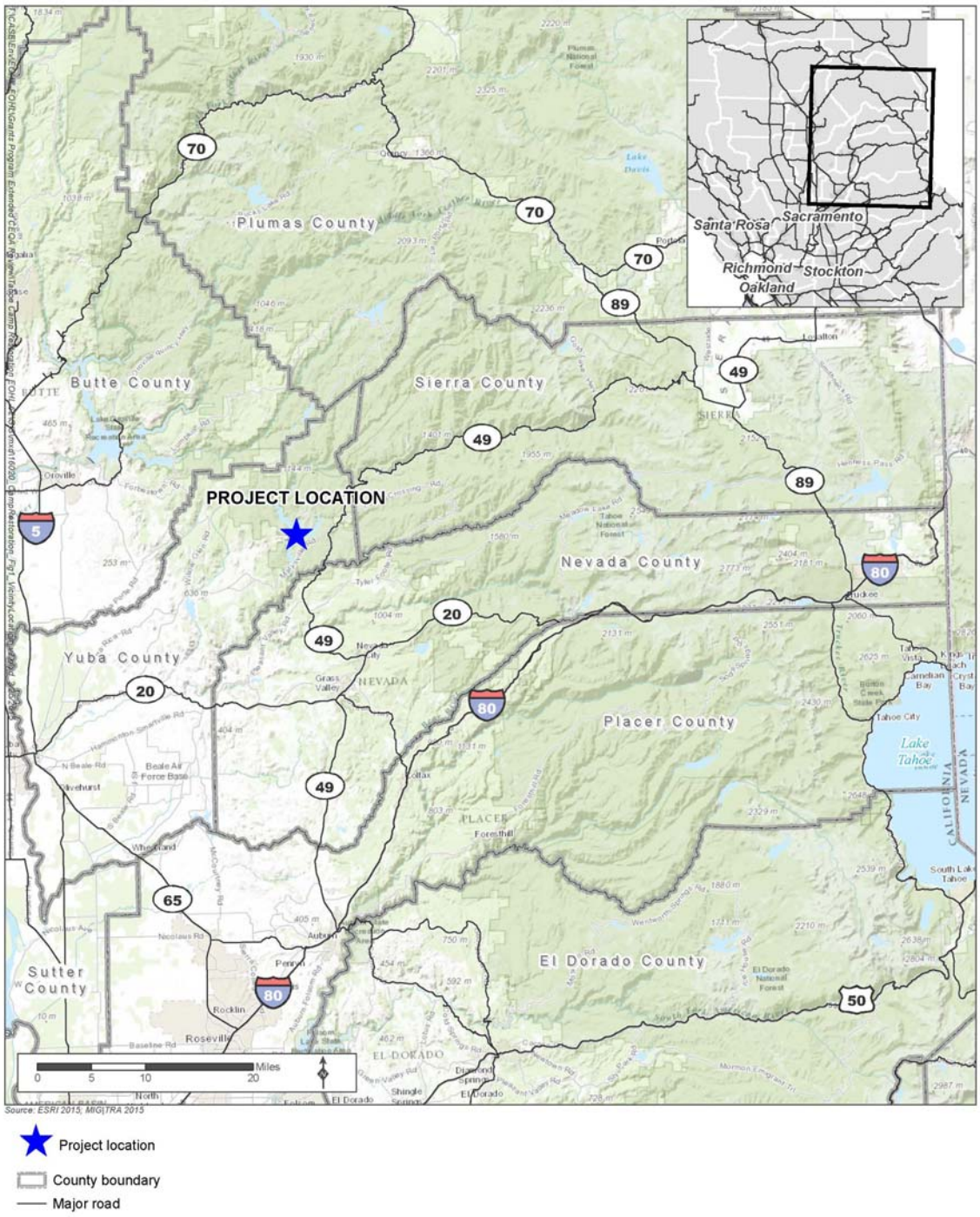



**Figure Number 1** Regional Location

*Tahoe National Forest Camp Restoration Trail Project*

**Figure 2. Site Photos**

**Photo 1:** Non-system Route C190827-6 – Continued motorized use prevents this route from naturally rehabilitating. Restoration activities are needed to effectively close and rehabilitate this route.

**Photo 2:** Example of trail obliteration with slash, logs.

**Figure 3. Camp Restoration Project Overview Map**

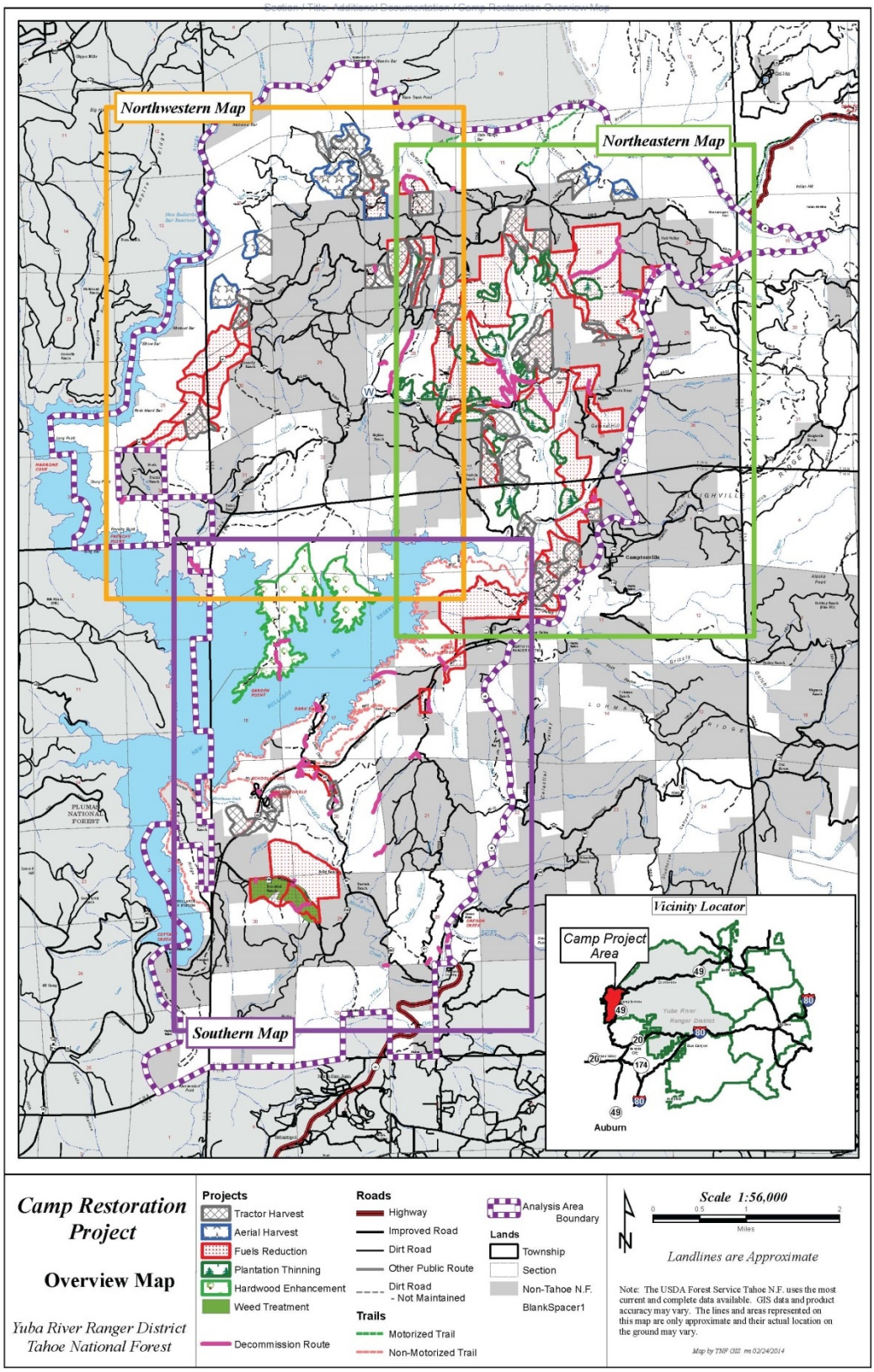
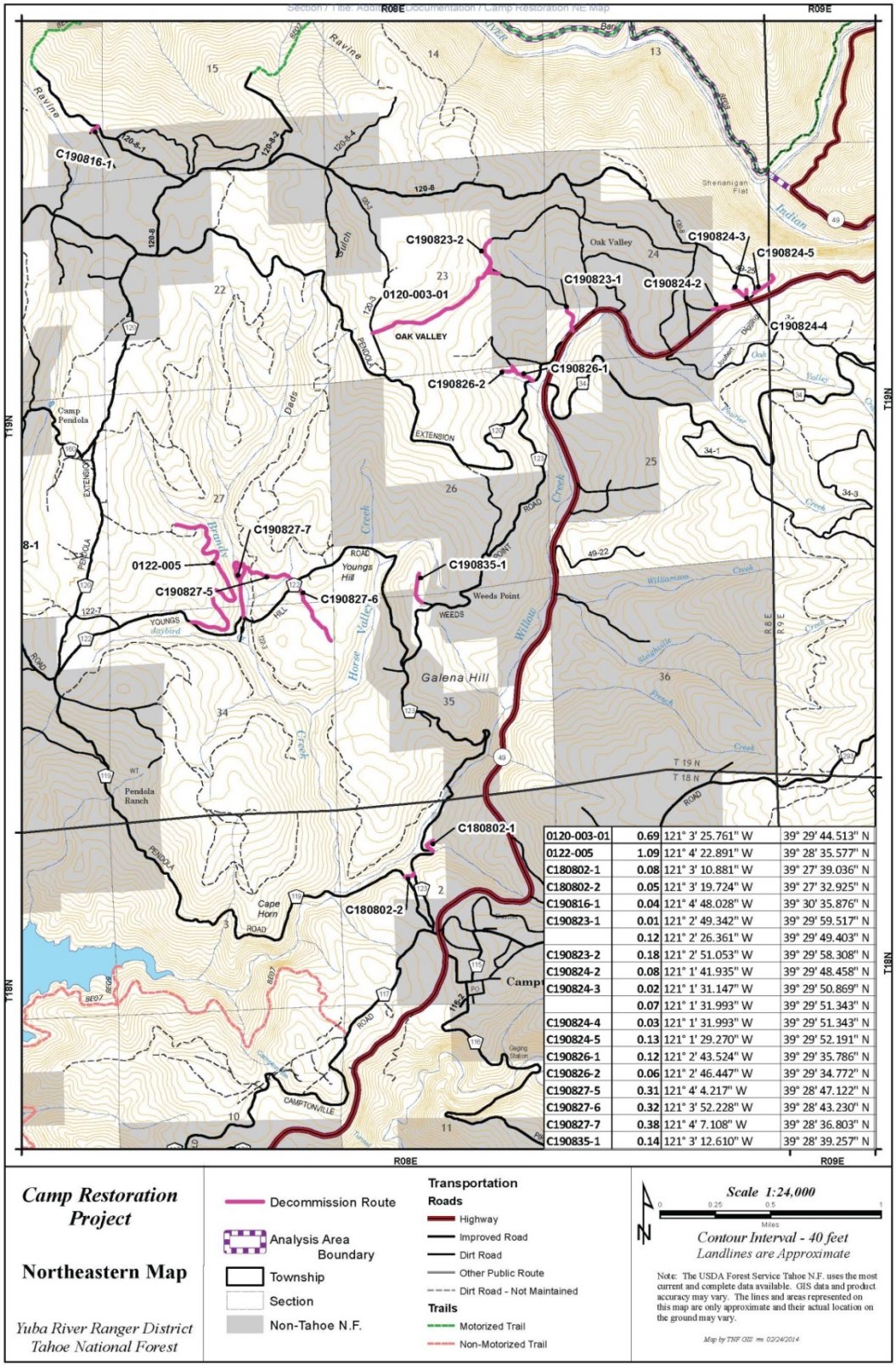
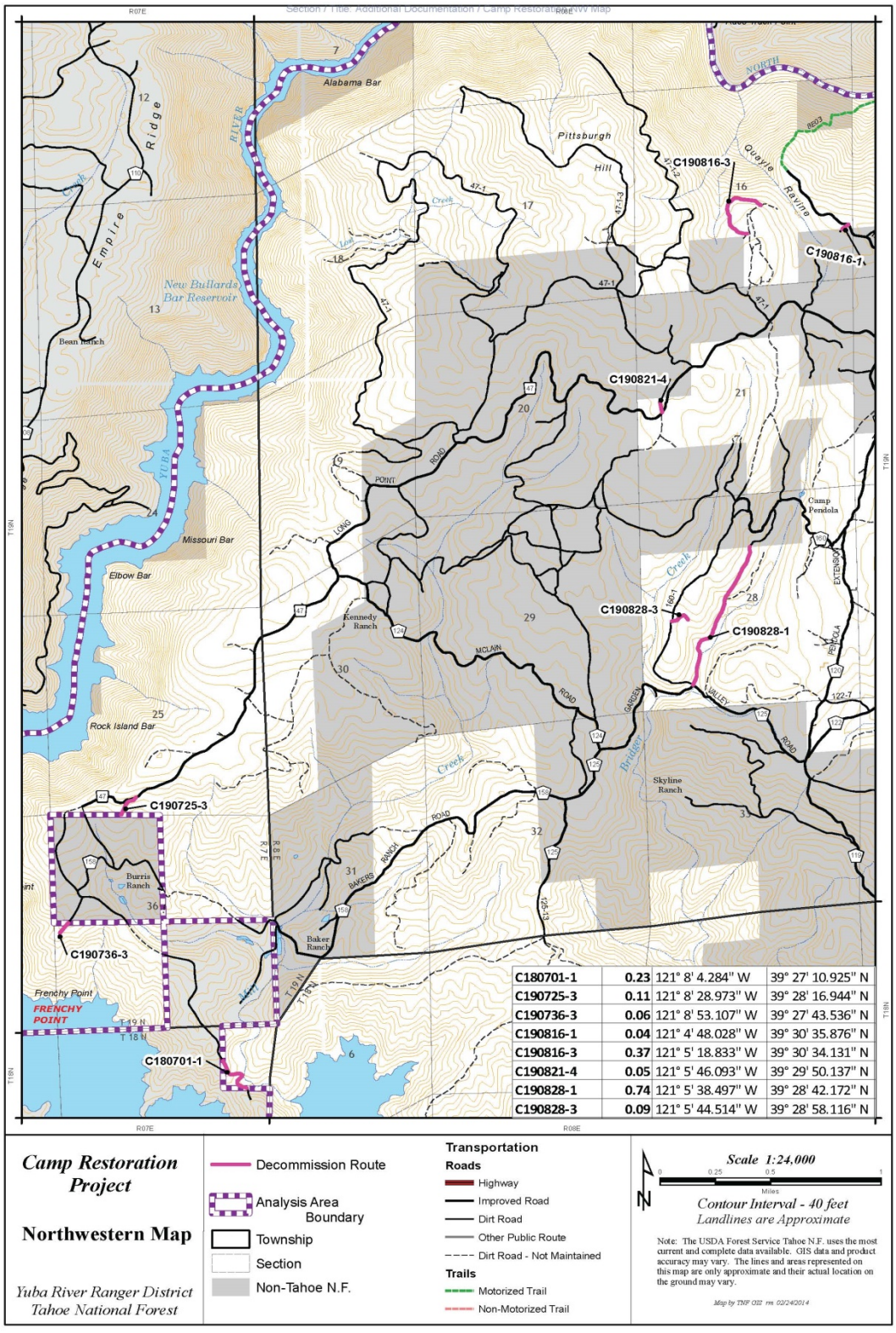


**Figure 4. Camp Restoration Project Northeastern Map**



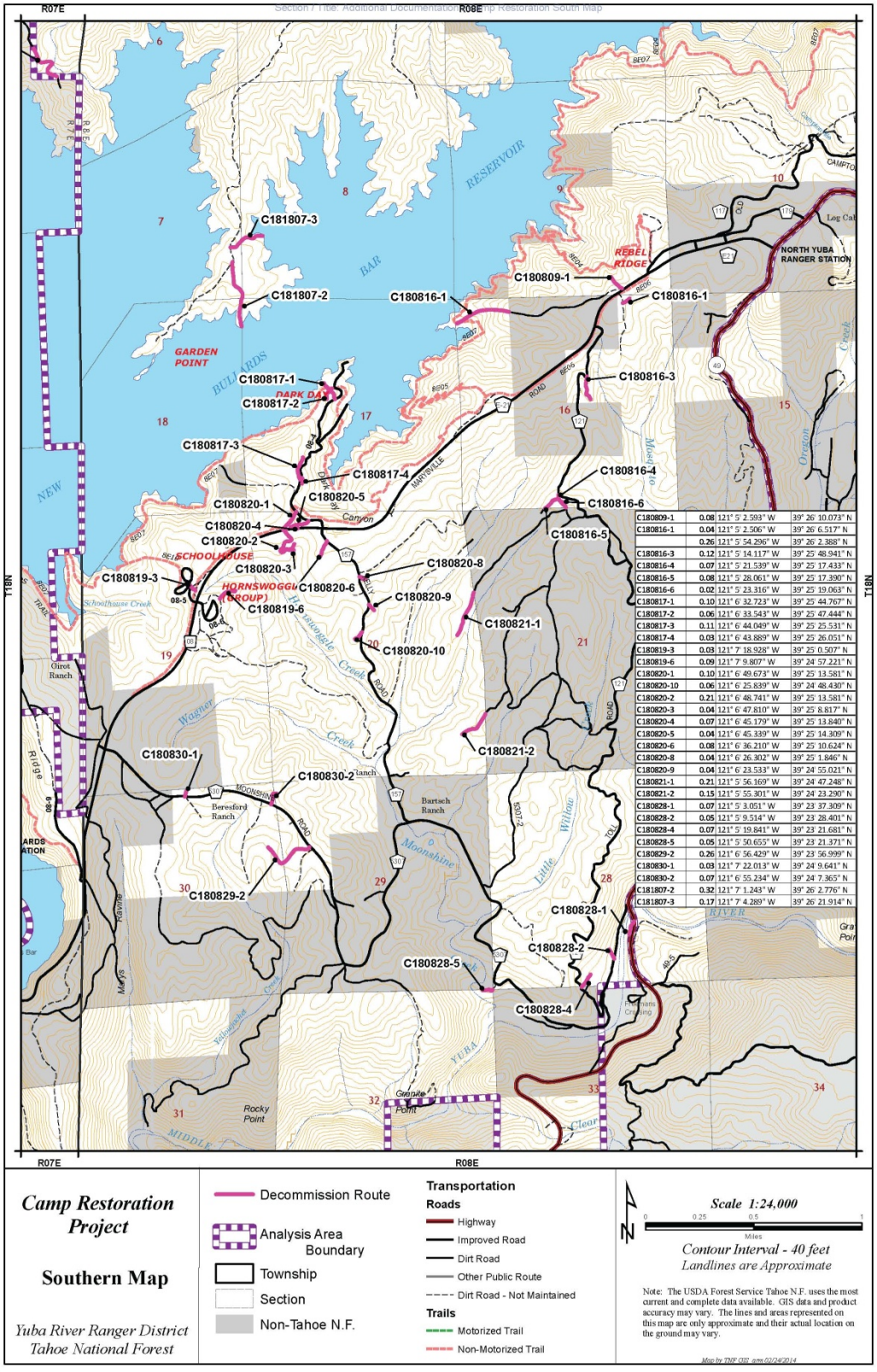

| | | | |
|---|---|---|---|
| 0120-003-01 | 0.69 | 121° 3' 25.761" W | 39° 29' 44.513" N |
| 0122-005 | 1.09 | 121° 4' 22.891" W | 39° 28' 35.577" N |
| C180802-1 | 0.08 | 121° 3' 10.881" W | 39° 27' 39.036" N |
| C180802-2 | 0.05 | 121° 3' 19.724" W | 39° 27' 32.925" N |
| C190816-1 | 0.04 | 121° 4' 48.028" W | 39° 30' 35.876" N |
| C190823-1 | 0.01 | 121° 2' 49.342" W | 39° 29' 59.517" N |
| | 0.12 | 121° 2' 26.361" W | 39° 29' 49.403" N |
| C190823-2 | 0.18 | 121° 2' 51.053" W | 39° 29' 58.308" N |
| C190824-2 | 0.08 | 121° 1' 41.935" W | 39° 29' 48.458" N |
| C190824-3 | 0.02 | 121° 1' 31.147" W | 39° 29' 50.869" N |
| | 0.07 | 121° 1' 31.993" W | 39° 29' 51.343" N |
| C190824-4 | 0.03 | 121° 1' 31.993" W | 39° 29' 51.343" N |
| C190824-5 | 0.13 | 121° 1' 29.270" W | 39° 29' 52.191" N |
| C190826-1 | 0.12 | 121° 2' 43.524" W | 39° 29' 35.786" N |
| C190826-2 | 0.06 | 121° 2' 46.447" W | 39° 29' 34.772" N |
| C190827-5 | 0.31 | 121° 4' 4.217" W | 39° 28' 47.122" N |
| C190827-6 | 0.32 | 121° 3' 52.228" W | 39° 28' 43.230" N |
| C190827-7 | 0.38 | 121° 4' 7.108" W | 39° 28' 36.803" N |
| C190835-1 | 0.14 | 121° 3' 12.610" W | 39° 28' 39.257" N |

**Figure 5. Camp Restoration Project Northwestern Map**




| | | | |
|---|---|---|---|
| C180701-1 | 0.23 | 121° 8' 4.284" W | 39° 27' 10.925" N |
| C190725-3 | 0.11 | 121° 8' 28.973" W | 39° 28' 16.944" N |
| C190736-3 | 0.06 | 121° 8' 53.107" W | 39° 27' 43.536" N |
| C190816-1 | 0.04 | 121° 4' 48.028" W | 39° 30' 35.876" N |
| C190816-3 | 0.37 | 121° 5' 18.833" W | 39° 30' 34.131" N |
| C190821-4 | 0.05 | 121° 5' 46.093" W | 39° 29' 50.137" N |
| C190828-1 | 0.74 | 121° 5' 38.497" W | 39° 28' 42.172" N |
| C190828-3 | 0.09 | 121° 5' 44.514" W | 39° 28' 58.116" N |

**Figure 6. Camp Restoration Project Southern Map**




| | | | |
|---|---|---|---|
| C180809-1 | 0.08 | 121° 5' 2.593" W | 39° 26' 10.073" N |
| C180816-1 | 0.04 | 121° 5' 2.506" W | 39° 26' 6.517" N |
| | 0.26 | 121° 5' 54.296" W | 39° 26' 2.388" N |
| C180816-3 | 0.12 | 121° 5' 14.117" W | 39° 25' 48.941" N |
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| C180816-5 | 0.08 | 121° 5' 28.061" W | 39° 25' 17.390" N |
| C180816-6 | 0.02 | 121° 5' 23.316" W | 39° 25' 19.063" N |
| C180817-1 | 0.10 | 121° 6' 32.723" W | 39° 25' 44.767" N |
| C180817-2 | 0.06 | 121° 6' 33.543" W | 39° 25' 47.444" N |
| C180817-3 | 0.11 | 121° 6' 44.049" W | 39° 25' 25.531" N |
| C180817-4 | 0.03 | 121° 6' 43.889" W | 39° 25' 26.051" N |
| C180819-3 | 0.03 | 121° 7' 18.928" W | 39° 25' 0.507" N |
| C180819-6 | 0.09 | 121° 7' 9.807" W | 39° 24' 57.221" N |
| C180820-1 | 0.10 | 121° 6' 49.673" W | 39° 25' 13.581" N |
| C180820-10 | 0.06 | 121° 6' 25.839" W | 39° 24' 48.430" N |
| C180820-2 | 0.21 | 121° 6' 48.741" W | 39° 25' 13.581" N |
| C180820-3 | 0.04 | 121° 6' 47.810" W | 39° 25' 8.817" N |
| C180820-4 | 0.07 | 121° 6' 45.179" W | 39° 25' 13.840" N |
| C180820-5 | 0.04 | 121° 6' 45.339" W | 39° 25' 14.309" N |
| C180820-6 | 0.08 | 121° 6' 36.210" W | 39° 25' 10.624" N |
| C180820-8 | 0.04 | 121° 6' 26.302" W | 39° 25' 1.846" N |
| C180820-9 | 0.04 | 121° 6' 23.533" W | 39° 24' 55.021" N |
| C180821-1 | 0.21 | 121° 5' 56.169" W | 39° 24' 47.248" N |
| C180821-2 | 0.15 | 121° 5' 55.301" W | 39° 24' 23.290" N |
| C180828-1 | 0.07 | 121° 5' 3.051" W | 39° 23' 37.309" N |
| C180828-2 | 0.05 | 121° 5' 9.514" W | 39° 23' 28.401" N |
| C180828-4 | 0.07 | 121° 5' 19.841" W | 39° 23' 21.681" N |
| C180828-5 | 0.05 | 121° 5' 50.655" W | 39° 23' 21.371" N |
| C180829-2 | 0.26 | 121° 6' 56.429" W | 39° 23' 56.999" N |
| C180830-1 | 0.03 | 121° 7' 22.013" W | 39° 24' 9.641" N |
| C180830-2 | 0.07 | 121° 6' 55.234" W | 39° 24' 7.365" N |
| C181807-2 | 0.32 | 121° 7' 1.243" W | 39° 26' 2.776" N |
| C181807-3 | 0.17 | 121° 7' 4.289" W | 39° 26' 21.914" N |

## **Chapter 3** SUPPLEMENTAL ENVIRONMENTAL ANALYSIS

**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" as indicated by the checklist contained in the supplemental environmental analysis on the following pages.

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

☒ None

**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 ENVIRONMETAL 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. ☐

for Phil Jenkins, Chief, Off-Highway Motor Vehicle Recreation Division

5-6-2015
Date

### 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? | ☐ | ☐ | ☐ | ☒ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | ☐ | ☐ | ☐ | ☒ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The project area is situated within the foothills of the Sierras at between 2,500 and 3,000 feet in elevation. The routes to be decommissioned are in the vicinity of New Bullards Bar Reservoir. The surrounding area includes recreation lands as well as rural residences.

Some project routes contain scenic resources such as trees and rock outcroppings; however, none of the specific routes are located in or designated as a scenic vista. State Route 49 traverses near the project area. The portion of State Route 49 running through Yuba County is eligible for state scenic highway status but is currently not officially designated. The portion of State Route 49 that traverses through Sutter County is officially designated as a state scenic highway (Caltrans 2015). None of the road decommissioning activities would affect views from State Route 49 due to intervening topography and/or vegetation that obscure views to specific project sites from the highway.

Decommissioning activities such as ripping compacted soil and disguising routes would not change the scenic character or substantially degrade the visual quality of the project area and its surroundings. The project would decommission existing routes and restore the disturbed land to more natural land resulting in improved visual quality of the areas treated. 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 are proposed.

### 3.2 Agriculture and Forestry 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

*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).

**Discussion:**

The project is located on USFS land in the foothills of the Tahoe National Forest in the vicinity of New Bullards Bar Reservoir. There is no farmland within or near the project area. Neither the project routes nor the surrounding land contains 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.

No commercial timberland would be affected by the grant funded work. 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.

### 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? | ☐ | ☐ | ☐ | ☒ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☒ | ☐ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☒ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |

**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. Federal, state, and local governments control air quality through the implementation of laws, ordinances, regulations, and standards.

The project area is located near Camptonville in the vicinity of New Bullards Bar Reservoir on the Yuba River Ranger District in Yuba, Sierra, and Nevada Counties. The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Yuba County is located in the eleven-county Sacramento Valley Air Basin, and Sierra and Nevada Counties are located in the seven-county Mountain Counties Air Basin.

Sacramento Valley Air Basin (SVAB). The SVAB occupies approximately 15,040 square miles bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The intervening terrain is flat resembling a bowl-shaped valley.

The SVAB has a Mediterranean climate, characterized by hot, dry summers and mild, rainy winters. Prevailing winds are moderate in strength and vary from moist breezes from the south to dry land winds from the north. The mountains surrounding the SVAB create a barrier to airflow, which under certain meteorological conditions, such as a temperature inversion, can prevent vertical dispersion of pollutants. The highest frequency of air stagnation events occur in the fall and early winter when large high-pressure cells lie over the valley. The concentration of ground level ozone, commonly referred to as smog, is greatest on hot, windless, sunny, summer days (SMAQMD 2014).

Mountain Counties Air Basin (MCAB). Sections of the proposed project are located in Sierra and Nevada County within the MCAB, where topography and climate vary dramatically. Covering an

area of roughly 11,000 square miles, the MCAB lies along the northern Sierra Nevada mountain range close to or contiguous with the Nevada border. Elevations range from a few hundred feet at the Sacramento County boundary to more than 10,000 feet above sea level at the Sierra Crest.

The foothills, mountain peaks, and valleys of the Sierra Nevada range influence local differences in rainfall, temperature, and wind patterns. In general, high elevation areas in close proximity to the Sierra Nevada crest have cooler temperatures and receive much more precipitation than lower elevation foothill areas. During the summer, strong eastward flowing winds transport pollutants from the San Francisco Bay Area Air Basin and Sacramento, and San Joaquin Valley Air Basins into the MCAB (CARB 2004). CARB officially recognizes the MCAB as an area impacted by ozone transport from upwind air basins (17 CCR §70500).

Feather River Air Quality Management District (AQMD). Formed in 1991, the Feather River AQMD administers local, state, and federal air quality management programs for Yuba and Sutter Counties. Although newly established, Feather River AQMD has already developed an extensive list of rules and regulations designated to control and limit emission sources of air pollutants and administer state and federal air pollution control requirements (CARB 2014a). Feather River AQMD is in-attainment of all state and federal ambient air quality standards except national and state ozone and state PM10.

Northern Sierra AQMD. The Northern Sierra AQMD is comprised of Nevada, Plumas, and Sierra Counties. Currently, the Northern Sierra AQMD has nine regulations containing over 140 rules designated to control and limit emissions from sources of air pollutants and administer state and federal air pollution control requirements (NSAQMD 2014a). Attainment status within the northern portion of the MCAB under the jurisdiction of the Northern Sierra AQMD, is either unclassified or in-attainment of all state and federal ambient air quality standards except national and state ozone, state PM10 and state PM2.5 (NSAQMD 2014b).

**Regulatory Setting:**

The federal and state governments have established ambient air quality standards for “criteria” pollutants considered harmful to the environment and public health. National Ambient Air Quality Standards (NAAQS) have been established for carbon monoxide (CO), lead (Pb), nitrogen dioxide ($NO_2$), ozone ($O_3$), fine particulate matter (particles 2.5 microns in diameter and smaller, or PM2.5), inhalable coarse particulate matter (particles between 2.5 and 10 microns in diameter, or PM10), and sulfur dioxide ($SO_2$). California Ambient Air Quality Standards (CAAQS) are more stringent than the national standards for the pollutants listed above and include the following additional pollutants: hydrogen sulfide ($H_2S$), sulfates ($SO_X$), and vinyl chloride. In addition to these criteria pollutants, the federal and state governments have classified certain pollutants as hazardous air pollutants (HAPs) or toxic air contaminants (TACs), such as asbestos.

Attainment Plans.

*Feather River AQMD*

Under the federal Clean Air Act (CAA), the Feather River AQMD has adopted a variety of plans to achieve, demonstrate, or maintain attainment status for nonattainment pollutants. Yuba County continues to be in nonattainment for both state and federal status for ozone and state PM10. In 2009, the Feather River AQMD approved the *Sacramento Regional 9-Hour Ozone Attainment and Reasonable Further Progress Plan*, which includes the information and analyses to fulfill the federal CAA requirement for demonstrating reasonable further progress and attainment of the 1997 8-hour ozone NAAQS in the region. The Feather River AQMD submitted a State Implementation Plan (SIP) on December 2012 solidifying the path to attainment under the federal CAA.

Cogent improvements have been made to control PM2.5 emissions within the Feather River AQMD. In March 2010 the area was redesignated to attainment for annual state PM2.5, and in November 2014, the U.S. Environmental Protection Agency (EPA) redesignated the Yuba City – Marysville area from nonattainment to attainment for PM2.5. Control measure Indirect Source (IS) – 1 is modeled after San Joaquin Valley Air Pollution Control District Rule 9510, *Indirect Source Review* (ISR), which requires controls of mobile source NOx and PM emissions from large projects that are not otherwise subject district permitting.

*Northern Sierra AQMD*

The Northern Sierra AQMD has adopted a variety of plans to achieve, demonstrate, or maintain attainment status for nonattainment pollutants. The southern portion of the Northern Sierra AQMD is in nonattainment for the federal 8-hour ozone standard in western Nevada County, and all of Nevada County is in nonattainment for the state 1-hour ozone standard. The ozone exceedances are primarily due to transportations emissions from the broader Sacramento and San Francisco Bay areas. The federally mandated SIP for achieving ozone attainment states most ozone reductions necessary for attainment status are expected to come from motor vehicles becoming cleaner and from state regulations (NSAQMD 2014c).

Major contributors to the particulate matter nonattainment status in the Northern Sierra AQMD are woodstoves and fireplaces, residential open burning, dust emissions from construction and earth-moving equipment, forestry management burns, transport from agricultural burns, vehicle traffic, and windblown dust (NSAQMD 2009). Rule 207, Particulate Matter (1991), and Rule 226, Dust Control (1994), in the *Northern Sierra AQMD Rules & Regulations,* discusses methods to alleviate and control fugitive dust that would work to achieve attainment status (further discussed below).

Vehicle Emissions. In addition to ambient air quality standards, the federal and state governments have established exhaust emission standards for on and off-road vehicles, such as cars, trucks, recreational vehicles, and heavy-duty diesel construction equipment, as well as the fuels these vehicles use.

Naturally Occurring Asbestos (NOA). The Statewide *Asbestos Airborne Toxic Control Measure for Surfacing Applications,* codified in the California Code of Regulations (CCR, Title 17, §93105), contains requirements for projects located in areas mapped as having, or observed to have, ultramafic rock or serpentine.

Fugitive Dust Control. As provided by California Health and Safety Code (§41701; 1991), a person shall not discharge into the atmosphere from any single source of emissions whatsoever, any air contaminants for a period or periods aggregating more than three minutes in any one hour that is: (a) as dark or darker in shade as designated as No. 2 on the Ringlemen Chart, as published by the United States Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection a above. Furthermore, the California Vehicle Code (§23114 (e)(4)) requires no vehicle shall transport any aggregate material upon a highway unless the material is covered, unless subject to an exception.

*Feather River AQMD*

Rule 3.16, *Fugitive Dust Emissions* (1994), in the *Feather River AQMD Rules & Regulations*, requires that a person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land, or solid waste disposal operation.

*Northern Sierra AQMD*

Rule 207, *Particulate Matter* (1991), in the *Northern Sierra AQMD Rules & Regulations*, prohibits excessive release or discharge into the atmosphere from any source or single processing unit. Rule 226, *Dust Control* (1994), further establishes guidelines that may be used to address the nonattainment levels of state PM10 by controlling various source categories, such as the implementation of chemical soil stabilization/suppression materials.

General requirements of Rule 207 include taking all reasonable precautions to prevent dust emissions, including, but not limited to, cessation of operations, cleanup, sweeping, sprinkling, compacting, enclosure, chemical or asphalt sealing, and the use of wind screens or snow fences. Additionally, among other provisions, Rule 226 limits visible emissions, vehicle use, dust sources, and activities under sustained winds that result in visible dust emissions. Additionally, submission of a Dust Control Plan to the Northern Sierra AQMD for approval prior to any surface disturbance, including clearing vegetation, is required (NSAQMD 2009).

Federal Clean Air Act (CAA) Conformity. Adopted by Congress as part of the CAA Amendments in 1990 and implemented in 1993 by the U.S. EPA, Transportation and General Conformity regulations establish criteria and procedures for providing coherence between federal activities and the SIP. Conformity between state and federal plans helps ensure that actions taken by the federal government do not undermine regional or state efforts to achieve and maintain the NAAQS.

**Discussion:**

a) Air Quality Plan. The Feather River AQMD and the Northern Sierra AQMD are responsible for maintaining air quality and regulating emissions of criteria pollutants and TACs within Yuba County, and Sierra and Nevada Counties, respectively. The AQMDs uphold their responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards. The proposed project would not conflict with or obstruct implementation of the regional and federal ozone or particulate matter attainment plans, as described in the previous section. The project would not increase urban growth, introduce new stationary sources of air pollutants, or result in new land uses within either the Feather River AQMD or the Northern Sierra AQMD. Therefore, the project does not conflict with or obstruct an applicable air quality plan.

b) Air Quality Standards and Violations. The Camp Restoration Project proposes to decommission approximately nine miles of unused routes by de-compacting/re-contouring the trails and covering the area with slash. Potential temporary project emissions from these activities include equipment operation and hauling of slash. Construction would occur during the dry season, typically May through October, and the project would utilize a bulldozer (d5 or equivalent) and an excavator.

Project emissions were modeled using California Emissions Estimate Model (CalEEMod) version 2013.2.2. Table 1 summarizes the estimated construction emissions, which include dust control measures (e.g., watering, stabilizing disturbed areas). As outlined in Table 1, estimated emissions from the proposed project are below criteria pollutant thresholds and would not constitute a significant impact to the air quality. Implementation of applicable BMPs and management requirements would minimize the emission of criteria pollutants. In accordance with Feather River AQMD Rules and Regulations, the proposed project would implement the following reasonable precautions including, but not limited to (FRAQMD 2012):

- Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, construction of roadways, or the clearing of land;

- Application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts; and
- Other means approved by the Air Pollution Control Officer.

**Table 1. Estimated Construction Emissions from Proposed Project**

| | Criteria Pollutants (lbs/day) | | | | |
|---|---|---|---|---|---|
| | **ROG** | **NOx** | **CO** | **PM10** | **PM2.5** |
| 2015 Emissions | 0.89 | 9.92 | 7.64 | 38.40(A) | 4.76(A) |
| 2016 Emissions | 0.97 | 7.02 | 5.71 | 32.17(A) | 4.63(A) |
| FRAQMD CEQA Threshold | 25 | 25 | N/A(B) | 80 | N/A(B) |
| NSAQMD CEQA Threshold(C) | <24 | <24 | N/A(B) | <79 | N/A(B) |
| Significant CEQA Impact? | No | No | No | No | No |

Source: CalEEMod v2013.2.2, FRAQMD 2010, NSAQMD 2009, MIG|TRA 2015 (A) – Emissions levels include implementation of Fugitive Dust BMPs as specified in Feather River AQMD and Northern Sierra AQMD CEQA Guidelines, specifically *FRAQMD Rules 3.0* and *3.16* (FRAQMD 2012) and/or *NSAQMD Mitigations for Use During Design and Construction Phases* (NSAQMD 2009)
(A) – Level A Threshold
(B) – Not yet established

The Northern Sierra AQMD requires all construction activities to submit a dust control plan. Recommended dust control plan conditions are listed below (NSAQMD 2009):

- The applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.
- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or violation of ambient air standard. Watering should occur at least twice daily, with complete site coverage.
- All land clearing, grading, earth-moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expended to exceed 20 mph.
- All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance, and there must be a minimum of six inches of freeboard in the bed of the transport vehicle.

c) Non-Attainment Criteria Pollutants. As discussed in (a) and (b) above, the project would not result in construction or operational emissions that exceed Feather River AQMD or Northern Sierra AQMD thresholds of significance. The thresholds of significance take into account the emission levels at which a project's individual emissions would be cumulatively considerable, in addition to the isolated project emissions levels. Since the proposed project would not individually exceed any Feather River AQMD or Northern Sierra AQMD CEQA significance thresholds, the proposed project would not result in significant cumulative air quality impacts.

d) Sensitive Receptors. A sensitive receptor is generically defined as a location where human populations, especially children, seniors, and sick persons, are situated where there is reasonable expectation of continuous human exposure to air pollutants. These typically include

residences, hospitals, and schools. Construction emissions would be minimal at each location and would not expose sensitive receptors to substantial pollutant concentrations. There would be a less than significant impact to sensitive receptors.

e) Odors. The project is in a remote location absent of sensitive receptors and populated areas. The project, therefore, would not expose sensitive receptors to potential odors associated with fuel combustion of construction equipment.

### 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 Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☒ | ☐ |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

**Regulatory Setting:**

The Tahoe National Forest addressed applicable federal management direction policies related to biological resources in the following supporting reports to the Camp Project EA: the Camp Biological Evaluation / Biological Assessment (Tierney 2013a), the Camp Management Indicator Species Report (Tierney 2013b), and the Camp Plant Biological Evaluation (Van Zuuk 2013), all of which are incorporated into this Camp Restoration Project IS by reference.

California Endangered Species Act. The California Endangered Species Act (CESA), administered by California Department of Fish and Wildlife (CDFW), 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.

The CDFW 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 that 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 that would prevent jeopardy (California Fish and Game Code §2053). Under sections 2080.1 and 2081(b) of the California Fish and Game Code, CDFW 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). Fully protected species may not be taken or possessed except for scientific research or through approval and implementation of a Natural Communities Conservation Plan.

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.

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 CNPPA. Various activities are exempt from the CNPPA, although take as a result of these activities may require other authorization from CDFW under the California Fish and Game Code.

CDFW and CEQA. As a trustee agency, CDFW comments on the biological impacts of development projects reviewed under CEQA. CEQA gives CDFW jurisdiction to comment on the protection of habitats deemed necessary for any species to survive in self-sustaining numbers, but does not allow CDFW to govern land use. It stipulates that the state lead agency shall consult with, and obtain written findings from, CDFW 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).

**Discussion:**

a) 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. The Tahoe National Forest analyzed project impacts to federal and USFS special-status species in the Camp Project EA (pp. 90-111) and in EA Appendix E, Executive Summaries. The EA analysis and its supporting reports, the Camp Biological Evaluation / Biological Assessment (Tierney 2013a), the Camp Management Indicator Species Report (Tierney 2013b), and the Camp Plant Biological Evaluation (Van Zuuk 2013), are incorporated into this Camp Restoration Project IS by reference. The EA and resulting Decision Memo and FONSI concluded that "the selected alternative would not affect any federally threatened or endangered species or their designated critical habitat. The selected alternative will not cause a trend toward Federal listing or a loss of viability for any Forest Service Pacific Southwest Region Sensitive Species" (EA pp. 172-176).

CEQA Guidelines section 15380 defines endangered, threatened, and rare species for purposes of CEQA and clarifies that CEQA review extends to other species that are not formally listed under the CESA or federal ESA but that meet specified criteria. The state and federal governments keep lists of such "special-status" species, which are reflected in the California Natural Diversity Database (CNDDB). Many of these species are not listed under either ESA but are currently tracked to determine if listing is necessary. Thus, they are not specifically protected by CESA or the federal ESA. They are only protected through measures imposed as a result of CEQA review.

The California Native Plant Society (CNPS) has a list of plants that are considered to be rare, threatened, or endangered in a portion or all of their range; these plants may not have been listed by CDFW or the U.S. Fish and Wildlife Service, but they are considered sensitive under CEQA. Thus, the lead agency should consider impacts to these species when assessing the effects of a particular project, even if the project is otherwise exempt from CEQA.

For this CEQA analysis special-status species include the following species categories not addressed in the Camp Project NEPA documents:

- Species that are federal or state listed threatened or endangered
- Species considered as candidates or proposed for federal or state listing as threatened or endangered
- CDFW Species of Special Concern
- Fully protected species per California Fish and Game Code
- Plants considered by CNPS and CDFW 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 not addressed by the EA are listed in Table 2. There were no special-status animal species identified that were not addressed by the EA. Identification of special-status species was done in accordance with the CEQA Guidelines using information from CNDDB (2014) and CNPS Rare Plant Inventory (CNPS 2014). For the CNDDB search, the Camptonville USGS 7.5 minute quadrangle and eight adjacent quadrangles were searched.

Table 2 identifies four California special-status plant species that were not evaluated by the Tahoe National Forest in the Camp EA. All four of these species have low potential to occur within the project area because habitat requirements are not met (no serpentine or gabbroic soils; no wetland waters, e.g., meadows, seeps, marshes, and seeps).

**Table 2. Special-Status Plant Species Potentially Occurring Within the Project Area**

| Species | Listing Status[1] | Habitat | Life Form/ Blooming Period | Potential for Occurrence in Project Area |
|---|---|---|---|---|
| Layne's ragwort (*Packera layneae*) | FT CRPR 1B.2 | Grows in chaparral and mountain woodlands; requires gabbroic or serpentine soils. | Perennial herb, blooms early May–early Jul. | **Low.** Project routes do not include gabbroic or serpentine soils. |
| Brownish beaked rush (*Rynchospora capitellata*) | CRPR 2B.2 | Mesic, lower mountain coniferous forest, meadows and seeps, marshes and swamps. | Perennial herb, blooms July-August | **Low.** Project routes do not include suitable water habitat areas. |
| Buxbaumia moss (*Buxbaumia viridis*) | CRPR 2B.2 | Fallen, decorticated wood or humus in lower mountain coniferous forest | N/A; moss | **Low.** NF surveys indicate that this species does not occur in the Tahoe NF. Also project routes do not include suitable water habitat areas. |
| Dissected-leaved toothwort (*Cardamine pachystigma* var. *dissectifolia*) | CRPR 1B.2 | Usually serpentinite, rocky chaparral, lower montane coniferous forest. | Perennial rhizomatous herb, blooms February to May | **Low.** Project routes do not include serpentine soils. |

[1] Listing Status Key:

FT – Federal Threatened 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 more common elsewhere.
CRPR Threat Code extensions and their meanings:
.2 – Fairly endangered in California (20-80% occurrences threatened)

*Source: CDFW 2014*

Project activities are not likely to result in direct or indirect impacts to the four California special-status plant species identified in Table 2 above as none of the species are expected to occur due to the lack of suitable habitat.

b and c) Riparian Habitat and Wetlands. The Tahoe National Forest addressed project impacts to riparian and aquatic habitat and wetlands in the Camp Project EA (p. 74). This impact analysis is incorporated into this Initial Study by reference. According to the EA "decommissioning activities would have little direct or indirect effects on riparian and aquatic resources when management requirements, Camp Riparian Conservation Area (RCA) Guidelines, and BMPs are implemented."

d) Wildlife Movement. 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.

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. Although local wildlife movement may be impacted near project routes, the affected areas are confined to work sites within large tracts of mostly 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.

e and f) Local Protection Policies and Conservation Plans. 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.

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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |

**Discussion:**

a and b) Historical and Archaeological Resources. The Tahoe National Forest analyzed project impacts to heritage resources in the Camp Project EA (pp. 144, 171). This information is incorporated into this IS by reference. According to the EA, "the Camp Project area is near historic and/or prehistoric sites, but project actions have been designed to avoid cultural resource sites eligible for inclusion in the National Register of Historic Places (NRHP), with the result that there would be no direct or indirect effects to any cultural resources eligible for inclusion in the National Register. Project actions would fully comply with the National Historic Preservation Act (NHPA), and implementing programmatic agreements (PAs)."

The Camp Restoration Project area has been inventoried for cultural resources as part of the larger Camp Project approved by the USFS. The file number for the cultural resource report is R2015051700014 (Slater and Krautkramer 2014). The inventory documents the presence of prehistoric and historic archaeological sites and several isolated features. Cultural resources would be managed according to provisions of the National Historic Preservation Act (NHPA) and implementing programmatic agreements (PAs). Adverse effects to cultural resources would be avoided by project design and site avoidance following standard forest practices that have been developed to implement the applicable NHPA provisions and to be consistent with the Region 5 Programmatic Agreement of 2006. Management requirements related to cultural resources are listed in Table 2-4 Camp Project Management Requirements (EA, pp. 32-33). Additionally, Slater and Krautkramer included the following management recommendations in their report:

> The cultural resources located in the project APE should be managed according to provisions of the Regional PA 2013. Cultural resources will be flagged for avoidance and should not be used as staging areas. Decommissioning road segments within cultural resource boundaries should be limited to felling trees or placing boulders to restrict traffic. Road decommissioning within site boundaries will require Heritage Program Manager approval and involve monitoring by a cultural resource specialist.

The project would not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP.

Unknown historic resources are addressed by the PA in effect between Tahoe National Forest and the State Historic Preservation Officer (SHPO; USFS 2006). As specified in the PA (Appendix C: Heritage Resources Strategy; Evaluation of Historic Properties, p.51), "For the purposes of this strategy, all cultural resources within APEs are considered *historic properties,* even if they have not been formally evaluated using NRHP Criteria (36 CFR 60.4), unless they already have been determined *not eligible* in consultation with the SHPO or through other agreed on procedures (36 CFR 60.4; 36 CFR 800; CARIDAP, etc.)."

By definitions within the PA, historic properties cover the following archaeological resources:

> F. Historic Property is: any prehistoric or historic district, site, building, structure, or object, and its associated artifacts, remains, features, settings, and records, that is either listed in or determined eligible for inclusion in the NRHP; or any feature that contributes to district NRHP eligibility; or any property, and its features, not yet evaluated to determine whether it is eligible for the NRHP, but that, for the purposes of this PA, may be assumed by the Forests to be NRHP eligible.
>
> J. At Risk Historic Property is a property that the Forest Heritage Resource Manager identifies as susceptible to being adversely affected as a result of designating a motor vehicle route, or using or maintaining the designated motorized recreation system. An at risk historic property is identified based on property characteristics and proximity to designated routes (e.g., trail corridor, trail head, vista point).

The PA (Section VII, Inadvertent Effects and Unanticipated Discoveries) provides protection to unknown historic resources that may be discovered in a project area. It requires national forests to notify the SHPO immediately if unanticipated discovery of at risk historic properties is made during project implementation and sites have been impacted by project activities. "If undertakings have not been completed at the time effects are discovered, all activities in the vicinity of the affected historic properties shall cease and reasonable efforts shall be taken to avoid or minimize harm to the properties until the following consultations are completed. Forests shall consult with the SHPO for not more than 10 calendar days after discovery to agree on a mutually acceptable course of action regarding the historic properties."

Furthermore, if unknown or unidentified historic resources are inadvertently damaged during project activities, remediation measures would be determined in consultation with SHPO not more than 10 calendar days after discovery.

c) Paleontological Resources. The road decommissioning and restoration sites have been disturbed by past grading to create the road prisms. As a result there is low likelihood for in situ paleontological resources to be disturbed by project activities.

d) Human Remains. If human remains are inadvertently discovered, the Tahoe National Forest will follow the procedures as outlined in California Health and Safety Code section 7050.5. All project activities at the find site must come to a complete stop and no further excavation or disturbance of the area or vicinity will occur. The county coroner will be contacted immediately, and if the corner determines or has reason to believe that the remains are Native American, the coroner will contact the Native American Heritage Commission (NAHC) within 24 hours of making this determination. Whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner the NAHC will follow the procedures as outlined in Public Resources Code section 5097.98.

The CEQA Guidelines (14 CCR §15064.5(e)) reference the appropriate state law (PRC §5097.98) that applies when human remains are accidentally discovered. This language states:

> In the event that human remains are accidently discovered, the project must come to a complete stop and no further excavation or disturbance of the area or vicinity will occur. The county coroner is to be called immediately to determine

> that the remains are of Native American ancestry. If the coroner confirms that the remains are Native American, within 24 hours of the discovery the coroner is to contact the [NAHC]. The NAHC will identify the person(s) believed to be the Most Likely Descendent (MLD), and the MLD will decide, along with the property owner, to appropriate treatment or disposal of the human remains and associated grave goods as provided in PRC §5097.98. If the NAHC cannot identify the MLD, the MLD fails to make a recommendation, or the property owner rejects the MLD's recommendations, the property owner can rebury the remains and associated burial goods in an area not subject to ground disturbance (14 CCR §15064.5).

Existing state Public Resources Code and Health and Safety Code will ensure that the NAHC will be notified upon discovery of Native American human remains and that proper treatment measures will be implemented. Therefore, with these protective state laws in place, the project impact on human remains is less than significant.

Associate State Archaeologist for the OHMVR Division, Sarah Wallace, has reviewed the EA, Historic Resources Report, and PA as part of the state's CEQA review process for this project and concurs with the findings that project impacts on cultural resources are less than significant due to implementation of USFS management requirements. No further mitigation is warranted.

### 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. | ☐ | ☐ | ☐ | ☒ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ☒ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ☒ |
| iv) Landslides? | ☐ | ☐ | ☐ | ☒ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

a) Seismicity. There are no faults running through the project area. The nearest known fault is near Bangor in Butte County roughly 20 miles west of the project area (CGS 2012). Rupture of a surface fault, seismic shaking, liquefaction, or landslides would not affect project routes and therefore would not expose people to potential substantial adverse effects such as loss, injury, or death.

b) Soil Erosion. Soil impacts were evaluated for the decommissioning project in the EA (p. 82). This analysis is incorporated by reference. The EA states the "proposed action to decompact and reestablish at least 50 percent effective soil cover would promote the return of vegetation to increase infiltration and decrease accelerated erosion."

c) Soil Stability. Project activities do not involve building structures that would be affected by unstable soils.

d and e) Expansive Soils and Septic. The project does not propose building construction on expansive soils or use of soils for septic purposes.

## 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? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions or greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

**Environmental Setting:**

Gases that trap heat in the atmosphere and affect regulation of the earth's temperature are known as "greenhouse" gases (GHG). Many chemical compounds found in the earth's atmosphere exhibit the GHG property. GHG allow sunlight to enter the atmosphere freely. When sunlight strikes the earth's surface, some of it is reflected back towards space as infrared radiation (heat). GHG absorb this infrared radiation and trap the heat in the earth's atmosphere. The six common GHG are described below.

Carbon Dioxide ($CO_2$). $CO_2$ is released to the atmosphere when fossil fuels (oil, gasoline, diesel, natural gas, and coal), solid waste, and wood or wood products are burned.

Methane ($CH_4$). $CH_4$ is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in municipal solid waste landfills and the raising of livestock.

Nitrous oxide ($N_2O$). $N_2O$ is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

Sulfur hexafluoride ($SF_6$). $SF_6$ is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of $SF_6$ occur during maintenance and servicing as well as from leaks of electrical equipment.

Hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). HFCs and PFCs are generated in a variety of industrial processes. Although the amount of these gases emitted into the atmosphere is small in terms of their absolute mass, they are potent agents of climate change due to their high global warming potential.

**Regulatory Setting:**

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific greenhouse gases – $CO_2$, $CH_4$, $N_2O$, and $SF_6$ – and two groups of gases – HFCs and PFCs. These GHG are the primary GHG emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Black carbon consists of particles emitted during combustion; although a particle and not a gas, black carbon also acts to trap heat in the earth's atmosphere.

GHG can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its global warming potential (GWP). The reference gas for measuring GWP is $CO_2$, which has a GWP of one. By comparison, $CH_4$ has a GWP of 25, which means that one molecule of $CH_4$ has 25 times the effect on global warming as one molecule of $CO_2$. Multiplying the estimated emissions for non-$CO_2$ GHG by their GWP determines their carbon dioxide equivalent (CO2e), which enables a project's combined global warming potential to be expressed in terms of mass $CO_2$ emissions. Table 3 presents the GWP values of the common GHG.

**Table 3. Global Warming Potential of Common Greenhouse Gases**

| GHG | GWP | GHG | GWP |
|---|---|---|---|
| Carbon Dioxide ($CO_2$) | 1 | Perfluorocarbons (PFCs) | |
| Methane ($CH_4$) | 25 | $CF_4$ | 6,500 |
| Nitrous Oxide ($N_2O$) | 298 | $C_2F_6$ | 9,200 |
| Hydrofluorocarbons (HFCs) | | $C_4F_{10}$ | 7,000 |
| HFC-23 | 14,800 | $C_6F_{14}$ | 7,400 |
| HFC-134a | 1,430 | Sulfur Hexafluoride ($SF_6$) | 22,800 |
| HFC-152a | 140 | | |
| HCFC-22 | 1,700 | | |

*Source: CARB 2014b*

In 2006, the California State Legislature adopted the California Global Warming Solutions Act of 2006, Assembly Bill (AB) 32, which required 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 2009, California's first Climate Change Scoping Plan projected 2020 statewide GHG emission of 596 million MTCO2e under a "business as usual" (BAU) scenario absent further regulation (CARB 2009). In order to reduce the predicted emissions levels, the Scoping Plan identified mandatory rules and regulations, as well as voluntary measures that would reduce 2008 current emissions by at least 169 million MTCO2e to 1990 levels by 2020 (CARB 2009). In 2011, CARB released a supplement to the 2008 Scoping Plan Functional Equivalent Document (FED) that included an updated 2020 BAU statewide GHG emissions level projection of 507 million MTCO2e (CARB 2011). In 2014, CARB adopted its First Update to the Climate Change Scoping Plan including a revised target 2020 GHG emissions level of 431 million MTCO2e (CARB 2014b).

**Discussion:**

Global climate change is the result of GHG emissions worldwide; individual projects do not generate enough GHG emissions to influence global climate change. Thus, the analysis of GHG emissions is by nature a cumulative analysis focused on whether an individual project's contribution to global climate change is cumulatively considerable.

a) Greenhouse Gas Emissions. The Camp Project proposes to decommission approximately nine miles of unused routes by decompacting or recontouring the trails and covering the area with slash. Potential temporary project emissions from construction include equipment operation

and slash hauling. The proposed project would involve short term construction activity occurring during the dry season, typically May through October, and the project would utilize a bulldozer (d5 or equivalent) and an excavator.

Project emissions were modeled using California Emissions Estimate Model (CalEEMod) version 2013.2.2 and are summarized in Table 4. Full results are attached as Appendix A. According to the 2011 CARB *GHG Inventory Data* (CARB 2011b) for off-road construction sector, emissions of $CH_4$ and $N_2O$ would add approximately 0.34 percent in $CO_2$ equivalent emissions. In the on-road transportation sector, emissions of $CH_4$ and $N_2O$ from worker vehicles would add 1.4 percent in $CO_2$ equivalent emissions. GHG emissions related to project construction are approximately 78 MTCO2e.

**Table 4. Project Construction GHG Emissions**

| | Project Emissions (Metric Tons) | |
|---|---|---|
| | CO2 | CO2e |
| 2015 Emissions | 77.67 | 78.14 |
| 2016 Emissions | 77.57 | 78.04 |
| **Total GHG Emissions** | 155.24 | 156.18 |

Source: CalEEMod v2013.2.2, CARB 2011b, MIG|TRA 2015

Neither Feather River AQMD nor Northern Sierra AQMD has significance thresholds for GHG emissions. For reference purposes, Sacramento Metropolitan AQMD recently implemented a GHG emissions threshold of 1,100 MTCO2e per year (SMAQMD 2014). Project emissions would be well below this reference threshold. The short duration of the project construction employs only two heavy duty construction vehicles resulting in low GHG emissions that would not have a significant impact on the environment.

b) Plans, Policies, and Regulations. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Construction vehicle and equipment 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. Moreover, 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? | ☐ | ☐ | ☐ | ☒ |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ☐ | ☒ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☐ | ☒ |

Hazards and hazardous materials were not evaluated in the project NEPA documents (EA and FONSI). A discussion of these CEQA factors is presented below.

**Discussion:**

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, corrosively, and

reactivity, cause a substance to be considered hazardous. These properties are defined in the California Code of Regulations (CCR, Title 22, §§ 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 could be considered hazardous.

a – d) Hazardous Materials. The project routes do not contain any hazardous materials nor are any hazardous materials planned to be brought to the project routes, 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.

There are no schools within one-quarter mile of the project routes.

None of the specific project routes are located on the list of hazardous materials sites pursuant to Government Code section 65962.5 (USFS TNF 2014c). The routes are not anticipated to contain any hazardous materials and are therefore not considered to pose an impact related to hazardous materials.

e and f) Airports. None of the specific project routes are located within an area that has an airport land use plan. The nearest public use airport is the Brownsville Airport, a general aviation airport more than 10 miles away. The project activities would not impact airport operations or create aviation related safety issues.

g) Emergency Plans. Decommissioning of the project routes would not change access into or out of Tahoe National Forest or otherwise impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h) Wildland Fires. No construction of structures that would be susceptible to wildfires is proposed to be built on any of the project routes.

### 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? | ☐ | ☐ | ☐ | ☒ |
| 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 stormwater 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) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

a) Water Quality Violations. The decommissioning project would not create discharges or new sources of runoff. The project would not cause the violation of any water quality standards or waste discharge requirements.

b) Groundwater Supplies. The decommissioning project would not increase water use, create a demand on groundwater supply, or otherwise interfere with groundwater volumes or recharge rates. Groundwater supplies would be unaffected by the project. No impervious surfaces would be added to the project routes. The project would not result in removal of stormwater runoff from the project area.

c) Erosion and Siltation. The Camp Project EA addresses the impacts of the road decommissioning project on hydrology (p. 74) and includes several BMPs specific to the road decommissioning activities that address erosion and siltation (pp 53-55). This analysis is incorporated by reference. The EA states “erosion control devices (waterbars) and in some cases mulch would be deposited on the road surface to minimize erosion. The entrance to the road would be blocked by construction of double earthen barriers to prevent future use. The project is designed to promote natural recovery of the road surface by restoring the natural hydrologic function (infiltration capacity) of the soil in the roadbed, reducing runoff and erosion.”

d) Flooding. Decommissioning activities are designed to promote natural recovery of the road surface by restoring the natural hydrologic function (infiltration capacity) of the soil in the roadbed and reducing runoff and erosion (EA, p. 10). Therefore, flooding is not an issue.

e) Stormwater Drainage Systems. All project activities would occur on non-urbanized lands that lack engineered stormwater drainages systems. As a result, none would be affected.

f) Water Quality. The decommissioning project would not introduce pollutants into stormwater runoff or otherwise degrade water quality.

g - j) Flood Hazards. The decommissioning project would not place housing or other structures in a 100-year flood zone. The project routes are not located in an area which exposes people to flood risk such as a levee or dam failure.

j) Seiche, Tsunami, and Mudflow. The decommissioning project is not located near a large body of water that could inundate the project area with water from a seiche or tsunami or near hills that would result in a mudflow.

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

**Discussion:**

a) Established Community. The project has no components that would divide an established community. All decommissioning activities would take place on national forest land.

b) Land Use Plans and Policies. The project would not change the nature of any land use within the area or conflict with any land use plans. The purpose of the road decommissioning project is to remove nonsystem roads that are not needed for access or maintenance. According to the FONSI (p. 4), all actions included in the Camp Restoration Project, including grant funded road decommissioning, "are consistent with direction in the Tahoe National Forest Land and Resource Management Plan (1990) as amended by the Sierra Nevada Forest Plan Amendment Record of Decision (2004)."

c) Habitat Plans. The project area is not 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

No important mineral resources would be removed from the project area, nor would availability of any mineral resources be affected by work on the specific project routes.

### 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? | ☐ | ☐ | ☒ | ☐ |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

a) Violation of Noise Standards. Noise levels would increase during work on specific project routes due to the use of heavy equipment (bulldozer and excavator) to decompact and recontour road prisms, to remove loose fill in riparian areas, and to place large woody debris and boulders as barriers to motor vehicle use. 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 up to six months during the dry season (May through October) for a three year period (18 months total). Some roads to be decommissioned are located near rural residences, although most are located away from them. Because of the short duration of the heavy equipment work at any one location (1 to 5 days), no violations of noise standards are expected to occur.

b) Groundborne Vibration and Noise. Localized ground vibrations may occur during implementation of the project on the specific project routes 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 would last no more than 1 to 5 days at any one location.

c and d) Permanent and Temporary Noise Increase. The decommissioning work on each specific project route could take anywhere from one to five days. After that time, the heavy

equipment used to conduct the work would be removed and no other noise related to the project would be generated at the site.

e) Airport Noise. The nearest public use airport is the Brownsville Airport, a general aviation airport located more than 10 miles west of the project area. None of the specific project routes are located within the 60 dB CNEL zone of the airport and none involve a change in recreational or other human use of the area. Implementation of the project would not affect or result in exposure of people to excessive noise levels from an airport.

### 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)? | ☐ | ☐ | ☐ | ☒ |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The project is located in a national forest and would not induce population growth. The proposed project involves decommissioning 58 unneeded roads/routes totaling approximately nine miles. These activities do not provide services that support population growth.

There are some residences in the immediate vicinity of some project routes; however, there would be no displacement of housing that would require 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? | ☐ | ☐ | ☐ | ☒ |
| ii) Police protection? | ☐ | ☐ | ☐ | ☒ |
| iii) Schools? | ☐ | ☐ | ☐ | ☒ |
| iv) Parks? | ☐ | ☐ | ☐ | ☒ |
| v) Other public facilities? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The decommissioning project would not increase the need for fire or police protection services or create an adverse impact on these protection services.

The project would not affect the number of students served by local schools, nor bring in new residents requiring the construction of additional schools.

The project would not generate increased numbers of residents or visitors in the area using community parks. The project is not expected to increase visitor use within the national forest or OHV use of the existing OHV Trail System.

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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The project would not increase visitor use at the national forest such that new recreational facilities would be needed, nor would the decommissioning work cause motorized recreationists to intensify uses on other facilities. The routes to be decommissioned have been identified by the USFS as nonsystem roads and are not needed for access or maintenance. No neighborhood or regional parks are located in the vicinity of specific work sites.

The project would not include nor would it facilitate any new recreational facilities or activities. The decommissioning work 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? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☐ | ☒ |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ☒ |
| e) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The project would not increase vehicle trips to the project area, alter existing circulation systems, or conflict with any circulation or congestion management plans. The roads being decommissioned are no longer needed.

The project would not affect air traffic patterns or introduce road hazards. Emergency access to or from the project area would not be affected. No local traffic management plans are in effect in the project area. Modes of alternate transportation do not occur on the project routes, which are remotely located in the national forest.

### 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 (RWQCB)? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ☒ |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☐ | ☒ |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ☒ |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☐ | ☒ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ☒ |

**Discussion:**

The project involves decommissioning nine miles of unneeded roads. The project would not require or result in construction of new or expanded water or wastewater treatment facilities. No other uses or activities are proposed on the routes that would result in wastewater that would exceed RWQCB treatment requirements. In addition, visitor use numbers are not expected to change significantly from existing visitation.

The project would be designed to convey stormwater off of the decommissioned route segments in accordance with national forest standards and guidelines so as to prevent erosion and siltation of downstream water bodies.

No new water supplies or entitlements would be needed to complete the project. The project would not cause an increase in water use or require construction of new water infrastructure. 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? | ☐ | ☐ | ☒ | ☐ |
| 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.) | ☐ | ☐ | ☒ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ☒ | ☐ |

**Discussion:**

a) Degraded Environment. Work on specific project routes would employ Management Requirements contained in Table 2-4 of the EA (pp. 32-41) and applicable BMPs contained in the EA (pp. 41-46) during implementation to preserve the quality of the environment and to protect sensitive habitats and species. These actions, combined with the resource conservation measures, would prevent substantial degradation of the environment or loss of species below self- sustaining levels. No important examples of the major periods of California history or prehistory would be affected by project activities.

b) Cumulative Impacts. The project has no impacts related to aesthetics, agriculture/forestry, hazards/hazardous materials, land use planning, mineral resources, population/housing, public services, recreation, transportation, and utilities. Therefore, there are no cumulative impacts related to these environmental factors.

The project has less than significant impacts on air quality, biological resources, cultural resources, geology/soils, GHG emissions, hydrology/water quality, and noise. With the exception of GHG emissions, all project impacts are highly localized and do not contribute toward cumulative impacts. There are no other activities or proposed projects in the Tahoe National Forest that would contribute toward the site-specific project impacts.

Cumulative impacts related to climate change (GHG emissions) and air quality are not anticipated as the project activities would not expand recreational facilities or result in increased visitation at the Tahoe National Forest.

c) Effects on Human Beings. The project is the decommissioning of nine miles of unneeded routes within an established OHV trail system. The routes are being decommissioned to better

define public use areas, restore closed areas, and promote natural recovery of the road surface by restoring the natural hydrologic function (infiltration capacity) of the soil in the roadbed and reducing runoff and erosion 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 IS.

# Chapter 4 REFERENCES

California Air Resources Board (CARB). 2004. *Mountain Counties Air Basin.* Accessed Oct 8, 2014. http://www.arb.ca.gov/pm/pmmeasures/pmch05/mouc05.pdf

_____. 2007. Staff Report California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. Sacramento, CA. November 16, 2007. http://www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf2009.

_____. 2009. Climate Change Scoping Plan – A Framework for Change. Endorsed by ARB December 2008.Sacramento, CA. May 11, 2009. http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm

_____. 2011a. Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document. Released August 19, 2011. Sacramento, CA. Approved August 24, 2011. http://www.arb.ca.gov/cc/scopingplan/fed.htm

_____. 2011b. GHG Inventory Data. <http://arb.ca.gov/cc/inventory/data.data.htm

_____. 2014a. Area Designation Maps – State and National. Accessed Oct 17, 2014. http://www.arb.ca.gov/desig/adm/adm.htm

_____. 2014b. California Air Resources Board (CARB). May 2014. *First Update to the Climate Change Scoping Plan*.

California Department of Conservation, Division of Mines and Geology (CDC). 2000a. A General Location Guide for Ultramafic Rocks in California – Areas More Likely To Contain Naturally Occurring Asbestos. Sacramento, CA. August 2000. http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/index.aspx

_____. 2000b. Areas More Likely to Contain Natural Occurrences of Asbestos in Western El Dorado County, California. Sacramento, CA. August 2000. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-002.pdf

California Department of Fish and Wildlife. (CDFW) Biogeographic Branch. 2014. California Natural Diversity Database. Data from August 2014.Search included the Clipper Mills, Strawberry Valley, Goodyears Bar, Challenge, Camptonville, Pike, French Corral, Nevada City, and North Bloomfield 7.5 minute quads.

California Department of Transportation (Caltrans). 2015. Website section on “California Scenic Highway Mapping System. At: http://www.dot.ca.gov/hq/LandArch/scenic_highways/

California Geological Survey (CGS). 2012. Alquist-Priolo Earthquake Fault Zone Maps. Accessed September 2014. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

Delorme, Atlas and Gazetteer, 2011, California. Third Edition.

Feather River Air Quality Management District (FRAQMD). 2010. *Indirect Source Review.* Accessed Dec 4, 2014. http://www.fraqmd.org/CEQA/Update%202010/FINAL%206-7-10/FINAL%20version%20ISR%20Amendments.pdf

_____. 2011. *Revision to the 2009 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan: Removal of Control Measure IS-1, Construction Mitigation Rule*. Accessed Dec 4, 2014. http://www.fraqmd.org/Plans/2009%20O3%20SIP%20Revision/IS-1%20Proposed%20total%20action.pdf

_____. 2012. *Local and State Regulations Applicable to Fugitive Dust.* Accessed December 4, 2014. <http://www.fraqmd.org/CEQA/Local%20and%20state%20regulations%20applicable%20to%20fugitive%20dust.pdf>

National Oceanic and Atmospheric Administration (NOAA). 2010. "Mauna Loa $CO_2$ Monthly Mean Data." Trends in Atmospheric Carbon Dioxide. NOAA, Earth System Research Laboratory, Global Monitoring Division. Accessed March 17, 2014. http://www.esrl.noaa.gov/gmd/ccgg/trends/

Northern Sierra Air Quality Management District (NSAQMD). 2009. *Guidelines for Assessing and Mitigating Air Quality Impacts of Land Use Projects.* Accessed Oct 8, 2014. <http://www.mynevadacounty.com/nc/cda/planning/rincon/commentltrs/NSAQMD_Attachment-Land%20Use%20Guidelines.pdf>

_____. 2014a Rules and Regulations. Accessed Oct 8, 2014. <http://www.myairdistrict.com/index.php?Itemid=71>

_____. 2014b. Air Quality Attainment Status. Accessed Oct 8, 2014. http://myairdistrict.com/Air_Quality_Attainment_Status.pdf

_____. 2014c. Nevada County Ozone. Accessed Oct 8, 2014. http://www.myairdistrict.com/index.php?Itemid=61

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2014. *CEQA Guide – Guide to Air Quality Assessment in Sacramento County.* November 2014.

Slater, William and Krautkramer, Jesse. 2014. Camp Roads Decommissioning Cultural Resource Inventory Report R2015051700014, Tahoe National Forest. November 2014.

Tierney, Marilyn. 2013a. Biological Evaluation / Biological Assessment Birds, Mammals, Amphibians, Reptiles, Fish, Invertebrates, Camp Project, Yuba River Ranger District, Tahoe National Forest. February 14, 2013. District Wildlife Biologist.

_____. 2013b.Project Management Indicator Species Report, Camp Project, Yuba River Ranger District, Tahoe National Forest. March 18, 2013. District Wildlife Biologist.

United States Environmental Protection Agency (U.S. EPA). 1998. "Control of Emissions of Air Pollution From Nonroad Diesel Engines; Final Rule." Volume 63 *Federal Register,* October 23, 1998: 56967-57023.

_____. 2004. "Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel." Volume 69 *Federal Register,* June 29, 2004: 38958-39273.

_____. 2013. The Green Book Nonattainment Areas. California PM2.5 Nonattainment Areas (2006 Standard). Updated December 5, 2013. Accessed. February 12, 2014. http://www.epa.gov/oaqps001/greenbk/ca25b.html

U.S. Forest Service (USFS). 2006. Programmatic Agreement Among the USDA Forest Service, Pacific Southwest Region, USDA Forest Service, Intermountain Region's Humboldt-Toiyabe National Forest, California State Historic Preservation Officer, and Advisory Council on Historic Preservation Regarding the Process for Compliance with Section 106 of the National Historic Preservation Act for Designating Motor Vehicle Routes and Managing Motorized Recreation on the National Forests in California

_____. 2014a. "Naturally Occurring Asbestos". Pacific Southwest Region, Projects and Programs, Naturally Occurring Asbestos, Presence on National Forests, El Dorado National Forest. Web. Accessed January 14, 2014. http://www.fs.usda.gov/detail/r5/landmanagement/resourcemanagement/?cid=STELPRDB5363833

U.S. Forest Service, Tahoe National Forest (USFS TNF). 2013a. Environmental Assessment for the Camp Project. Tahoe National Forest, Yuba River Ranger District. March 2013.

_____. 2013b. Decision Notice and Finding of No Significant Impact for the Camp Project. Tahoe National Forest, Yuba River Ranger District. May 6, 2013.

_____. 2014a. "Tahoe National Forest Watchlist Plants and Plant Communities"

_____. 2014b. "Watchlist Plant/Plant Community Report Camp Project Yuba River Ranger District Tahoe National Forest," Prepared by: Kathy Van Zuuk, District Ecologist/Botanist, Forest Noxious Weed Coordinator, January 29, 2013

_____. 2014c. Project Description for Grants and Cooperative Agreements Program – 2013/2014, 6/18/2014, Application: Restoration – Camp.

Van Zuuk, Kathy. 2013. Biological Evaluation for Sensitive Plants and Fungi, Camp Project, Yuba River Ranger District, Tahoe National Forest. January 20, 2013. Forest Nonnative Invasive Plant Coordinator.

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# **Chapter 5** REPORT PREPARATION

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# APPENDIX A: AIR QUALITY MODELLING RESULTS

# Tahoe_Camp_Restoration_v4

**Statewide , Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| User Defined Recreational | 1.00 | User Defined Unit | 118.00 | 0.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 54 |
| **Climate Zone** | 12 | | | **Operational Year** | 2015 |
| **Utility Company** | Anaheim Public Utilities | | | | |
| **CO2 Intensity (lb/MWhr)** | 1543.28 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - BID override

Construction Phase - BID override

Grading - BID override

Off-road Equipment - BID override

Off-road Equipment - BID override

Trips and VMT - BID override

On-road Fugitive Dust - BID override

Construction Off-road Equipment Mitigation -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 120.00 | 131.00 |
| tblConstructionPhase | NumDays | 120.00 | 110.00 |
| tblConstructionPhase | PhaseEndDate | 5/2/2016 | 10/31/2016 |
| tblConstructionPhase | PhaseEndDate | 10/30/2015 | 10/31/2015 |
| tblConstructionPhase | PhaseStartDate | 11/1/2015 | 5/1/2016 |
| tblGrading | AcresOfGrading | 0.00 | 50.00 |
| tblGrading | AcresOfGrading | 0.00 | 68.00 |
| tblGrading | MaterialImported | 0.00 | 650.00 |
| tblGrading | MaterialImported | 0.00 | 950.00 |
| tblLandUse | LotAcreage | 0.00 | 118.00 |
| tblOffRoadEquipment | HorsePower | 162.00 | 97.00 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentType | Tractors/Loaders/Backhoes | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Prep Site 2015 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 50.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 50.00 |
| tblProjectCharacteristics | OperationalYear | 2014 | 2015 |
| tblTripsAndVMT | WorkerTripNumber | 25.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 8.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2015 | 0.0948 | 1.0613 | 0.8170 | 8.2000e-004 | 3.6705 | 0.0502 | 3.7207 | 0.6649 | 0.0461 | 0.7110 | 0.0000 | 77.6713 | 77.6713 | 0.0224 | 0.0000 | 78.1414 |
| 2016 | 0.1028 | 1.1063 | 0.8643 | 8.3000e-004 | 4.7702 | 0.0566 | 4.8268 | 1.0091 | 0.0521 | 1.0611 | 0.0000 | 77.5662 | 77.5662 | 0.0225 | 0.0000 | 78.0377 |
| **Total** | **0.1976** | **2.1676** | **1.6813** | **1.6500e-003** | **8.4408** | **0.1067** | **8.5475** | **1.6739** | **0.0982** | **1.7721** | **0.0000** | **155.2375** | **155.2375** | **0.0448** | **0.0000** | **156.1791** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2015 | 0.0948 | 1.0613 | 0.8170 | 8.2000e-004 | 3.2916 | 0.0502 | 3.3418 | 0.4630 | 0.0461 | 0.5092 | 0.0000 | 77.6712 | 77.6712 | 0.0224 | 0.0000 | 78.1413 |
| 2016 | 0.1028 | 1.1063 | 0.8643 | 8.3000e-004 | 4.0995 | 0.0566 | 4.1561 | 0.6492 | 0.0521 | 0.7012 | 0.0000 | 77.5661 | 77.5661 | 0.0225 | 0.0000 | 78.0376 |
| **Total** | **0.1976** | **2.1676** | **1.6813** | **1.6500e-003** | **7.3912** | **0.1067** | **7.4979** | **1.1122** | **0.0982** | **1.2104** | **0.0000** | **155.2373** | **155.2373** | **0.0448** | **0.0000** | **156.1789** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **12.43** | **0.00** | **12.28** | **33.56** | **0.00** | **31.70** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

## 2.2 Overall Operational

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Prep Site 2015 | Site Preparation | 6/1/2015 | 10/31/2015 | 5 | 110 | |
| 2 | Prep Site 2016 | Site Preparation | 5/1/2016 | 10/31/2016 | 5 | 131 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Prep Site 2015 | Excavators | 1 | 8.00 | 162 | 0.38 |
| Prep Site 2016 | Rubber Tired Dozers | 1 | 8.00 | 255 | 0.40 |
| Prep Site 2016 | Excavators | 1 | 8.00 | 97 | 0.37 |
| Prep Site 2015 | Rubber Tired Dozers | 1 | 8.00 | 255 | 0.40 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Prep Site 2015 | 10 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Prep Site 2016 | 7 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

## 3.2 Prep Site 2015 - 2015

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.6889 | 0.0000 | 0.6889 | 0.3670 | 0.0000 | 0.3670 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0929 | 1.0589 | 0.7929 | 7.8000e-004 | | 0.0501 | 0.0501 | | 0.0461 | 0.0461 | 0.0000 | 74.3182 | 74.3182 | 0.0222 | 0.0000 | 74.7841 |
| **Total** | **0.0929** | **1.0589** | **0.7929** | **7.8000e-004** | **0.6889** | **0.0501** | **0.7391** | **0.3670** | **0.0461** | **0.4131** | **0.0000** | **74.3182** | **74.3182** | **0.0222** | **0.0000** | **74.7841** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8600e-003 | 2.4300e-003 | 0.0242 | 4.0000e-005 | 2.9816 | 3.0000e-005 | 2.9816 | 0.2979 | 3.0000e-005 | 0.2979 | 0.0000 | 3.3531 | 3.3531 | 2.0000e-004 | 0.0000 | 3.3573 |
| **Total** | **1.8600e-003** | **2.4300e-003** | **0.0242** | **4.0000e-005** | **2.9816** | **3.0000e-005** | **2.9816** | **0.2979** | **3.0000e-005** | **0.2979** | **0.0000** | **3.3531** | **3.3531** | **2.0000e-004** | **0.0000** | **3.3573** |

## 3.2 Prep Site 2015 - 2015

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.3100 | 0.0000 | 0.3100 | 0.1651 | 0.0000 | 0.1651 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0929 | 1.0589 | 0.7929 | 7.8000e-004 | | 0.0501 | 0.0501 | | 0.0461 | 0.0461 | 0.0000 | 74.3181 | 74.3181 | 0.0222 | 0.0000 | 74.7840 |
| **Total** | **0.0929** | **1.0589** | **0.7929** | **7.8000e-004** | **0.3100** | **0.0501** | **0.3602** | **0.1651** | **0.0461** | **0.2113** | **0.0000** | **74.3181** | **74.3181** | **0.0222** | **0.0000** | **74.7840** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.8600e-003 | 2.4300e-003 | 0.0242 | 4.0000e-005 | 2.9816 | 3.0000e-005 | 2.9816 | 0.2979 | 3.0000e-005 | 0.2979 | 0.0000 | 3.3531 | 3.3531 | 2.0000e-004 | 0.0000 | 3.3573 |
| **Total** | **1.8600e-003** | **2.4300e-003** | **0.0242** | **4.0000e-005** | **2.9816** | **3.0000e-005** | **2.9816** | **0.2979** | **3.0000e-005** | **0.2979** | **0.0000** | **3.3531** | **3.3531** | **2.0000e-004** | **0.0000** | **3.3573** |

## 3.3 Prep Site 2016 - 2016

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.2194 | 0.0000 | 1.2194 | 0.6544 | 0.0000 | 0.6544 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1008 | 1.1037 | 0.8385 | 7.8000e-004 | | 0.0565 | 0.0565 | | 0.0520 | 0.0520 | 0.0000 | 73.7136 | 73.7136 | 0.0222 | 0.0000 | 74.1805 |
| **Total** | **0.1008** | **1.1037** | **0.8385** | **7.8000e-004** | **1.2194** | **0.0565** | **1.2759** | **0.6544** | **0.0520** | **0.7064** | **0.0000** | **73.7136** | **73.7136** | **0.0222** | **0.0000** | **74.1805** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.9800e-003 | 2.5900e-003 | 0.0257 | 5.0000e-005 | 3.5508 | 4.0000e-005 | 3.5508 | 0.3547 | 3.0000e-005 | 0.3548 | 0.0000 | 3.8526 | 3.8526 | 2.2000e-004 | 0.0000 | 3.8572 |
| **Total** | **1.9800e-003** | **2.5900e-003** | **0.0257** | **5.0000e-005** | **3.5508** | **4.0000e-005** | **3.5508** | **0.3547** | **3.0000e-005** | **0.3548** | **0.0000** | **3.8526** | **3.8526** | **2.2000e-004** | **0.0000** | **3.8572** |

### 3.3 Prep Site 2016 - 2016

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.5487 | 0.0000 | 0.5487 | 0.2945 | 0.0000 | 0.2945 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1008 | 1.1037 | 0.8385 | 7.8000e-004 | | 0.0565 | 0.0565 | | 0.0520 | 0.0520 | 0.0000 | 73.7135 | 73.7135 | 0.0222 | 0.0000 | 74.1804 |
| **Total** | **0.1008** | **1.1037** | **0.8385** | **7.8000e-004** | **0.5487** | **0.0565** | **0.6053** | **0.2945** | **0.0520** | **0.3465** | **0.0000** | **73.7135** | **73.7135** | **0.0222** | **0.0000** | **74.1804** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.9800e-003 | 2.5900e-003 | 0.0257 | 5.0000e-005 | 3.5508 | 4.0000e-005 | 3.5508 | 0.3547 | 3.0000e-005 | 0.3548 | 0.0000 | 3.8526 | 3.8526 | 2.2000e-004 | 0.0000 | 3.8572 |
| **Total** | **1.9800e-003** | **2.5900e-003** | **0.0257** | **5.0000e-005** | **3.5508** | **4.0000e-005** | **3.5508** | **0.3547** | **3.0000e-005** | **0.3548** | **0.0000** | **3.8526** | **3.8526** | **2.2000e-004** | **0.0000** | **3.8572** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| User Defined Recreational | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| User Defined Recreational | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

| LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.493208 | 0.063152 | 0.178742 | 0.145097 | 0.045642 | 0.006785 | 0.015236 | 0.038832 | 0.001875 | 0.002240 | 0.005955 | 0.000698 | 0.002538 |

### 4.4 Fleet Mix

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Unmitigated | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| **Total** | **0.0000** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0000** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| User Defined Recreational | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| User Defined Recreational | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Vegetation