Hot Springs Road Reconstruction Project

Alpine County, California

Initial Study/Mitigated Negative Declaration

Alpine County
50 Diamond Valley Road
Markleeville, CA 96120
Contact: Brian Peters, Community Development Director
(530) 694-1361
email: bpeters@alpinecountyca.gov

November 2018

Draft Mitigated Negative Declaration
County of Alpine
Hot Springs Road Reconstruction Project

INTRODUCTION

This document has been prepared to evaluate the Hot Springs Road Reconstruction Project (also referred to as "proposed Project" or "Project") for compliance under the California Environmental Quality Act (CEQA). The County of Alpine (County) is the lead agency responsible for complying with the provisions of CEQA.

PROJECT DESCRIPTION

The County is proposing to reconstruct Hot Springs Road from Laramie Street to the roadway's end at Grover Hot Springs State Park, west of Markleeville in Alpine County, California, near State Route 89. The purpose of the Project is to improve pavement conditions, construct paved shoulders and bike lanes, and increase safety for drivers and bicyclists.

FINDINGS

As lead agency for compliance with CEQA requirements, the County finds that the proposed Project would be implemented without causing a significant adverse impact on the environment, based on the analysis presented in this Initial Study/ Mitigated Negative Declaration (IS/MND). Mitigation measures for potential impacts associated with biological resources, cultural resources, and tribal cultural resources would be implemented as part of the proposed Project through adoption of a mitigation monitoring and reporting program.

DETERMINATION

On the basis of this evaluation, the County concludes:

- The proposed Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered species, or eliminate important examples of the major periods of California history or prehistory.
- The proposed Project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposed Project would not have impacts that are individually limited, but cumulatively considerable.

- The proposed Project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.
- No substantial evidence exists to demonstrate that the proposed Project would have a substantive negative effect on the environment.

This document has been prepared to provide the opportunity for interested agencies and the public to provide comment. Pending public review and approval by the County Board of Supervisors, this MND will be filed pursuant to CEQA Guidelines §15075. Written comments should be submitted to the Alpine County Community Development Department at 50 Diamond Valley Road, Markleeville CA 96120 by 5:00 p.m. on **December 17, 2018.**

11-5-2018

Signature
Brian Peters
Community Development Director

Date

Table of Contents

List of Figures

List of Tables

List of Appendices

Acronyms and Abbreviations

ADI	Area of Direct Impact
amsl	above mean sea level
APE	Area of Potential Effects
BLM	Bureau of Land Management
BMPs	Best Management Practices
BSA	Biological Study Area
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
Corps	U.S Army Corps of Engineers
County	Alpine County
CWA	Clean Water Act
dBA	a-weighted decibels
DBH	diameter at breast height
DOC	California Department of Conservation
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FD	federally delisted
FP	fully protected
FPT	federally proposed threatened
FSS	Forest Service sensitive
GBUAPCD	Great Basin Unified Air Pollution Control District
GHG	greenhouse gas
HUD	hydrologic unit code
ISA	Initial Site Assessment
IS/MND	Initial Study/Mitigated Negative Declaration
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
$MTCO_2e$/year	metric tons of carbon dioxide equivalent per year
NAHC	Native American Heritage Commission
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NRCS	National Resources Conservation Service

OHWM	ordinary high water mark
PM_{10}	particulate matter less than 10 microns in diameter
Project	Hot Springs Road Reconstruction Project
ROW	Right of Way
RWQCB	Regional Water Quality Control Board
SE	State endangered
SSC	Species of Special Concern
ST	State threatened
State Parks	California Department of Parks and Recreation
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEAT	Worker Environmental Awareness Training

1.0 Introduction

1.1 Project Overview

The County of Alpine, Community Development Department (County), is proposing to reconstruct Hot Springs Road and widen shoulders for Class 2 and 3 bicycle lanes, where feasible, from Laramie Street to the roadway's end at Grover Hot Springs State Park, west of Markleeville in Alpine County, California, near State Route 89. The Project is needed to improve traffic circulation and protect the safety of the travelling public along Hot Springs Road.

The proposed Project will be funded using local, state, and federal transportation funds. The County is acting as the CEQA lead agency. Because the Project will receive federal funding through the Local Assistance Program of the California Department of Transportation (Caltrans), under the aegis of the Federal Highways Administration, Caltrans is also completing National Environmental Policy Act compliance for the proposed Project.

1.2 Purpose of this Document

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to disclose environmental impacts that may result from the proposed Project. This IS/MND assesses the environmental effects of the proposed Project, as required by CEQA, and is in compliance with state CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000, et seq.), which requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

1.3 Public Review Process

This IS/MND is being circulated for a minimum 30-day public review period to all individuals who have requested a copy, local libraries, and appropriate resource agencies. A Notice of Intent (NOI) is also being distributed to all property owners of record identified by the County's Assessor's office as having property adjacent to the proposed Project. The NOI identifies where the document is available for public review and invites interested parties to provide written comments for incorporation into the final IS/MND.

1.4 County Approval Process

After comments are received from the public and reviewing agencies, the County Board of Supervisors must adopt the IS/MND and approve a mitigation monitoring and reporting program (MMRP) before it can approve the proposed Project.

1.5 Organization of the Initial Study and Mitigated Negative Declaration

This IS/MND is organized into the following chapters:

Chapter 1 – Project Overview and Background: provides summary information about the proposed Project, describes the public review process for the IS/MND, and includes the CEQA determination for the proposed Project.

Chapter 2 – Project Description: contains a detailed description of the proposed Project.

Chapter 3 – Environmental Checklist: provides an assessment of proposed Project impacts by resource topic. The Environmental Checklist form, from Appendix G of the State CEQA Guidelines, is used to make one of the following conclusions for impacts from the proposed Project:

- A conclusion of ***no impact*** is used when it is determined that the proposed Project would have no impact on the resource area under evaluation.
- A conclusion of ***less than significant impact*** is used when it is determined that the proposed Project's adverse impacts to a resource area would not exceed established thresholds of significance.
- A conclusion of ***less than significant impact with mitigation*** is used when it is determined that mitigation measures would be required to reduce the proposed Project's adverse impacts below established thresholds of significance.
- A conclusion of ***potentially significant impact*** is used when it is determined that the proposed Project's adverse impacts to a resource area potentially cannot be mitigated to a level that is less than significant.

Mitigation measures, if necessary, are noted following each impact discussion.

Chapter 4 – List of Preparers: identifies the individuals who contributed to the environmental document.

Chapter 5 – References Cited: identifies the information sources used in preparing this document.

1.6 Environmental Factors Potentially Affected

Impacts to the environmental factors below are evaluated using the checklist included in Chapter 3. The County determined that the environmental factors checked below would be less than significant with implementation of mitigation measures. It was determined that the unchecked factors would have a less-than-significant impact or no impact.

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

DETERMINATION: On the basis of this initial evaluation:

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

☒ I find that although the proposed Project COULD have a significant effect on the environment, there will not be a significant effect in this case because revisions in the proposed Project have been made by or agreed to by the proposed Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Brian Peters, Community Development Director

11-5-2018
Date

2.0 Project Description

The proposed Project would reconstruct Hot Springs Road and widen shoulders for bicycle lanes where feasible from Laramie Street to the roadway's end at Grover Hot Springs State Park, as described in detail below.

2.1 Project Location

The proposed Project is located west of Markleeville in Alpine County, California, near State Route 89 within a rural area of the Sierra Nevada mountains (Figure 1). Hot Springs Road is a two-lane, County-maintained roadway that extends for 3.2 miles west from the unincorporated community of Markleeville to its terminus at Grover Hot Springs State Park. The proposed Project is located in Markleeville, California, U.S. Geological Survey (USGS) 7.5 minute topographic quadrangle map, with an elevation that ranges from approximately 5,500 to 5,900 feet above mean sea level (amsl) (Figure 2).

2.2 Project Purpose

Hot Springs Road is routinely used by recreationists and residents to access Grover Hot Springs State Park, hiking trails, bike trails, Markleeville Village at Pleasant Valley Road, and the Shay Creek Summer Home Residential Tract near the Grover Hot Springs State Park. The roadway also serves as an important access route for fire and emergency response providers.

Hot Springs Road has a County Collector functional classification, an average of 490 daily vehicle trips (based on 1998 estimates), and an "A" Level of Service, based on typical summer conditions collected in July 2009 (Alpine County 2017). However, the existing two-lane roadway has 11-foot wide travel lanes with shoulders of variable widths and a poor (score of 26) pavement condition index, which is a numerical index between 0 and 100 used to indicate the condition of a specific section of road pavement.

The Project is needed to improve traffic circulation and protect the safety of the travelling public along Hot Springs Road. The purpose of the Project is to improve pavement conditions and to construct paved shoulders and bike lanes. The Project will increase safety for drivers and bicyclists, by providing drivers with a consistent roadway section and a wider area for recovery should they veer out of the travel lane, and providing bicyclists with wider paved shoulders. The Project will also improve road width for emergency responders and evacuating residents and visitors during emergency (e.g., wildfires).

2.3 Proposed Project

The Project will reconstruct Hot Springs Road, improve pavement conditions, and provide paved shoulders along the road's 11-foot wide travel lanes, including 5-foot width for Class 2 and 3 bicycle lanes, where possible. The reconstructed pavement is expected to have a life span of approximately 25 to 30 years. For the purposes of this IS/MND, the approximately 41-acre Area of Potential Effect (APE) (Figure 3) encompass all areas of potential direct and indirect Project effects, including all areas of road widening, temporary construction easements, and staging areas. Existing and proposed typical cross-sections of the roadway are shown in Figure 4.

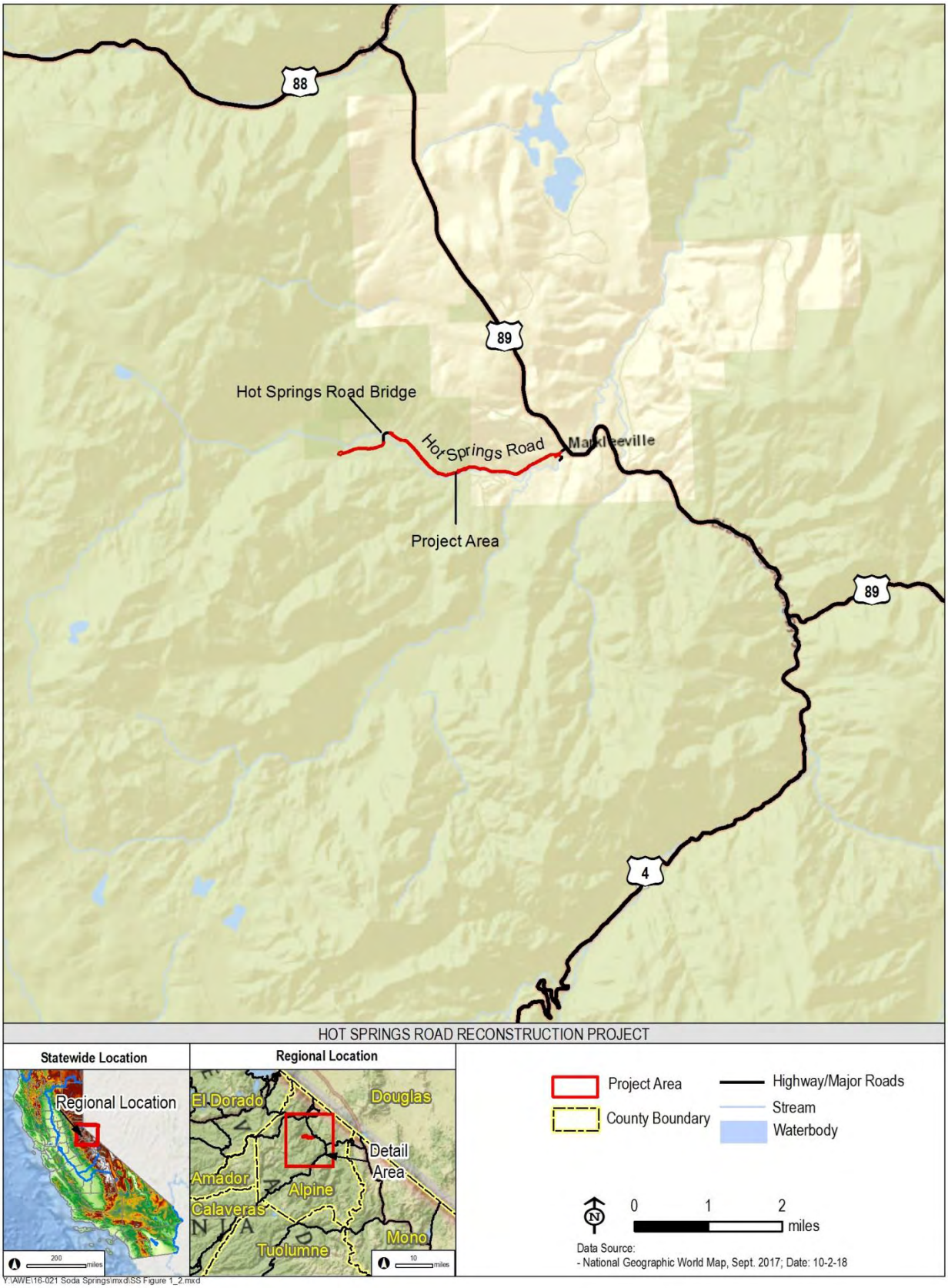


Figure 1. Project Vicinity

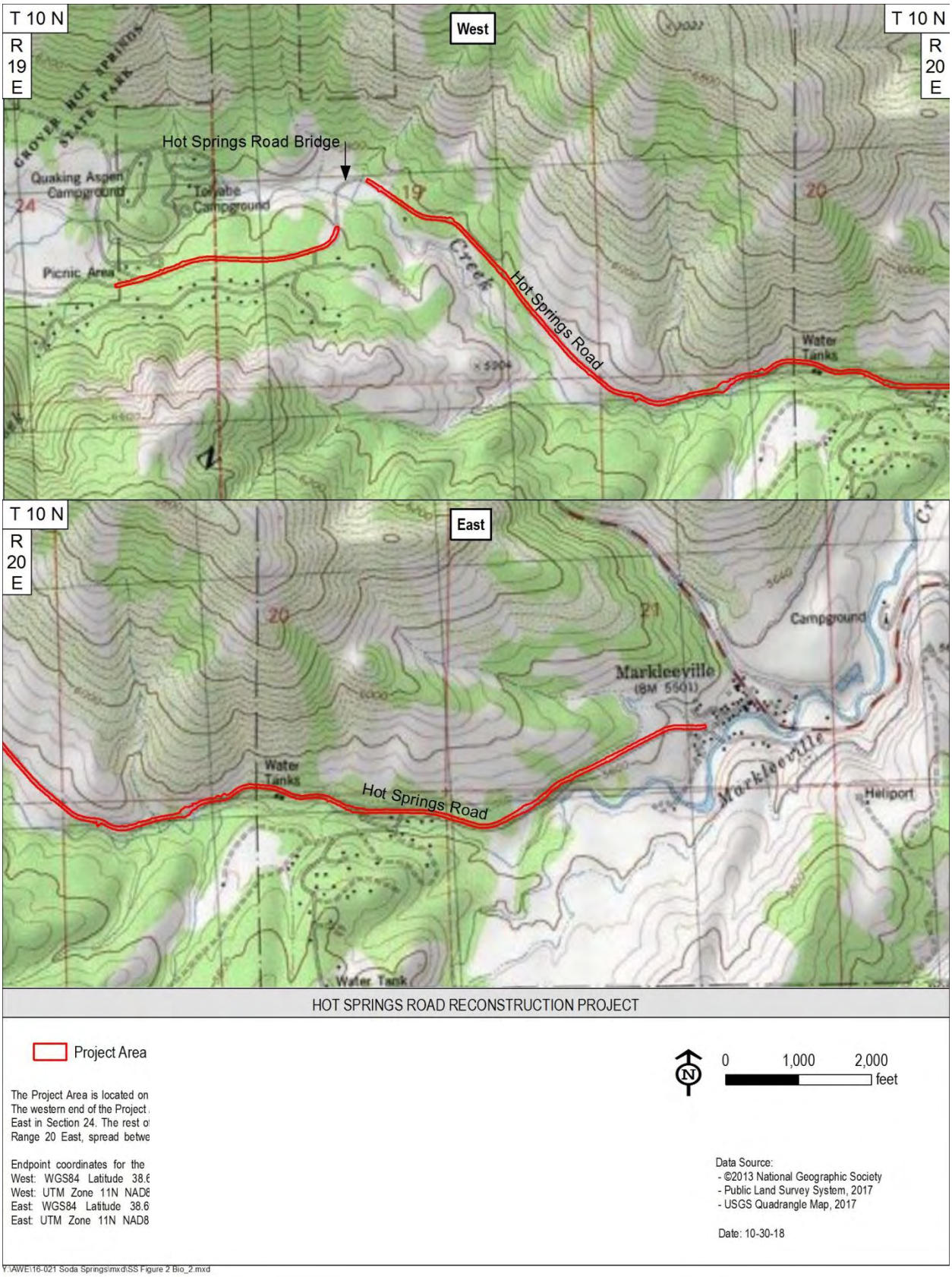


Figure 2. Project Location

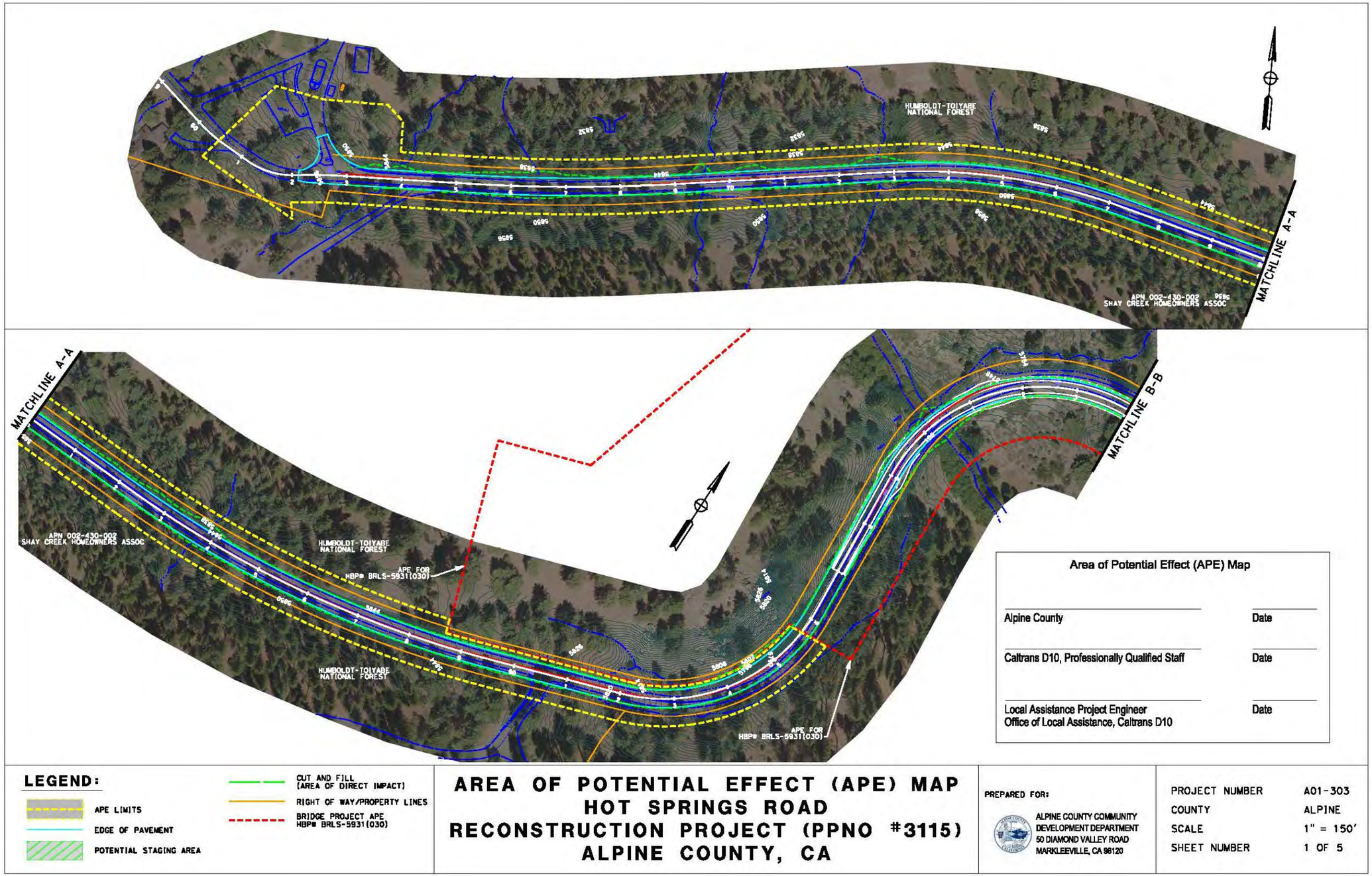
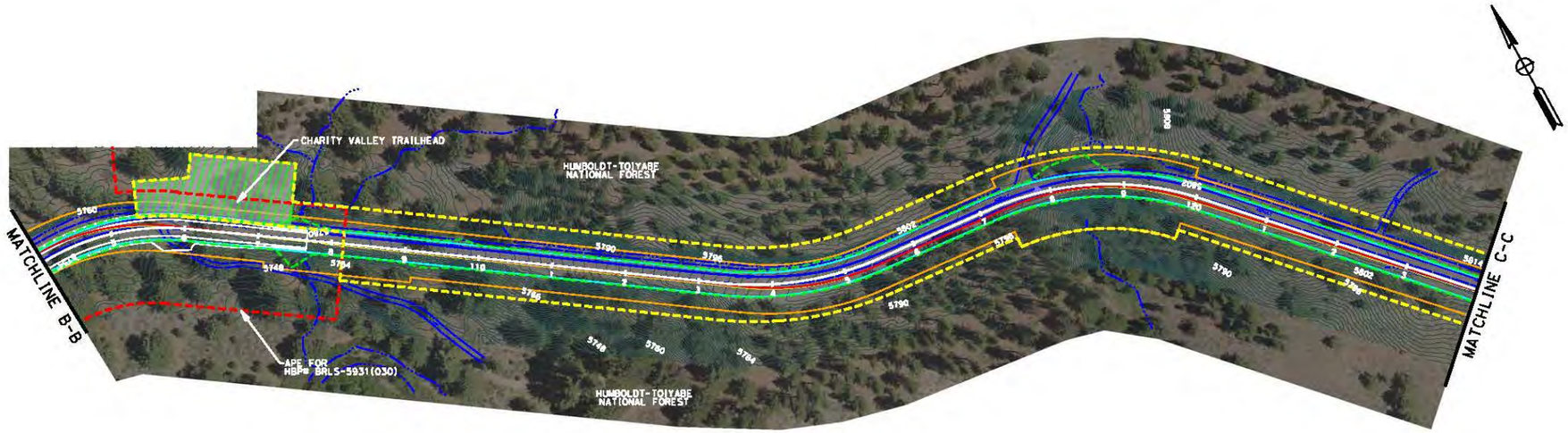
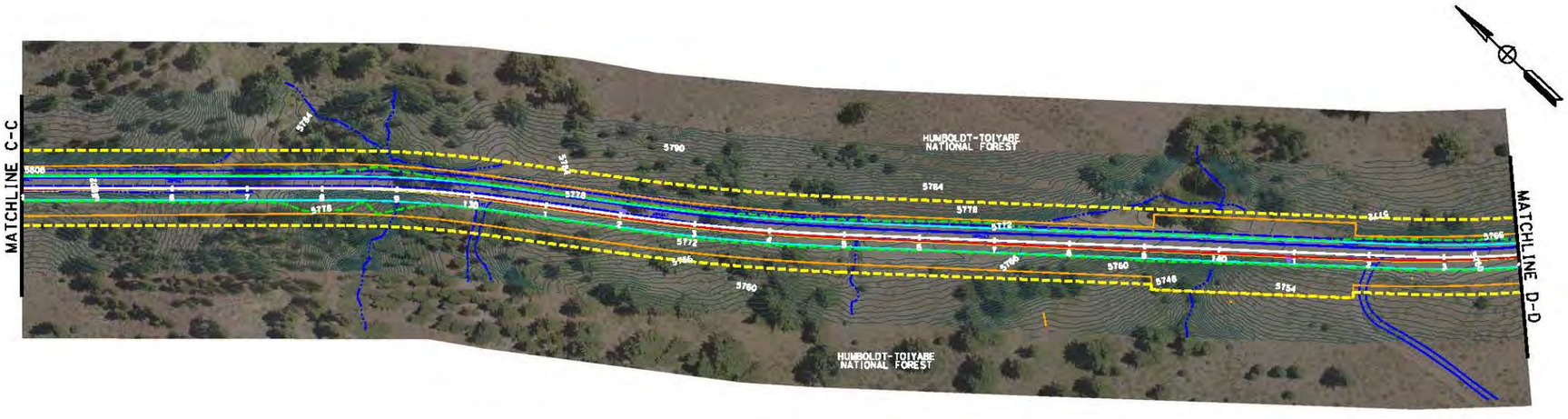


Figure 3. Proposed Project - Area of Potential Effect





LEGEND:

- APE LIMITS
- EDGE OF PAVEMENT
- POTENTIAL STAGING AREA
- CUT AND FILL (AREA OF DIRECT IMPACT)
- RIGHT OF WAY/PROPERTY LINES
- BRIDGE PROJECT APE HBP# BRLS-5931(030)

AREA OF POTENTIAL EFFECT (APE) MAP
HOT SPRINGS ROAD
RECONSTRUCTION PROJECT (PPNO #3115)
ALPINE COUNTY, CA

PREPARED FOR:

ALPINE COUNTY COMMUNITY DEVELOPMENT DEPARTMENT
50 DIAMOND VALLEY ROAD
MARKLEEVILLE, CA 96120

PROJECT NUMBER	A01-303
COUNTY	ALPINE
SCALE	1" = 150'
SHEET NUMBER	2 OF 5

Figure 3. Proposed Project - Area of Potential Effect (continued)

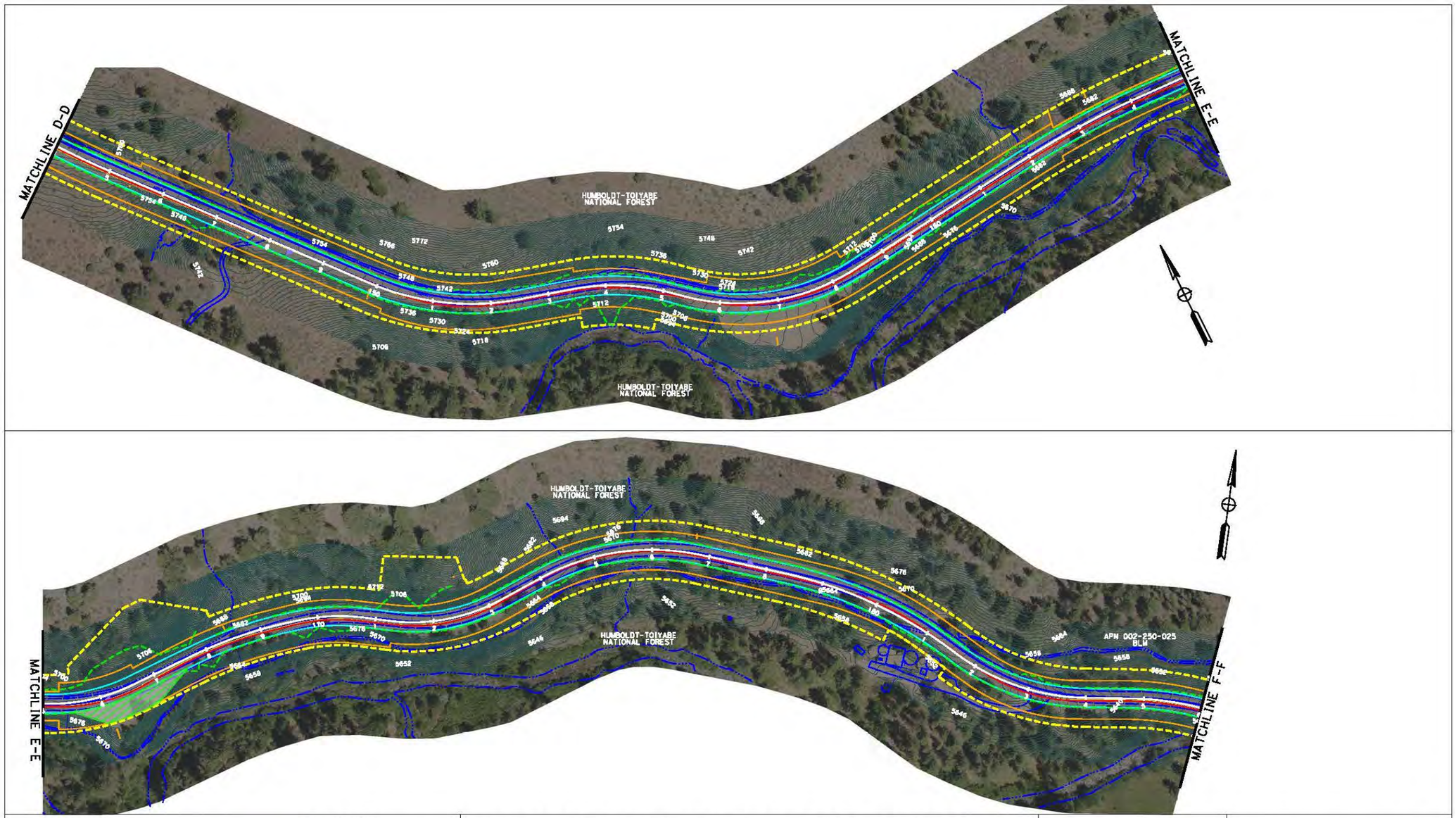


Figure 3. Proposed Project - Area of Potential Effect (continued)

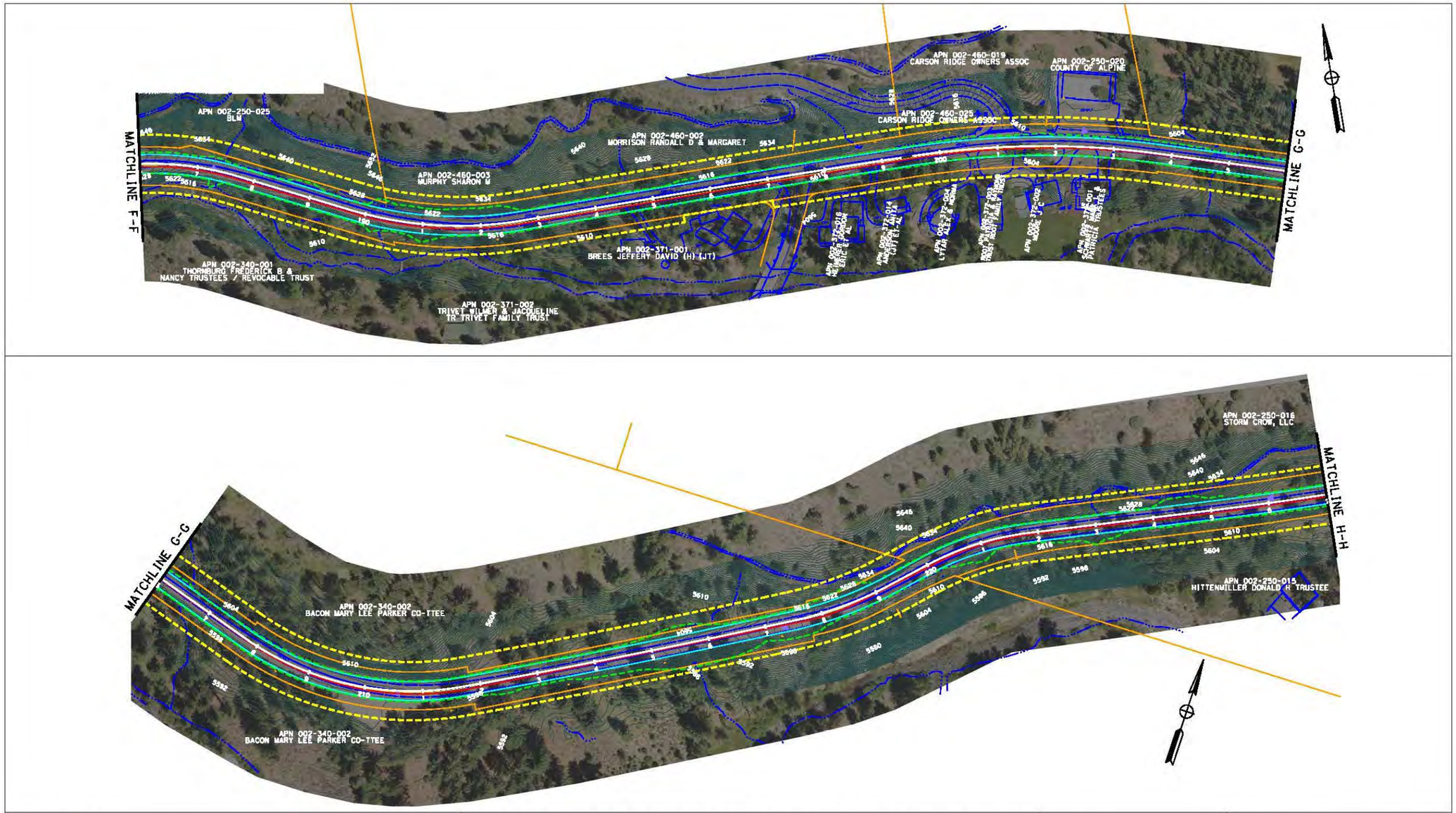


Figure 3. Proposed Project - Area of Potential Effect (continued)

LEGEND:

- APE LIMITS
- EDGE OF PAVEMENT
- POTENTIAL STAGING AREA
- CUT AND FILL (AREA OF DIRECT IMPACT)
- RIGHT OF WAY/PROPERTY LINES
- BRIDGE PROJECT APE HBP# BRLS-5931(030)

AREA OF POTENTIAL EFFECT (APE) MAP
HOT SPRINGS ROAD
RECONSTRUCTION PROJECT (PPNO #3115)
ALPINE COUNTY, CA

PREPARED FOR:
ALPINE COUNTY COMMUNITY
DEVELOPMENT DEPARTMENT
50 DIAMOND VALLEY ROAD
MARKLEEVILLE, CA 96120

PROJECT NUMBER	A01-303
COUNTY	ALPINE
SCALE	1" = 150'
SHEET NUMBER	5 OF 5

Figure 3. Proposed Project - Area of Potential Effect (continued)

Page intentionally blank

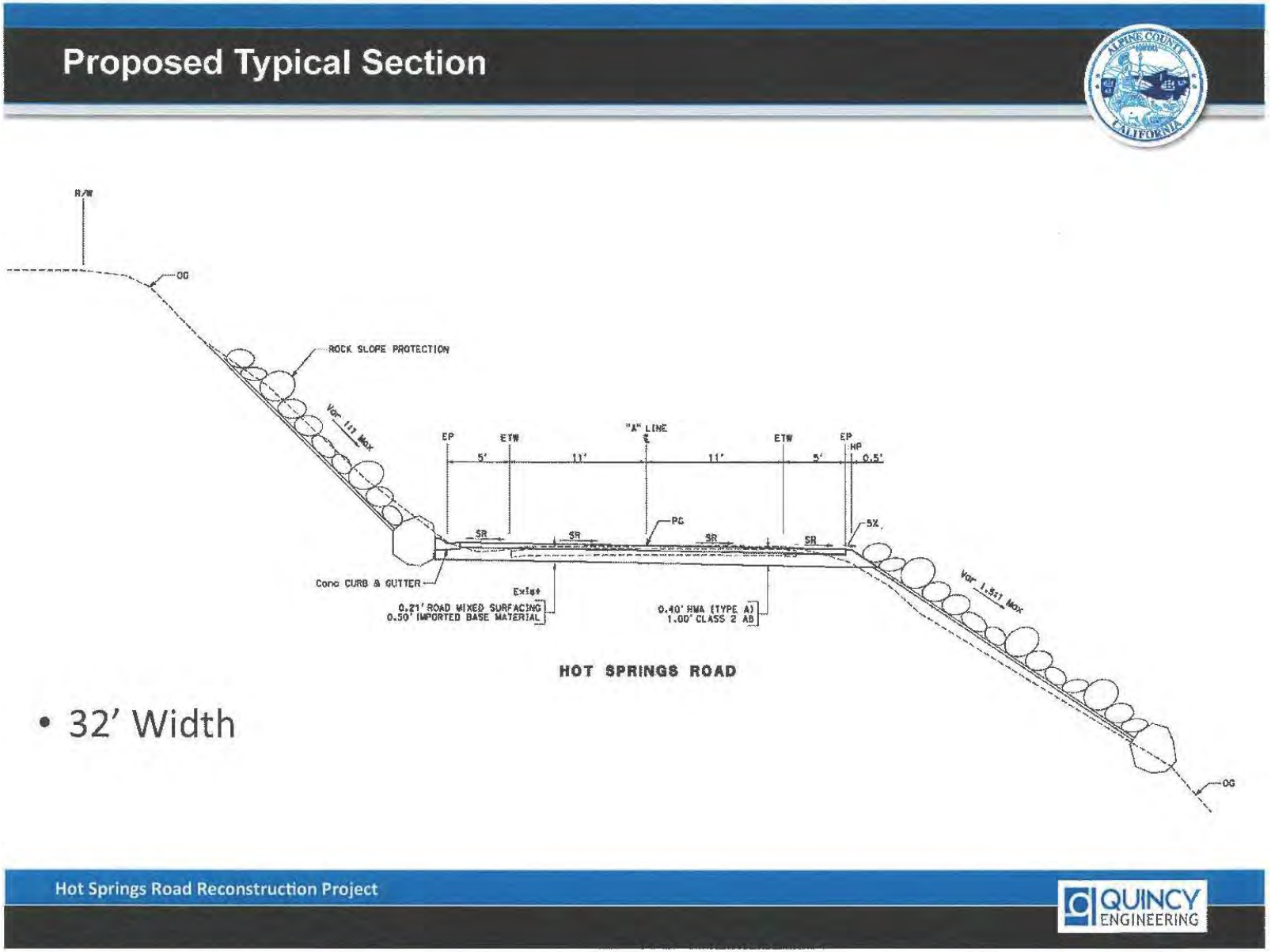


Figure 4. Proposed Project – Typical Road Section

2.3.1 Road Right-of-way

The Project is designed to keep road improvements within the existing right of way (ROW) to the maximum degree possible to protect existing infrastructure (e.g. the Town Ditch, Markleeville Water Company facilities and water line, and existing intersections and access points), and improve drainage. Permanent and/or temporary ROW easements will be required from the California Parks and Recreation Department (State Parks), Bureau of Land Management (BLM), and U.S. Forest Service (USFS) Humboldt-Toiyabe National Forest. Construction-related activities will require temporary construction easements for driveway conforms and staging areas along the roadway. No acquisition of private property is proposed.

2.3.2 Retaining Walls

Based on preliminary design, the Project will include the construction of approximately six standard Type 1 retaining walls, ranging in height from approximately 10 to 20 feet and ranging in length from approximately 100 to 350 feet (Figure 3). Wall face aesthetic treatments with color variations or rock façades will be considered to provide walls that visually fit within the character of the rural, mountainous terrain and natural setting. The County is considering flattening slopes and possibly reducing the number and size of retaining walls on BLM and USFS land. The design for the retaining walls is ongoing and will include discussions with federal land managers.

2.3.2 Drainage and Culvert Improvements

Culverts will be replaced and drainage facilities improved to accommodate the wider roadway. Roadside ditches may be relocated.

2.3.3 Utility Relocation

No known utilities would be relocated as part of the Project. Overhead power and phone lines operated by Liberty Utilities and Frontier Communication, respectively, are adjacent to Hot Springs Road; however, these utility poles and lines are not expected to be affected by the project. Markleeville Water Company has waterlines under a portion of Hot Springs Road and is responsible for that utility. If the Markleeville Water Company is awarded funding to replace the water lines under Hot Springs Road, the County will work with the company to ensure the water line replacement project can be completed prior to or concurrent with road construction. The Project will not result in the need for any additional utilities.

2.4 Project Construction, Schedule and Equipment

To address funding constraints, construction of the project will be phased, with Phase 1 reconstructing Hot Springs Road from Laramie Street to approximately Pleasant Valley Road (0.8 miles) and Phase 2 reconstructing the roadway from approximately Pleasant Valley Road to the entrance of Grover Hot Springs Park (2.4 miles).

Construction of Phase 1 of the Project would begin as early as May 2022. Construction will begin following the completion of the Hot Springs Bridge Replacement Project, described below.

Due to seasonal weather restrictions, construction activities would only take place during late spring, summer, and early fall months. The Project will not require road closures; however, it will require temporary lane closures within the construction zone. Traffic control during lane closure will ensure emergency/fire response and public access to local roadways are maintained within the construction area.

Excavators, dump trucks, and other equipment may be required to implement the Project (Table 1). Additional equipment may also be employed during the Project.

Table 1. Proposed Construction Equipment

Equipment	Construction Purpose
Cranes	Road reconstruction
Backhoe	Soil manipulation and drainage work
Grader	Earthwork construction
Bulldozer/loader	Earthwork construction, cleaning and grubbing
Dump truck	Fill material delivery/surplus removal
Excavator	Soil manipulation
Front–end loader	Dirt or gravel manipulation
Haul truck	Earthwork construction; clearing and grubbing
Scraper	Earthwork construction; clearing and grubbing
Truck with seed sprayer (hydroseeded)	Landscaping
Water truck	Earthwork construction; clearing and grubbing
Bobcat	Backfill distribution and compaction
Paving equipment	Road reconstruction
Concrete truck	Road reconstruction
Concrete breakers	Road reconstruction

Temporarily disturbed areas may be revegetated with native seeds using a truck with seed sprayer. The County would consult with the USFS, BLM, and/or State Parks botanist, as applicable, regarding recommendations for the native seed mix used to revegetate these areas.

2.5 Related Project: Hot Springs Road Bridge over Hot Springs Creek

Design and construction of the proposed Project will be coordinated with the Hot Springs Road Bridge (over Hot Springs Creek) Replacement Project, which is located approximately 2.8 miles west of Markleeville, within the Phase 2 section of the currently proposed Project. The bridge replacement is not part of the Project discussed herein, and has undergone separate environmental review. Therefore, the bridge replacement project area is excluded from the Project area. The purpose of the bridge replacement project is to replace a structurally deficient bridge that poses a safety hazard to vehicle travel along this portion of Hot Springs Road. The bridge replacement project will also include modification of the roadway approaches to reduce the curvature of the road and address roadway safety hazard concerns.

2.6 No-Build Alternative

The No-Build Alternative (No Project) maintains the poor pavement conditions and variable shoulder widths along Hot Springs Road. These conditions would continue to pose safety risks to the traveling public, which could eventually result in traffic incidents. Under the No-Build Alternative (No Project), the identified purpose and need to improve road conditions at these sites would not be addressed.

2.7 Permits and Approvals Needed

Upon completion of final design for the proposed Project, the following agencies will be contacted to obtain their permits or approvals.

- U.S. Army Corps of Engineers (Corps) – Clean Water Act (CWA) Section 404 Permit
- Regional Water Quality Control Board (RWQCB) – CWA Section 401 Water Quality Certification
- State Water Resources Control Board – CWA Section 402 National Pollution Discharge Elimination System (NPDES) permit
- California Department of Fish and Wildlife (CDFW) – Streambed Alteration Agreement
- USFS Letter of Consent
- State Parks Temporary Construction Easement Authorization, if work extends beyond the existing ROW onto State Parks property.

3.0 Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed Project. If it is determined that a particular impact to the environment could occur, the checklist must indicate whether the impact is Potentially Significant, Less Than Significant with Mitigation, or Less Than Significant. In many cases, background studies performed in connection with the projects indicate No Impacts, which do not require further discussion. Where there is a need for clarifying discussion, the discussion is included following the applicable checklist question. The words "significant" and "significance" used throughout the following checklist are related to CEQA impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

3.1 Aesthetics

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

Environmental Setting

Hot Springs Road is a two-lane, County-maintained roadway that extends for 3.2 miles west from the unincorporated community of Markleeville to its terminus at Grover Hot Springs State Park, with an elevation that ranges from approximately 5,500 to 5,900 feet amsl. Landforms along Hot Springs Road vary from steep to moderately flat, with terrain sloping generally north to south. Hot Springs Road is routinely used by recreationists and residents to access Grover Hot Springs State Park, hiking trails, bike trails, Markleeville Village at Pleasant Valley Road, and the Shay Creek Summer Home Residential Tract near the Grover Hot Springs State Park.

Hot Springs Road is not a designated scenic road. The closest officially designated State scenic highway in the Project area is Highway 89, which is located approximately 0.14 mile east of the Hot Springs Road Project area and through the Town of Markleeville (Figure 1) (Caltrans 2018).

The majority of parcels adjacent to Hot Springs Road are publicly owned Open Space and Recreational lands managed by the USFS Humboldt-Toiyabe National Forest, BLM, and State Parks, as well as privately owned parcels with residences and surrounding open space. Much of the proposed Project is located within Toiyabe National Forest and is subject to the Toiyabe National Forest Land and Resource Management Plan (USFS 1986). The Toiyabe National Forest Land and Resource Management Plan (USFS 1986) designates this area as having a visual quality objective of "partial retention"[1].

In many areas, views from the road corridor are limited by the undulating topography, curving roadway, and stands of coniferous forest adjacent to the road (North State Resources 2016a). Hot Springs Road does not offer expansive scenic views. The primary developed features include the road, rural residences, Alpine County Fire Station #92, private infrastructure (e.g., water tanks south of Hot Springs Road 0.3 mile west of Pleasant Valley Road), and overhead utility lines.

The primary viewer groups that would be affected by the proposed Project are recreationists and local residents traveling on Hot Springs Road. Viewsheds for the traveling public consist primarily of the road itself framed by adjacent coniferous trees. At the east end of the Project area, views of adjacent rural residences and irrigated pasture on flatter ground present broader landscape views. Appendix A includes representative photos of the Project area.

Impacts and Mitigation Measures

a, b and c. Would the project have a substantial adverse effect on a scenic vista; substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; or substantially degrade the existing visual character or the quality of the site and its surroundings?

The Project would repave and widen the existing roadway to provide paved shoulders and Class 2 or 3 bike lanes, when feasible. Widening the road would require removal of trees and shrubs along the road corridor, the creation of additional paved surface, and installation of retaining walls. Based on preliminary design, the Project will include the construction of approximately

[1] The Toiyabe National Forest Land and Resource Management Plan (USFS 1986) categorizes areas using five visual quality objectives for future desired visual conditions:

1. "Preservation" – where only ecological changes have occurred
2. "Retention" – management practices are not evident to the casual observer
3. "Partial Retention" – management practices are visually subordinate
4. "Modification" – management practices mya have dominated the landscape but activities should appear as natural occurrences in the fore- and middle-ground
5. "Maximum Modification" – management practices may have dominated the landscape but activities should appear as natural occurrences in the background

six standard Type 1 retaining walls, ranging in height from approximately 10 to 20 feet and ranging in length from approximately 100 to 350 feet (Figure 3).

The introduction of additional roadway pavement along the current road alignment would not be inconsistent with the setting of the Project area or the existing visual elements within the viewshed for local residents, motorists, and recreation users. Nevertheless, the construction of new retaining walls would add a new built visual element to the roadway corridor. The County, working with State Parks and USFS, is planning to use wall face aesthetic treatments with color variations or rock façades to provide walls that visually fit within the character of the rural, mountainous terrain and natural setting. Samples of these aesthetic treatments are provided in Appendix A.

Overall, the roadway improvements would not significantly affect a scenic vista, damage scenic resources, or substantially degrade the existing visual character or quality of the proposed Project area or its surroundings. Installation of retaining walls would result in a change to the visual character along the road; however, aesthetic treatments on the retaining walls would help these built elements blend into the existing natural landscape and minimize the visual intrusion of retaining walls along the road. This impact would be considered ***less than significant.***

Mitigation Measures: None required

d. Would the Project create a new substantial source of light or glare that would adversely affect day or nighttime views in the area?

The Project would not require or create new sources of substantial light or glare. No new lighting is proposed as part of the Hot Springs Road improvements. The Project would have a ***less than significant*** on light or glare.

Mitigation Measures: None required

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact

2. Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and site Assessment Model prepared by the California Department of Conservation (DOC) 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 Range Assessment Project and Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
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 (FMMP) of the California Resources Agency, to non-agricultural uses?	☐	☐	☐	☒
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 zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The proposed Project is located in Alpine County, along Hot Springs Road, from the unincorporated community of Markleeville to Grover Hot Springs State Park. None of the parcels in the Project area or surrounding vicinity are zoned for agriculture. See the Land Use and Planning Section for a full description of land use and zoning policies in the Project Area.

The proposed Project includes parcels adjacent to Hot Springs Road, including parcels managed by the USFS, BLM, and State Parks, as well as privately owned parcels. The Project area is designated by the County as Open Space and Residential. The Open Space land use designation is intended to protect and promote wise use of the County's natural resources (Alpine County 2017).

Impacts and Mitigation Measures

a, b. Would the project 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 (FMMP) of the California Resources Agency, to non-agricultural uses; or conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed Project is located within Alpine County, with a portion of the Project in the unincorporated community of Markleeville. Some parcels in the Project area and surrounding vicinity are zoned for agriculture but are currently not being used for agricultural production; the only agricultural use is forest stands. See the Land Use and Planning Section for a full description of land use and zoning policies in the Project area. None of these parcels are under a Williamson Act Contract. Alpine County is not included in the area mapped pursuant to the California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program. Therefore, the Project would not conflict with any existing zoning for agricultural use or a Williamson Act contract. There will be ***no impact***.

Mitigation Measures: None required.

c. Would the project Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The proposed Project includes areas zoned for Agriculture and Timber Preserve. The land adjacent to Hot Springs Road is in the Carson Ranger District of Toiyabe National Forest, with one parcel along Hot Springs Road managed by the BLM. The western terminus of the Project borders Grover Hot Springs State Park. The Project will include widening of Hot Springs Road and the development of bicycle lanes, which may require the removal of some vegetation, including trees, but will not significantly alter the landscape, conflict with existing zoning regulations or cause rezoning of forest land or timberland. Therefore, there will be ***no impact***.

Mitigation Measures: None required.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use;

The proposed Project includes areas zoned for Agriculture and Timber Preserve, including parcels adjacent to Hot Springs Road designated as publicly owned parcels managed by the USFS Humboldt-Toiyabe National Forest, BLM, and State Parks, as well as privately owned parcels. These areas are characterized by forest land and used primarily for recreation. During road widening to construct bike lanes, a narrow strip of forest land will be converted to non-forest land. A total of approximately 3 acres of forest land would be converted to non-forest land, comprised of several discrete, small roadside areas where trees are located within or adjacent to the ROW. Although some roadside trees would be removed to accommodate road widening, this conversion would have a limited localize permanent impact and would not affect current values and benefits of the surrounding forested areas, which include 368,600 square miles in the Carson Ranger District of the Toiyabe National Forest, plus additional forest land in the Stanislaus National Forest, Eldorado National Forest, and Lake Tahoe Basin Management Unit. Therefore, the effects would be ***less-than-significant.***

Mitigation Measures: None required.

e. Would the project 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?

Although the proposed Project includes areas zoned for Agriculture and Timber Preserve, they are not currently being used for agricultural production. The Project does not increase vehicle capacity or otherwise remove an existing barrier to development so it is not growth inducing and would not have indirect impacts that would result in conversion of farmland or forest land. There will be ***no impact.***

3.3 Air Quality

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
3. Air Quality				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that 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

The Project area is located within the Great Basin Unified Air Pollution Control District (GBUAPCD). The Project area is currently designated nonattainment for State ambient air quality standards for particulate matter (PM_{10}), and is designated attainment or unclassified for all other state and federal standards (California Air Resource Board 2018).

Existing land use in the Project area consist of Open Space and Residential. Nearby sensitive receptors consist of residence along Hot Springs Road and in the unincorporated community of Markleeville.

Impacts and Mitigation Measures

a, b, c. Would the project conflict with or obstruct implementation of the applicable air quality plan; violate any air quality standard or contribute substantially to an existing or projected air quality violation; or 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 that exceed quantitative thresholds for ozone precursors)?

The proposed Project would not conflict with an air quality plan as there are no applicable air quality plans in Alpine County. However, the GBUAPCD established District Rule 401 to reduce fugitive dust by ground disturbance activities and District Rule 404-A to establish limits to the amount of particulate matter discharge by pound per hour (North State Resources 2016b) (GBUAPCD 2018).

The Project would not alter long-term air quality emissions and may improve local air quality by providing pedestrian and bicyclist-friendly conditions on Hot Springs Road, though these improvements would be minor.

Construction activities would result in short-term increases in emissions from the use of heavy machinery, soil disturbance, materials used in construction and construction traffic. Emissions would consist of fugitive dust, mainly from ground-disturbance, as well as reactive organic compounds and nitrogen oxides emissions from equipment operations and vehicle use. Emissions would be short-term and are expected to remain localized and dissipate within the immediate vicinity. Additionally, these emissions would be minimized through the implementation of fugitive dust and emission control measures as required through the proposed Project's conformity to Caltrans Standard Specification Sections 14-9.02 "Air Pollution Control" and 14-9.03 "Dust Control," as well as the GBUAPCD rules and regulations (GBUAPCD 2018). The Project will have ***less-than significant impacts*** on Air Quality.

Mitigation Measures: None required.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

There will be few sensitive receptors nearby the proposed Project during construction. The western portion of Hot Springs Road in the Project area fronts rural residences, which are sensitive receptors. During construction, short-term increases in dust, emissions, and odors from equipment operations, grading, and paving could expose residence to short-term emissions. These nuisance emissions would be temporary and limited to the immediate area around construction activities. Although construction may take 2 construction seasons to complete, construction activities at any one location will not last for more than approximately 2 to 3 weeks, and the Project will conform to Caltrans Standard Specifications and GBUAPCD rules for

control of fugitive dust and emission control measures. Therefore, the Project effects will be ***less-than significant***.

Mitigation Measures: None required.

e. Would the project create objectionable odors affecting a substantial number of people?

Minor sources of odors would be present during construction from diesel engines and asphalt paving, which may be considered offensive to some individuals. However, because odors would be temporary, intermittent throughout the workday and would disperse rapidly with distance from the source, construction-generated odors would not result in frequent objectionable odorous emissions. These effects would be ***less than significant***.

Mitigation Measures: None required.

3.4 Biological Resources

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
4. Biological Resources				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the DFG or USFWS?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the DFG or USFWS?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal 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 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?	☐	☐	☐	☒

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

The proposed Project is located in a rural area of the Sierra Nevada mountains near the unincorporated community of Markleeville in Alpine County. Elevations range from approximately 5,500 to 5,900 feet amsl. The region has warm, mostly dry summers and cold, snowy winters. The proposed Project area primarily consists of paved roadway, disturbed road ROW, road-side slopes varying from steep to relatively flat, private yards/houses, and surrounding undeveloped lands. Parcels adjacent to the road ROW include publically owned parcels managed by the USFS Humboldt-Toiyabe National Forest, BLM, and State Parks, as well as privately owned parcels.

The boundary of the proposed Project area encompasses a total of approximately 19 acres and represents the maximum footprint for the Project, including areas of potential direct permanent and temporary impacts and staging areas. The Biological Study Area (BSA) encompasses a total of approximately 456 acres, which includes the proposed Project area plus a 500-foot buffer and is considered the maximum extent to which indirect permanent and temporary impacts to biological resources could occur. Biological field surveys completed on October 4 and 5, 2017 included habitat mapping and an aquatic resources delineation study to determine potential waters of the U.S. under the jurisdiction of the Corps pursuant to Section 404 of the CWA. Additionally, botanical surveys were completed on July 1 and 2, 2018. A Biological Resources Evaluation prepared for the proposed Project (Appendix B) describes existing conditions in the BSA and provides a special-status species assessment.

The BSA supports 15 community types, comprised of upland types, wetland types, and other waters of the U.S. (Table 2). Descriptions of these natural communities and figures showing their location in the BSA are provided in Appendix B.

Table 2. Natural Communities in the BSA and Project area

Natural Community	Acres within the BSA	Acres within the Project area
Upland Communities		
Developed	33.166	11.38
Irrigated Pasture	6.005	0.131
Great Basin Mixed Scrub	68.148	1.045
Jeffery Pine Forest	317.135	5.736
Montane Riparian Scrub	0.679	0

Natural Community	Acres within the BSA	Acres within the Project area
Montane Meadow (dry)	3.706	0
Upland Ditch	0.599	0.515
Wetland Communities		
Seasonal Wetland	0.003	0
Montane Riparian Wetland	10.371	0.031
Seep-spring	0.697	0.216
Other Waters of the U.S.		
Perennial Stream	11.314	0
Intermittent Stream	0.801	0
Intermittent Drainage (Town Ditch)	0.885	0.017
Ephemeral Stream	2.076	0.137
Wetland Ditch	0.186	0.114
Total	**455.771**	19.322

Impacts and Mitigation Measures

a. Will the project 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 CDFW or USFWS?

As described in Appendix B, 36 special-status plant species were initially identified as potentially occurring in the Project area. The listing status, preferred habitat, and potential for occurrence for each of these species are provided in Appendix B. Based on the analysis of elevational ranges, geographic ranges, and suitable habitat present within the Project area, it was determined that 22 of these plant species would be unlikely to occur. Potential habitat is present for 14 special-status plant species listed in Appendix B. No special-status plants were observed during botanical surveys completed on July 1-2 2018, which were conducted during the appropriate bloom period for the 14 potentially occurring special-status plant species. Therefore, the proposed Project would not affect any special-status plant species.

Based on a review of existing information including a search of the California Natural Diversity Database, U.S. Fish and Wildife Serivce (USFWS) species lists, USFS Region 4 Threatened, Endangered and Sensitive Species for the Toiyabe National Forest, and species distribution and habitat requirements data, a total of 35 special-status wildlife species were initially identified during the pre-field review as having the potential to occur within the vicinity of the proposed Project. The listing status, preferred habitat, and potential for occurrence for each of these species are listed in Appendix B. Of the 35 special-status wildlife species listed in Appendix B, 10 species would not occur in the BSA or have the potential to be affected by Project construction because the BSA lacks suitable habitat for the species and/or the BSA is outside the species' known range. These remaining 25 species have potential to occur within the BSA:

- Western bumble bee (*Bombus occidentalis*; Forest Service Sensitive [FSS])
- Northern goshawk (*Accipiter gentilis*; FSS, Species of Special Concern [SSC])
- Long-eared owl (*Asio otus;* SCC)
- Greater sage-grouse (*Centrocercus urphasianus*; FSS, SSC)
- Vaux's swift (*Chaetura vauxi;* SCC)
- Willow flycatcher (*Empidonax traillii*; FSS, State Endangered [SE])
- Bald eagle (*Haliaeetus leucocephalus*, Federally Delisted [FD], FSS, SE, Fully Protected [FP])
- Mountain quail (*Oreortyx pictus*; FSS)
- White-headed woodpecker (*Picoides albolarvatus*; FSS)
- Purple martin (*Progne subis;* SSC)
- Flammulated owl (*Psiloscops flammeolus*; FSS)
- Yellow warbler (*Setophaga petechia*; SSC)
- Great grey owl (*Strix nebulosa;* FSS; SE)
- Pallid bat (*Antrozous pallidus*; SCC)
- Sierra Nevada mountain beaver (*Aplodontia rufa californica*; SSC)
- Ringtail (*Bassariscus astutas*, FP)
- Pygmy rabbit (*Brachylagus idahoensis;* FSS, SSC)
- Townsend's big-eared bat (*Corynorhinus townsendii;* FSS, SSC)
- Spotted bat (*Euderma maculatum*; FSS, SSC)
- California wolverine (*Gulo gulo*, Federally Proposed Threatened [FPT], FSS, State Threatened [ST], FP)
- Western red bat (*Lasiurus blossevilii*; SCC)
- Western white-tailed jackrabbit (*Lepus townsendii townsendii*; SSC)
- Fisher (*Pekania pennanti*, FPT, FSS, SCT, SSC)
- American badger (*Taxidea taxus*, SSC)
- Sierra Nevada red fox (*Vulpes vulpes necator*, Federal Candidate, FSS, ST)

Habitat for migratory birds and nesting raptors is also present in the BSA. A discussion of potential impacts on habitats and specia1-status species is provided below.

Potential Impacts to Western Bumble Bee

Western bumble bees (FSS) forage on large patches of flowering vegetation and form annual colonies underground, typically in abandoned rodent nests located from 6 to 18 inches below the surface. Ground disturbance and vegetation removal for road reconstruction could directly affect bumble bees by destroying a hive/nest or hibernating queens underground, if present. Construction activities could indirectly affect the western bumble bee through the removal of or temporary disturbance to plants the species uses for foraging. The project will result in a negligible loss of potential foraging and nesting habitat in areas where flowering vegetation is removed. Direct impacts to western bumble bee resulting from ground disturbance, equipment use, and other proposed Project activities, as well as indirect effects to western bumble bee resulting from impacts to vegetation, would be avoided through implementation of Mitigation Measures BIO-1 through BIO-5. All biological resources mitigation measures are described at the end of this impact discussion. Impacts to western bumble bee would be ***less than significant with implementation of mitigation***.

Potential Impacts to Special-status and Migratory Birds

The proposed Project area represents potential nesting and foraging habitat for a number of FSS and/or SCC bird species including northern goshawk, long-eared owl, greater sage-grouse, Vaux's swift, mountain quail, white-headed woodpecker, purple martin, flammulated owl, and yellow warbler. Additionally, state-listed endangered willow flycatcher (FSS and SE), bald eagle (FSS, FD, SE, and FP), and great grey owl (FSS and SE) could occur. Other migratory birds and raptors could also nest in trees within or in the vicinity of the proposed Project. The occupied nests and eggs of these birds are protected by federal and state laws, including the Migratory Bird Treaty Act and California Fish and Game Code (CFGC) Section 3503.5.

The majority of construction activities would occur in previously disturbed areas along the existing road and shoulders. However, some vegetation and tree removal may be required along the roadside, which could result in the direct removal of an active nest, if present. Noise associated with construction activities involving heavy equipment that occurs during the breeding season (generally between March 1 and August 31) could disturb nesting birds if an active nest is located near these activities. This could result in the loss of nestlings or nest abandonment.

Vegetation removal and soil disturbance could result in the alteration of a small area of nesting, roosting, and/or foraging habitat located along the edges of the roadway. Following the Project, the proposed Project area will continue to function as it does currently for avian species. Therefore, the proposed Project would not result in reduced habitat quality for birds and raptors. Potential direct impacts to nesting birds would be avoided through implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-5, and BIO-6. Therefore, impacts to the special-status bird species would be ***less than significant with implementation of mitigation***.

Potential Impacts to Special-status Mammals

No special-status mammals or potential mammal burrows were observed during the biological surveys. However, Sierra Nevada mountain beaver (SSC), ringtail (FP), pygmy rabbit (FSS,

SCC), California wolverine (FPT, FSS, ST, and FP), western white-tailed jackrabbit (SSC), fisher (FPT, FSS, SCT, and SSC), American badger (SSC), and Sierra Nevada red fox (FC, FSS, ST) could potentially occur in the BSA.

Habitat for Sierra Nevada mountain beaver and American badger is present in the BSA in areas with friable soil and an abundant supply of small mammal prey, especially within riparian habitats. Riparian habitats in the BSA also represent potential habitat for ringtail. Jeffery Pine Forest habitat in the BSA has potential to support the California wolverine and the entire BSA is within their suspected occupied range. This species is very rare and reclusive and is unlikely to be present in the Project area along a busy roadway. Although unlikely, it is possible that the California wolverine could travel through the BSA, especially during the winter, when human activity in the area is reduced.

Jeffery Pine Forest, Great Basin Mixed Scrub, and Montane Meadow habitats in the BSA could support Sierra Nevada red fox and western white-tailed rabbit. Jeffery Pine Forest habitat could support fisher. Most scrub and forested areas in the BSA had a relatively open understory. However, more dense stands of brush in the Jeffery Pine Forest and Great Basin Mixed Scrub in the BSA represent potential habitat for pygmy rabbit. Although special-status mammals could potentially den in the BSA where species-specific appropriate habitat is present, they are considered less likely to den within the Project area and are more likely to occur in appropriate habitat further from the road and human activities.

Soil disturbance and removal of vegetation within the Project area could directly affect special-status mammals, if present. Additionally, noise associated with construction activities involving heavy equipment operation could disturb denning mammals if an active den is located near these activities. Vegetation removal and soil disturbance will occur along the roadsides where mammals are less likely to den. Therefore, no alteration of potential denning habitat for mammals is expected. Potential direct impacts to denning mammals would be avoided through implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-5, and BIO-7. Therefore, impacts to the special-status mammal species would be ***less than significant with implementation of mitigation***.

Potential Impacts to Special-status Bats

Pallid bat (SCC), spotted bat (FSS, SCC), Townsend's western big-eared bat (FSS, SCC), and western red bat (SCC) could potentially occur in the BSA. Within the BSA, potential roosting habitat for pallid bat, spotted bat, and Townsend's western big-eared bat occurs within rocky outcroppings and buildings. Potential roosting habitat for western red bats occurs in trees in Jeffery Pine Forest and riparian habitats. Bats could forage in open areas within most habitat types in the BSA.

There are no rocky outcroppings along the roadway in the Project area that represent potential roosting habitat and no buildings would be disturbed as part of the Project. Therefore, no direct impacts to roosting pallid bat, spotted bat, and Townsend's western big-eared bat colonies are expected. Tree removal along the road could directly affect roosting western red bats, if present. Noise associated with construction activities involving heavy equipment could disturb roosting bats if a roosting colony is located near these activities. Construction activities are not expected

to disturb foraging bats, as Project activities would not be conducted during dusk or dark when bats would be actively foraging. Vegetation removal could result in a negligible alteration of habitat for bats. There will be no impacts to rocky outcrops in the BSA and following the Project, the BSA will continue to function as it does currently for bats. Therefore, the Project would not result in reduced habitat quality for special-status bats. Potential direct impacts to bats would be avoided through implementation of Mitigation Measures BIO-1, BIO-2, BIO-5, and BIO-8. Therefore, impacts to the special-status mammal species would be ***less than significant with implementation of mitigation***.

Mitigation Measures:

Mitigation Measure BIO-1*: *Conduct Worker Environmental Awareness Training (WEAT)

Before any work occurs in the proposed Project area, including grading and equipment staging, all construction personnel shall participate in a worker environmental awareness training (WEAT) regarding special-status species and sensitive habitats present in the proposed Project area. If new construction personnel are added to the proposed Project, they must receive the mandatory training before starting work. As part of the training, an environmental awareness handout will be provided to all personnel that describes and illustrates sensitive resources (i.e., waters of the U.S. and State, riparian habitat, special-status species and habitat, nesting birds/raptors) to be avoided during Project construction and lists applicable permit conditions identified by state and federal agencies to protect these resources.

Mitigation Measure BIO-2*: *Install Temporary Fencing around Environmentally Sensitive Habitat

Before any ground-disturbing activity occurs within the proposed Project area, temporary construction barrier fencing, silt fencing, and/or flagging will be installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests to be avoided), as appropriate. Construction personnel and construction activity shall avoid environmentally sensitive habitat areas. The exact location of the fencing and/or flagging shall be determined by the resident engineer coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. The fencing/flagging shall be checked regularly and maintained until all construction is complete. No construction activity shall be allowed until this condition is satisfied. Any required barrier or sediment fencing and a note reflecting this condition shall be depicted on the final construction documents.

Mitigation Measure BIO-3: Stabilize Temporarily Disturbed Areas

All temporarily disturbed areas shall be stabilized upon completion of construction. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Mitigation Measure BIO-4: Conduct a Preconstruction Survey for Western Bumble Bee Hives

- Prior to construction activities a qualified biologist will conduct a pre-construction survey, where practicable, for western bumble bee hives/nests. If a bumble bee hive/nest is located, recommendations to avoid or minimize disturbance of the nest will be

developed in coordination with the County, Caltrans, and applicable land manager (USFS, State Parks, or BLM).

- The environmental awareness training described under BIO-1 will cover how to recognize western bumble bee nests and other special-status animals that may occur in the proposed Project area.

Mitigation Measure BIO-5: Avoid Disturbance or Harm to Wildlife

Following preconstruction surveys and proposed Project initiation, it is possible that wildlife species could subsequently enter or return to the proposed Project area. The following measures shall be implemented to avoid disturbance or harm to these species:

- If any special-status species or other wildlife species are observed in the proposed Project area during construction, construction shall cease until the species is allowed to move out of harm's way on its own accord.
- If it cannot be allowed to move out of harm's way on its own accord, a qualified biologist shall move the species to the nearest area of suitable habitat outside of the proposed Project area. If applicable, depending on the location and status of the species, agency approval will be obtained before any species is moved.

Mitigation Measure BIO-6: Conduct a Preconstruction Nesting Migratory Bird and Raptor Survey

If proposed Project activities will occur during the breeding season for migratory birds and raptors (generally March through August), a qualified biologist will conduct a pre-construction nesting bird and raptor survey prior to the start of construction activities (including equipment staging), as described below.

- The preconstruction nesting bird and raptor surveys shall be conducted between March 1 and August 31 within suitable habitat within the BSA no more than 14 days before the initiation of construction activities.
- If a lapse in construction activities for 14 days or longer occurs, another pre-construction survey will be performed.
- Surveys for raptor nests should extend ¼ mile from the proposed Project area to ensure that nesting raptors are not affected by construction disturbances.
- For surveys in inaccessible areas, the surveying biologist shall use binoculars to scan any suitable nesting substrate for potential raptor nests.
- If an active bird or raptor nest is identified within the construction work area or an active raptor nest is identified within a ¼ mile from the construction work area, a no-disturbance buffer shall be established around the nest to avoid disturbance of the nesting birds or raptors until a qualified biologist determines that the young have fledged and are foraging on their own. The extent of these buffers shall be determined by the biologist (coordinating with the USFS, BLM, State Parks, and/or CDFW as necessary) and shall depend on the species identified, level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

- In addition to the establishment of buffers, other avoidance measures (determined during agency coordination) may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site.
- If no active nests are found during the preconstruction surveys, then no additional mitigation is required.

Mitigation Measure BIO-7: Conduct a Preconstruction Mammal Survey

The following measures shall be implemented to minimize or avoid potential impacts to special-status mammal species:

- A qualified biologist shall conduct a pre-construction survey for special-status mammals (Sierra Nevada mountain beaver, ringtail, pygmy rabbit, California wolverine, western white-tailed jackrabbit, fisher, American badger, and Sierra Nevada red fox) and active special-status mammal nests or dens within the BSA.
- For surveys in inaccessible areas, the surveying biologist shall use binoculars to scan any suitable denning substrate for potential individuals or nests/dens.
- The preconstruction survey shall be conducted no more than 14 days before the initiation of construction activities.
- If an active special-status mammal nest/den is identified within the BSA, a no-disturbance buffer shall be established around the nest/den to avoid disturbance of the nesting/denning mammal until a qualified biologist determines that the young have dispersed. The extent of these buffers shall be determined by the biologist in coordination with CDFW, the County, and the public landowner (USFS, BLM, or State Parks, as applicable) and shall depend on the species identified, level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. In addition to the establishment of buffers, other avoidance measures (determined during agency coordination) may be implemented.
- If any non-denning species are observed in the BSA, the species will be allowed to move out of harm's way on its own. If needed, a qualified biologist will move the species to the nearest area of suitable habitat outside of the Project area. If applicable, depending on the location and status of the species, agency approval will be obtained before any species is moved.
- If no active nests/dens are found during the preconstruction surveys, then no additional mitigation is required.

Mitigation Measure BIO-8: Conduct a Preconstruction Survey for Bats

During April–September before construction begins, a qualified biologist will survey trees and rocky outcrops within the proposed Project area and identify any rock crevices, snags, hollow trees, or other refuge with cavities that may provide suitable roosting habitat for bats. If no suitable roosting sites are found, construction may proceed. If suitable roosting sites are found, they will be examined for roosting bats or their sign. If bats are not found and there is no evidence of use by bats, construction may proceed. If bats are found or evidence of use by bats is present, the qualified biologist will work with CDFW, County, and public landowner (USFS,

BLM, or State Parks) to implement measures to avoid or minimize disturbance to the colony. Additional measures may include excluding bats from the site before their hibernation period (mid-October to mid-March) and before construction begins.

b and c. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS; or on federally-protected wetlands as defined by Section 404 of the federal CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?

Based on results of the October 2017 wetland delineation field work, a total of 0.515 acre of waters of the U.S. and State are present in the Project area. A discussion of each natural community that would likely qualify as waters of the U.S. and/or State, as well as riparian habitat, is provided below. Figures showing the locations of these features are presented in Appendix B.

Three communities had positive indicators of hydrophytic vegetation, hydric soil, and hydrology and would therefore qualify as jurisdictional wetlands of the U.S. and State: 1) seasonal wetland, 2) montane riparian wetland, and 3) seep-spring. The seasonal wetland natural community consists of low-lying, moist swales that slowly convey water from surrounding uplands to adjacent drainages. The montane riparian wetland natural community is located along the bank of Hot Springs Creek, within the creek's ordinary high water mark (OHWM). The seep-spring vegetation natural community occurs along Hot Springs Road within the existing roadside cut and fill.

There are also five types of features with a well-defined OHWM that are considered other waters of the U.S. and State: 1) perennial stream, 2) intermittent drainage, 3) intermittent stream, 4) ephemeral stream, and 5) wetland ditches. Hot Springs Creek is the only perennial stream within the BSA. It is a part of the Lahontan Basin and drains to northeast to the Carson Sink in Nevada. The "Town Ditch" is an intermittent drainage in the BSA used to convey agricultural water that has an OHWM, and supports riparian and hydrophytic vegetation. It receives surface runoff from various ephemeral drainages along its length and eventually drains to Millberry Creek. It is considered likely to qualify as a water of the U.S. and State.

There are three unnamed intermittent streams in the BSA, as well as approximately 16 ephemeral drainages, some of which flow into Hot Springs Creek. These intermittent streams and ephemeral drainages possess an OWHM and are likely to qualify as waters of the U.S. and State.

Wetland ditches are located throughout the BSA, some of which function as part of the water distribution and/or roadside drainage system. Some ditches drain to Hot Springs Creek. These wetland ditches are bed and bank features that support hydrophytic vegetation, hydric soil, and wetland hydrology. Some ditches are stormwater control features excavated in uplands that and are unlikely to qualify as waters of the U.S., but may qualify as waters of the State. Some wetland ditches support wetlands and drain wetlands into wetlands, and would likely qualify as waters of the U.S. and State.

Several upland ditches are also located within the BSA, with a defined bed and bank. These ditches flow during storm events and are excavated in uplands. These ditches are part of a stormwater control system and only collect water from the surrounding hillslopes and roadways, and are unlikely to qualify as waters of the U.S. and State.

Riparian communities regulated by CDFW include the montane riparian wetland natural community, described above, as well as adjacent upland montane riparian scrub, outside of the OHWM and bordering the stream's floodplains. Trees and shrubs of varying densities, primarily willows and cottonwoods, within the riparian corridor overhang various streams, providing shade to keep water temperatures down and providing detritus and food for aquatic species.

Descriptions of the Natural Communities found within the BSA provided in Appendix B identify vegetation alliances present, which were assessed based on "A Manual of California Vegetation" (Sawyer et al 2009). CDFW ranks California's Natural Communities on a scale of 1 (very rare and threatened) to 5 (demonstrably secure), based on standardized quantitative rarity and threat parameters (CDFW 2018). Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA. Blue wild rye montane meadows identified within irrigated pasture areas are ranked S3? (a question mark denotes an inexact numeric rank because there are insufficient samples over the full expected range of the type). Black cottonwood forest areas found within montane riparian wetlands and montane riparian scrub are ranked S3. The proposed Project could affect sensitive natural communities and other natural communities through vegetation removal, ground disturbance, and through the introduction and spread of invasive non-native plant species.

As a result of the proposed construction activities, the Project would affect up to 0.515 acre of waters of the U.S. and State, consisting of approximately 0.164 acres of temporary impacts and 0.351 acres of permanent impacts (Table 3). During construction, direct permanent and temporary effects to waters of the U.S. and State, including montane riparian wetlands, may result from vegetation removal, earth moving activities, and culvert replacement.

Table 3. Summary of Permanent and Temporary Effects by Natural Community

Natural Community	Temporary Impact (acres)	Permanent Impact (acres)
Developed		
Developed	0.519	10.861
Upland Communities		
Irrigated Pasture	0.057	0.074
Great Basin Mixed Scrub	0.443	0.602
Jeffery Pine Forest	2.654	3.082
Montane Riparian Scrub	0	0
Montane Meadow (dry)	0	0
Upland ditch	0.151	0.364
Wetland Communities		
Season Wetland	0	0
Montane Riparian Wetland	0.022	0.009

Natural Community	Temporary Impact (acres)	Permanent Impact (acres)
Seep-spring	0.072	0.144
Waters of the U.S.		
Perennial Stream	0	0
Intermittent Stream	0.007	0.01
Intermittent Drainage	0.038	0.099
Ephemeral Stream	0.151	0.364
Wetland Ditch	0.025	0.089
Total	**3.988**	**15.334**

The Project could also result in indirect effects on jurisdictional waters. Earth moving adjacent to streams due to road construction could result in increased sediment loads, turbidity, and siltation into the watershed. The accidental introduction of wash-water, solvents, oil, cement, or other pollutants during construction could also harm aquatic environments.

Implementation of standard erosion and sediment control practices, as required by Caltrans Standard Specifications and Special Provisions for water pollution control measures, and by the State Water Resources Control Board (SWRCB) under the General Construction Permit and as required by the NPDES, would prevent potential effects on water quality in receiving waters. The contractor is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) that describes and illustrates placement of Best Management Practices (BMPs) within the work area. Implementation of the SWPPP would minimize these potential impacts and ensure that the proposed Project does not violate water quality standards or waste discharge requirements. BMPs prevent discharge from the site of soil or construction wastes or debris, including contaminants from construction materials, tools, and equipment. Standard BMPs may include, but are not limited to the following:

- Install sediment fencing, fiber rolls, or other erosion and sediment control measures between the designated work area and aquatic features, as necessary, to ensure that construction debris and sediment does not inadvertently enter the drainage;
- Stabilize all exposed soil prior to potential precipitation events greater than 0.5 inch;
- Limit vegetation removal to areas necessary for road construction;
- Implement effective handling, storage, usage, and disposal practices to control hazardous materials and manage waste and non-stormwater runoff in the work area before they come in contact with receiving waters.
- No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of aquatic habitat.
- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Implement spill and leak prevention procedures;

- Use vehicle tracking control.

Potential direct impacts to waters of the U.S. and state, riparian habitat, and sensitive natural communities, would be avoided and minimized through implementation of Mitigation Measures BIO-1 through BIO-3 and BIO-9 through BIO-11. Therefore, impacts would be ***less than significant with implementation of mitigation***.

Mitigation Measures:

Mitigation Measures BIO-1 through BIO-3, described under question a.

Mitigation Measure BIO-9: Implement Measures to Reduce the Spread of Invasive Species

To prevent the accidental introduction or spread of invasive species in the Project area during construction, the following measures would be implemented:

- Only certified noxious weed-free erosion control materials will be used. All straw and seed material will be certified as weed-free prior to being used at the proposed Project area.
- Contractor will wash all construction equipment prior to bringing it onto the job site. Inspection will ensure that equipment arrives on site free of mud and seed-bearing material.
- Any reseeding of disturbed soil areas and newly constructed slopes will use an appropriate native seed mix.
- The Environmental awareness training described under BIO-1 will include information on noxious weeds in the Project area.

Mitigation Measure BIO-10: Compensate for Permanent Impacts to Waters of the U.S. and State

- To ensure the Project would not result in a net loss of waters of the U.S. and State, the County shall implement compensation measures required by the Corps, RWQCB, and CDFW during project permitting. These measures may include, but are not limited to, purchasing pay in-lieu fees or mitigation credits at a minimum 1:1 replacement ratio.

Mitigation Measure BIO-11: Compensate for Permanent Impacts to Riparian Habitat

- Prior to Project initiation, field surveys will be conducted by a qualified biologist to identify all riparian vegetation that may be trimmed or removed for the Project. The species, diameter at breast height (DBH), and maximum amount of trimming or removal that would occur would be recorded for each tree and shrub in the montane riparian wetland community in the Project area. Removal of all riparian trees with a DBHof 4 inches or greater would be offset through purchase of mitigation credits or through replanting of comparable native vegetation onsite and/or offsite as directed by the CDFW in the streambed alteration agreement. A replacement ratio of 3:1 is anticipated, but the final compensatory mitigation ratio and approach will be determined in coordination with CDFW.

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

Migratory fish are not present in the Project area and there are no known wildlife nursery sites in the Project area. Wildlife movement could be affected by the proposed Project. However, these impacts would be temporary and wildlife could continue to move through the extensive adjacent habitats during construction. Therefore, this impact is considered ***less-than-significant***.

Mitigation Measures: None required.

e, f. Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The proposed project would be consistent with the Alpine County General Plan and would not conflict with local policies or ordinances protecting biological resources. No habitat conservation plans or natural community conservation plans have been adopted for the region.

Mitigation Measures: None required.

3.5 Cultural Resources

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
5. Cultural Resources				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §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?	☐	☒	☐	☐

Environmental Setting

Alpine County is located in the ancestral home of the Washoe people. Prior to the arrival of Euro-Americans, the Washoe lived a seasonal subsistence lifestyle, moving as the seasons changed. As more Euro-Americans occupied the Alpine County region in the mid-19th century, resources became scarce. Eventually, the Washoe were relocated in large part to western Nevada. (North State Resources 2016c)

Historically, Alpine County has a rich mining and lumber history. With numerous discoveries of gold and silver in California and Nevada in the 1850s and 1860s, a number of towns sprang up in the region, including Markleeville and Silver Mountain City, in Alpine County. Although mining provided an economic boom to the region, especially after the discovery of the Comstock Lode silver ore in the mid-1860's, the principal industry in Alpine County was the lumber industry, which was founded largely to support the mining operations. (North State Resources 2016c)

To identify the potential for cultural resources to be affected by the proposed Project, a cultural resources inventory was conducted for the Project area, consisting of a records search, written contact with Native American groups and related agencies, and onsite fieldwork. A record search through the Central California Information Center located at the California State University in Stanislaus was completed, dated September 27, 2017. Letters with an invitation to consult under CEQA (Assembly Bill 52) were sent to Native American Representatives on October 4, 2018. Three resources were located within the APE but outside the area of direct impact (ADI), which includes all areas of ground disturbance and cut and fill (Figure 3). Fifty resources were located within a 1/4 –mile radius of the APE. Reported resources included both prehistoric and historic resources.

The APE along Hot Springs Road (Figure 3) underwent an intensive pedestrian survey by a qualified archaeologist in November 2017. Pedestrian transects were spaced no more than approximately 10 meters apart, although wider areas within the ADI were surveyed with 10-20 meter transects. Sheer or very steep road cuts were visually examined from the road level for any layering or strata which could suggest midden deposits or other artefactual evidence. At intervals of approximately 30 – 50 meters along the linear transect, a half-meter to meter square area was raked down to several inches. A considerable layer of pine needles and duff was encountered within the APE, except for along graveled turn-outs and road intersections.

Within the ADI, fourteen stone-lined culvert headwalls were located, photographed and mapped. These were likely constructed circa 1959 when the original dirt road may have been paved. Although old, these culverts are not unique or rare, and are unlikely to qualify as a significant historic resource eligible for state or federal listing, as defined in CEQA Guidelines Section 15064.5.

Hot Springs Road also crosses the Town Ditch, a historic-era earthen water conveyance ditch which originates from the north side of Hot Springs Creek at the confluence with Musser Creek and Jarvis Creek (in the western portion of the Project area) and continues eastward, crossing under Hot Springs Road in a culvert and eventually draining into Millberry Creek approximately ¼-mile north of the Town of Markleeville. The drainage was constructed in the late 1800's and is still actively used to convey water, primarily in the summer months, for agricultural and

ranching purposes on approximately 120 acres of irrigated pasture. An evaluation of the historic significance of this feature was completed in 2017 during utility work along Hot Springs Road. The Town Ditch was determined not eligible for listing under the federal and state register of historic places. Therefore, the Town Ditch is not considered a significant historical resource under CEQA.

Stone-lined culvert headwall.

Town Ditch, north of Hot Springs Road

Town Ditch culvert entrance under Hot Springs Road

No prehistoric resources or other historic resources were located during the pedestrian survey of the APE.

Impacts and Mitigation Measures

a and b. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5; or cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

The proposed Project would not result in the alteration of or adverse physical effect to known significant cultural resources. No significant prehistoric or historic-era sites, features, or artifacts are known to be located in the Project area, but several cultural sites have been documented nearby. These and other sites in the region show evidence of prehistoric and historic occupation of the area. The presence of documented cultural resources and sensitive landforms near the Project area suggests that the surrounding area possesses a high level of sensitivity for exhibiting evidence of prehistoric and early historic-period activities, although previous road construction and utility work along the road corridor may have already disturbed much of the ADI. It is possible that previously unknown historical and/or archaeological resources could be discovered during grading and excavation work associated with new construction. Potential impacts to previously undiscovered historic and/or archaeological resources would be avoided through implementation of Mitigation Measures CUL-1 and CUL-2. Impacts are considered ***less than significant with mitigation.***

Mitigation Measures:

***Mitigation Measure CUL-1*: Conduct Worker Environmental Awareness Training (WEAT).** Prior to any excavation or other substantial subsurface disturbance activities, any individuals

conducting the work should be given a cultural resource awareness training session and advised to watch for cultural resource materials during construction activities. This training will cover both the identification of resources that may be encountered during construction and procedures to be followed in the event of a discovery. This training can be conducted concurrently with WEAT for sensitive biological resources (Mitigation Measure BIO-1).

***Mitigation Measure CUL-2*: Protect Discovered Cultural Subsurface Resources.** If any evidence of prehistoric cultural resources (freshwater shells, beads, bone tool remnants or an assortment of bones, soil changes including subsurface ash lens or soil darker in color than surrounding soil, lithic materials such as flakes, tools or grinding rocks, etc.), or historical cultural resources (adobe foundations or walls, structures and remains with square nails, refuse deposits or bottle dumps, often associated with wells or old privies), are inadvertently unearthed during project-related activities, all work must immediately cease within 50 feet of the find, the County and Caltrans must be notified, and a qualified archaeologist shall be consulted to assess the significance of the cultural materials and recommend appropriate conservation measures. If the find is determined to be potentially significant, the archaeologist, in consultation with the County, Caltrans, and—if the find is prehistoric or Native American in nature—appropriate Native American group(s), shall develop and implement a treatment plan with an emphasis toward preservation in place. Conservation measures shall be implemented prior to re-initiation of activities in the immediate vicinity of the discovery.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project area lacks fossil-bearing rock formations (Armin et al. 1984), and few occurrences of palaeontological resources have been documented in Alpine County (University of California Museum of Paleontology 2018). The Project is therefore not expected to affect paleontological resources. The Project area does not contain any other unique geologic features. The Project would have ***no impact***.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously encountered in the vicinity of the Project. However, this does not preclude the potential for discovering buried human remains during ground disturbance associated with construction. In the event that human remains are discovered during proposed Project construction, Mitigation Measure CUL-3 shall be implemented. With implementation of Mitigation Measure CUL-3, potential impacts resulting from disturbance of human remains as a result of the proposed Project would be considered ***less than significant with incorporated mitigation.***

Mitigation Measures:

***Mitigation Measure CUL-3*: Implement Procedures for Human Remains.** In accordance with the California Health and Safety Code, Section 7050.5, and the Public Resources Code 5097.98, regarding the discovery of human remains, if human remains are discovered during construction, all work must immediately cease, and the Alpine County Sheriff/Coroner must be contacted. If

the Coroner determines that the remains are those of a Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) and subsequent procedures shall be followed, according to State Public Resources Code Sections 5097.9 to 5097.99, regarding notification of the Native American Most Likely Descendant.

3.6 Geology and Soils

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
6. Geology and Soils				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated in 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 & 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 soils, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Environmental Setting

Three soil map units, Joecut-Heenlake (380, 3080), and Lostpepper loam, 2 to 15 percent slope (9060), are present within the Project area (NRCS 2018). The Project area is located in Alpine County within the physiographic unit referred to as the Sierra Nevada Geomorphic Province (DOC 2017). This province encompasses some well know landmarks such as Yosemite Valley and Mt. Whitney and is bound by the Great Valley to the west, the Great Basin to the east, the Mojave Desert to the south, and the Cascade Range to the north. The geologic formation of the Sierra Nevada is tilted fault block with deep river canyons coursing through the western slope (DOC 2002).

According to the online Fault Activity Map of California (DOC 2010) issued in compliance with the Alquist-Priolo Earthquake Fault Zoning Act, the Markleeville USGS 7.5 minute quadrangle, which includes the Project area, is located within an Alquist-Priolo Earthquake Fault Zone. Approximately 2.1 miles west of the Projects eastern terminus, Hot Springs Road crosses the Genoa Fault (movement within the last 15,000 years), and approximately 0.6 miles west of Genoa Fault is an unnamed Quaternary age fault (no movement in the last 1.6 million years) (Crawford and Associates 2017).

Impacts and Mitigation Measures

a, i-iv. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?

The Project area crosses known earthquake faults and is potentially at risk for strong seismic ground shaking or seismic-related ground failure. Hot Springs road passes through an Alquist-Priolo special fault study zone. Liquefaction is a specialized form of ground failure caused by earthquake ground motion. It is a "quicksand" condition occurring in water-saturated, unconsolidated, relatively clay-free sands and silts caused by hydraulic pressure (from ground motion) forcing apart soil particles and forcing them into quicksand-like liquid suspension. Since the Project area consists of clayey soils, they are not considered highly susceptible to liquefaction and no part of Alpine County is identified as having a high potential risk of landslides (DOC 2015a, NRCS 2018). Though a fault zone is present in the Project area, the Project would not expose people or structures to additional risk associated with seismic activity or liquefaction. Therefore, the proposed Project will have ***no impact***.

Mitigation Measures: None required.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Soils in the Project area have a moderate erosion potential (NRCS 2003). Construction of the proposed Project would involve site grading and earthmoving activities which would expose soils and could result in soil erosion until the road is paved and vegetation re-establishes in temporarily disturbed areas. Based on preliminary plans, more than 5 acres of soil disturbance would occur during construction. Soil erosion and topsoil loss would be limited by implementing standard construction practices and BMPs for erosion and sediment control.

Because erosion control measures would be implemented, the proposed Project has limited potential to result in substantial soil erosion or loss of topsoil. Long-term effects of the Project on soil erosion are not anticipated as slopes are stabilized, and vegetation is re-established in temporarily disturbed areas. This impact would be considered ***less-than significant.***

Mitigation Measures: None required.

c. Would the project 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?

The proposed Project is not located on a geologic unit or soil that is unstable or that would become unstable as a result of the proposed Project. The proposed Project is committed to implementing all recommended standard practices and standard engineering practices to minimize the risk of liquefaction, lateral spreading, subsidence, or collapse. Therefore, the proposed Project will have ***no impact.***

Mitigation Measures: None required.

d. Would the project be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?

Soils in the Project area are classified by the Natural Resources Conservation Service (NRCS) as being underlain predominately by silty or clayey sand with gravel with increasing cobbles from 3 to 5+ feet below ground surface (Crawford and Associates 2017). These soils have a low potential for expansion, therefore the proposed Project would have ***no impact***.

Mitigation Measures: None required.

e. Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic tanks or alternative wastewater disposal systems are proposed as part of the proposed Project. There would be ***no impact.***

Mitigation Measures: None required.

3.7 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
7. Greenhouse Gas Emissions				
Would the project:				

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Environmental Setting

The Project area is within the jurisdiction of the GBUAPCD. Existing land uses in the proposed Project area consist of Open Space and Residential. Nearby sensitive receptors include neighboring residences. There are no schools, hospitals or other sensitive receptor locations within the vicinity of the Project area.

Greenhouse gases (GHGs) have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; reduce snowpack, leading to less overall water storage in the Sierra Nevada; affect rainfall, leading to changes in water supply, increased frequency and severity of droughts, and increased wildfire risk; and affect habitat and agricultural land, leading to adverse effects on biological and agricultural resources. Neither the State of California or the GBUAPCD has identified quantitative thresholds of significance for GHGs. Alpine County created an Energy Action Plan sponsored by the Sierra Business Council and Pacific Gas and Electric utility company, which completed a community-wide and local government GHGs inventory (Sierra Business Council 2016). The Energy Action Plan aims at increasing energy efficiency, water efficiency, and renewable energy efficiency in Alpine County (Sierra Business Council 2016). After review of GHG thresholds used by various air pollution districts in California, a threshold of 10,000 metric tons of carbon dioxide equivalent per year ($MTCO_2$ e/yr) is used in this analysis to identify the point at which a Project would have a cumulatively considerable contribution to global climate change.

Impacts and Mitigation Measures

a and b. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment; and would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed Project would produce GHGs emissions during construction through the use of diesel powered construction-related equipment and construction-related materials. After construction activities, traffic levels are predicted to stay similar to current conditions, so the Project would not increase the generation of GHG emissions in Alpine County. GHGs emissions from Project construction would not exceed the significance threshold of 10,000 $MTCO_2$ e/yr.

GHG emissions would be short-term, would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, and as such would not be considered significant. For these reasons, this impact would be considered ***less than significant***.

Mitigation Measures: None required.

3.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
8. Hazards and Hazardous Materials				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ 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 §65962.5 and, as a result, would it create a significant hazard to the public or to 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 a 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) 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?	☐	☐	☐	☒

Environmental Setting

An Initial Site Assessment (ISA) was completed for the Project area and is incorporated by reference (Crawford and Associates 2017). The purpose of the ISA was to identify recognized

soil or groundwater contamination and hazardous material issues that may affect the proposed Project. The ISA determined that there is no evidence of any Recognized Environmental Conditions in the Project area (Crawford and Associates 2017).

The ISA determined that below-ground utilities are present within the Project corridor, based on an exposed utility box observed in an eroded cut bank on the northern side of Hot Springs Road. The ISA also identified several existing small structures in the Project area, including traffic signs and a fire hydrant, that could be painted with lead-based paint, several traffic signs posted on unpainted treated wood poles, and yellow thermoplastic traffic striping that could contain heavy metals such as lead and chromium at concentrations exceeding California hazardous waste thresholds. (Crawford and Associates 2017)

Impacts and Mitigation Measures

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

If construction activities will disturb traffic signs or fire hydrants, the potential presence of lead-based paint on the structures will be considered in evaluating handling, reuse, and disposal options. The presence of lead-based paint could require the preparation of Lead Compliance Plan in accordance with Caltrans Standard Specifications and a Health & Safety Plan for workers in accordance with California Division of Occupational Safety and Health requirements (Crawford and Associates 2017). All treated wood disturbed by the proposed Project would be handled as treated wood waste and disposed of as hazardous waste (Crawford and Associates 2017). Existing thermoplastic striping would be considered hazardous material and handled and disposed of in accordance with Caltrans Standard Specifications. Through the application standard specifications for lead-based paint, treated wood waste, and thermoplastic traffic striping, potential risks associated with hazardous materials would be avoided. Therefore, the proposed Project would have ***less-than significant impacts***.

Mitigation Measures: None required.

b. Would the project 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?

The proposed Project is unlikely to cause a significant hazard to the public or the environmental. Therefore, there would be ***no impact***.

Mitigation Measures: None required.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?

There are no existing schools within 5 miles of the Project area (Crawford and Associates 2017). Therefore, there would be ***no impact.***

Mitigation Measures: None required.

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

The Project area is not included on a list or database of hazardous materials sites compiled by any regulatory agency (CalEPA 2018). Therefore, there would be ***no impact.***

Mitigation Measures: None required.

e and f. 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 a public use airport, would the project result in a safety hazard for people residing or working in the project area; 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?

The Project area is not located within an airport land use plan, within 2 miles of a public airport, or in the vicinity of a known private airstrip. The Alpine County airport, located 3 miles north of Markleeville, is classified as Limited Use by the Caltrans Division of Aeronautics and serves approximately 650 users (Alpine County 2017). There would be ***no impact***.

Mitigation Measures: None required.

g. 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?

Alpine County is identified as having a very high risk of wildfires by the California Department of Forestry and Fire Protection's (CalFire) Fire Hazard Severity Zones Map (CalFire 2012). The Project is not located near urbanized areas; however, rural residential development is located adjacent to Hot Springs Road. Though the Project area is designated as having a high risk of wildfires, the Project will not add additional risk to loss, injury or death involving wildland fires. The USFS and BLM provide wildland fire protection to Alpine County by virtue of an intergovernmental agreement referred to as the "Five Party Agreement." The Sierra Front Interagency Fire Dispatch Center located at the Minden Tahoe Regional Airport in Douglas County, Nevada is capable of dispatching fire suppression resources to Alpine County and seasonal wildland firefighting crews are stationed at the USFS facilities located in Markleeville (Alpine County 2017). Structural fire protection response is provided by Eastern Alpine Fire and Rescue, a volunteer department (Alpine County 2017). Implementation of the proposed Project could improve future response times to wildland fires in the form of a wider street for firetrucks and equipment to more easily access and navigate and would also benefit evacuees along Hot Springs Road by providing shoulders. Therefore, the proposed Project would have ***no impact.***

Mitigation Measures: None required.

3.9 Hydrology and Water Quality

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
9. Hydrology and Water Quality				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a 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?	☐	☐	☐	☒

Environmental Setting

The Project is located in the Upper Carson Sub-basin (HUC 8 Unit 16050201) and the Upper East Fork Carson River Watershed (HUC 10 Unit 1605020101) (Figure 5). Water in the BSA

originates from precipitation events, groundwater, and snowmelt, which flows from the uplands in the surrounding steep slopes and across the landscape to drainages and creeks that flow to the East Fork Carson River. The Project area includes intermittent and ephemeral streams, as well as culverts and roadside ditches (Appendix B), which transport water through the Project area into Hot Springs Creek, a tributary to Markleeville Creek and eventually, the East Fork Carson River.

Beneficial uses of Markleeville Creek include agricultural supply (AGR); municipal and domestic supply (MUN); ground water recharge (GWR); water contact recreation (REC-1) and non-contact water recreation (REC-2); commercial and sport fishing (COMM); cold freshwater habitat (COLD); wildlife habitat (WILD); and migration (MIGR), spawning, spawning, reproduction, and development (SPWN) of aquatic species (Lahontan Regional Water Quality Control Board 1995, as amended 2015).

The Project is not within the boundary of any 100-year floodplains as indicated by the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM). The boundary of a 100-year floodplain is used to demarcate flood hazards and indicates the geographic area having a one percent chance of being flooded in any given year. The FIRM shows Alpine County to be entirely within a Zone D flood hazard area. The Zone D designation is used for areas where there are possible but undetermined flood hazards where no analysis of flood hazards has been conducted.

As described in the Biological Resources section, an aquatic resources delineation study was completed for the Project to determine potential waters of the U.S. under the jurisdiction of the Corps pursuant to Section 404 of the CWA. The aquatic resources delineation for the Project area identified a total of 0.515 acre of aquatic resources, comprised of wetland communities (montane riparian wetland and seep-spring) and other waters of the U.S. (intermittent drainage, ephemeral stream, and wetland ditch) (Appendix B).

Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements? and f. Would the project otherwise substantially degrade water quality?

The proposed Project includes ground disturbance that will expose soil and could result in accelerated erosion, which could affect water quality in downstream water bodies by increasing turbidity and/or sedimentation. The proposed Project could also result in the degradation of water quality from runoff of petroleum-based products associated with equipment and vehicles used during construction.

Implementation of standard erosion and sediment control practices, as required by Caltrans Standard Specifications and Special Provisions for water pollution control measures, and by the SWRCB under the General Construction Permit, would prevent potential effects on water quality in receiving waters. These standard measures are described above under Biological Resources.

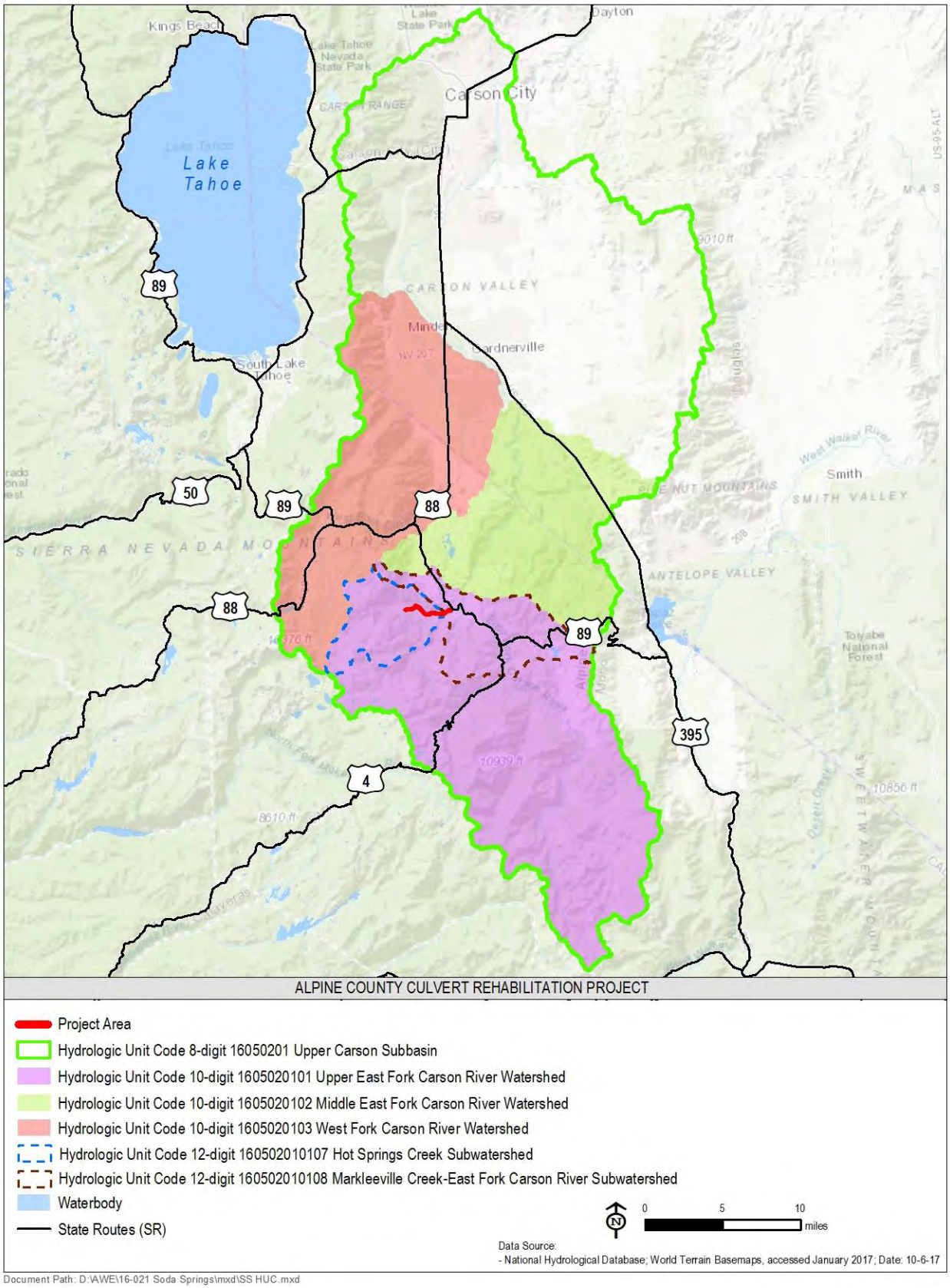


Figure 5. Hydraulic Unit Watershed

The Project would not affect long-term water quality conditions in the Project area. The Project would not alter the number of vehicles traveling on Hot Springs Road or change land uses in the watershed in a manner that could lead to increases in water pollutants.

The implementation of standard construction practices to prevent erosion and sedimentation would minimize water quality impacts during construction. Therefore, the proposed Project would have a ***less-than-significant impact.***

Mitigation Measures: None required.

b. Would the project 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)?

The proposed Project would result in a minor expansion in the amount of impervious surfaces in the Project area (up to approximately 4.671 acres). However, the proposed Project is not expected to interfere with groundwater recharge in the Project area. Construction-related excavation is not expected to occur to a depth that would encounter groundwater. Therefore, the proposed Project would have ***no impact*** on groundwater resources.

Mitigation Measures: None required.

c, d, and e. Would the project 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; substantially alter the existing drainage pattern of a 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; or 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?

The proposed Project would not substantially alter the existing drainage pattern of the site in a manner that would result in erosion, siltation, or flooding on- or off-site. Additionally, the proposed Project would not create or contribute runoff water that would exceed the capacity of stormwater drainage systems or provide additional sources of polluted runoff.

The Project would result in an increase in the amount of impervious surface. Based on preliminary plans, up to approximately 4.671 acres of additional impervious surface would be added through widening Hot Springs Road. The Project has the potential to increase the velocity or the volume of runoff due to the additional impervious area introduced by the Project. However, increases in impervious surface and changes in flow rates are anticipated to be minor in comparison to the overall receiving watershed area of Hot Springs Creek, so no significant net change in the volume or timing of storm water runoff when compared to existing conditions would occur.

The general site drainage pattern would be maintained with the proposed Project. Existing culverts would be replaced and roadside drainage ditches may be moved to accommodate the wider roadway. However, no change in the overall drainage pattern would occur.

For these reasons, the potential impacts of the proposed Project resulting from altered drainage patterns, and the capacity of existing storm water drainage facilities would be considered ***less than significant.***

Mitigation Measures: None required.

g, h, and i. Would the project 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; would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows; or would the project 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?

The construction of housing is not a part of the proposed Project. Therefore, proposed Project implementation would not result in housing being constructed within a federally designated 100-year flood hazard area nor would it impede or redirect flood flows. Construction of the wider Hot Springs Road would not impede or redirect flood flow. Additionally, the proposed Project is not in an area that could be exposed to flooding due to failure of levees or dams and therefore would not expose people or structures to a significant risk of loss, injury, or death involving flooding. The Project would have ***no impact*** on flood hazards.

Mitigation Measures: None required.

j. Would the project result in inundation by seiche, tsunami, or mudflow?

The proposed Project would not increase the potential or increase the risk to people or structures from seiches, tsunamis, or mudflow. The proposed Project would have ***no impact.***

Mitigation Measures: None required.

3.10 Land Use and Planning

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
10. Land Use and Planning				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific	☐	☐	☒	☐

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
	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?	☐	☐	☐	☒

Environmental Setting

The proposed Project is located within an unincorporated area of Alpine County, California, and is governed by the Alpine County General Plan (2017) and Alpine County Code of Ordinances (2018). The Project is located along Hot Springs Road from Laramie Street to the roadway's end at Grover Hot Springs State Park, west of the unincorporated community of Markleeville, near State Route 89. The Project includes parcels adjacent to the Hot Springs Road, including parcels owned and managed by the USFS, BLM, and State Parks, as well as privately owned parcels of sparse housing outside of the Project area but in close vicinity. Shay Creek Summer Homes are located at the western side of the Project area, near Grover Hot Spring State Park, south of Hot Springs Road.

The majority of the Project area is designated by the County General Plan land use map as Open Space (Alpine County 2017). Areas classified as low, medium and high density residential land use are located within the eastern portion of Project area along Hot Springs Road, Montgomery Street, Laramie Street, and Barrett Court. There are also housing units near the middle of the Project area off Hot Springs Road on Pleasant Valley Road and on Timber Lane. Just east of and outside of the eastern terminus of the Project area, portions of the community of Markleeville are classified as Institutional and Commercial land use areas. The Alpine County Clerk and Alpine County Sheriff's Department are within Institutional land use area. The U.S. Postal Service office, Markleeville General Store, and various restaurants and shops are within Commercial land use area.

The majority of the Project area is zoned for agriculture (Alpine County 2018). There are also some areas zoned for agriculture-commercial recreation near Grover Hot Springs State Park, as well as portions of the Project area zoned for timber preserve, residential neighborhood, residential estate (1, 5 and 20 acres), commercial, and planned development (Alpine County 2018).

Impacts and Mitigation Measures

a. Would the project physically divide an established community?

The proposed Project involves widening an existing road to construct paved shoulders and bike lanes. The proposed Project area would not divide an established community, and therefore would have ***no impact.***

Mitigation Measures: None required.

b. Would the project 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?

Much of the proposed Project is located within Toiyabe National Forest and is subject to the Toiyabe National Forest Land and Resource Management Plan (USFS 1986). The Alpine County General Plan and Toiyabe National Forest Land and Resource Management Plan were reviewed to determine any potential conflicts with policies and goals. The Project does not conflict with USFS and County policies. The County will obtain authorization from the USFS for roadway modifications and to ensure compliance with the land and forest management plan. The modified roadway will not change land uses in the proposed Project area. Therefore, there would be ***no impact***.

Mitigation Measures: None required.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No habitat conservation plans or natural community conservation plans have been adopted for the area. There, there would be ***no impact***.

Mitigation Measures: None required.

3.11 Mineral Resources

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
11. Mineral Resources				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future 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?	☐	☐	☐	☒

Environmental Setting

Known or suspected mineral resources in Alpine County include sand and gravel. The Project area is not located in a mineral resources zone as described by the Surface Mining and Reclamation Act Mineral Land Classification Report. No important mineral resources are known from the proposed Project area. (DOC 2015b)

Impacts and Mitigation Measures

a, b. Would the project result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State; or 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?

There are no known mineral resources associated with the Project area. There will be ***no impact.***

Mitigation Measures: None required.

3.12 Noise

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
12. Noise				
Would the project:				
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 in 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 in or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

The proposed Project is located in an area of predominantly Open Space with rural residential use. Since Alpine County lacks sizeable industrial operations, most noise emissions are from transportation facilities and corridors (Alpine County 2017). Highway 89 is located approximately 0.14 mile east of the Project.

Impacts and Mitigation Measures

a and b. Would the Project result in 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; or would the project result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

The Project would not result in significant long-term increases in vehicle traffic, introduce new stationary noise sources, or increase household noise in excess of existing conditions. Therefore, noise generated by the proposed Project would be limited to short-term construction activities.

Noise associated with short-term construction activities typically occurs intermittently and varies depending upon the nature or phase of construction (e.g., land clearing, grading, and excavation). Noise generated by construction equipment, including earth movers and material handling equipment, can reach high levels, but diminishes in volume with distance. Typical noise levels for construction equipment are summarized in Table 4. Depending on the activities performed and equipment usage, combined average-hourly noise levels at construction sites can reach levels of up to approximately 83 dBA L_{eq} at 50 feet, expressed in a-weighted decibels (dBA) [2].

Table 4. Typical Construction Equipment Noise Levels

Type of Equipment	Typical Noise Level at 50 feet (dBA L_{max})
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Pump	82
Concrete Vibrator	76
Dozer	85
Generator	81
Grader	85
Jack Hammer	88

[2] Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an "A-weighted" sound level (expressed in units of dBA) can be computed based on this information.
Energy Equivalent Sound Level (Leq) represents an average of the sound energy occurring over a specified period. The 1-hour A-weighted equivalent sound level (Leq[h]) is the energy average of A-weighted sound levels occurring during a one-hour period, and is the basis for the Noise Abatement Criteria used by Caltrans.

Type of Equipment	Typical Noise Level at 50 feet (dBA L_{max})
Loader	85
Paver	89
Roller	74
Saw	76
Truck	88

Nearby sensitive receptors include residents and recreationists. The closest residences to the Project area are less than 50 feet from Hot Springs Road. The intensity of construction noise would be highest at these adjacent residences and would diminish over distance to other residences. Similarly, any ground vibration resulting from construction equipment is expected to be diminished to imperceptible levels before reaching neighboring residences.

Campgrounds at Grover Hot Springs State Park are located more than 500 feet north of the western terminus of the Project; temporary daytime construction noise would not result in a significant impact on campground users.

Construction will be completed in accordance with the County's Noise Ordinance, which requires that all construction activities that occur in the close vicinity of residences and that could cause noise disturbance to residences (i.e. expose residences to equivalent continuous sound levels exceeding 65 A-weighted decibels) will be limited to daytime hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, and 9:00 a.m. to 3:00 p.m. on Saturday and Sunday unless conditions warrant that certain construction activities occur during evening or early morning hours (e.g., extreme heat) (Alpine County 2018). Therefore, this impact is considered ***less than significant***.

Mitigation Measures: None required.

c. Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Noise generated by the proposed Project would be limited to short-term construction activities. No substantial permanent increase in ambient noise levels would occur, so there would be ***no impact***.

Mitigation Measures: None required.

d. Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction activities would result in temporary increases in ambient noise levels for neighbors. Construction noise would be short-term and intermittent. Construction would be limited to daytime hours per the County's noise ordinance. Therefore, the impact is considered ***less than significant***.

Mitigation Measures: None required.

e and f. 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; and 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?

The proposed Project is not located within an airport land use plan, within 2 miles of a public or public use airport, or in the vicinity or a private air strip. As a result, the Project area is not subject to high levels of aircraft noise and would not result in a safety hazard for individuals or construction workers located in the proposed Project area. ***No impact***.

Mitigation Measures: None required.

3.13 Population and Housing

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
13. Population and Housing				
Would the project:				
a) Induce substantial population growth in an area either directly (*e.g.*, by proposing new homes and businesses) or indirectly (*e.g.*, 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?	☐	☐	☐	☒

Environmental Setting

The western portion of the Project area borders low, medium, and high density residential areas There are also rural residences along other portions of the Project Area including the Shay Creek Summer Homes near Grover Hot Spring State Park. See the Land Use and Planning Section for more information. The County of Alpine has the smallest population in California with a permanent population of 1,100 and an 11% growth rate between 1980 and 1990. The current population of Markleeville is 197 (Alpine County 2017).

Impacts and Mitigation Measures

a. Would the project induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The proposed Project does not include the construction of new homes or businesses and does remove an existing impediment to growth. Therefore, the proposed Project would not induce substantial population growth directly or indirectly. There will be ***no impact***.

Mitigation Measures: None required.

b and c. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed Project would not require the displacement of existing housing or the construction of replacement housing. The Project would not displace people or businesses; no ROW will be acquired from private landowners. Therefore, there would be ***no impact.***

Mitigation Measures: None required.

3.14 Public Services

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
14. Public Services				
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Environmental Setting

In the Project area, structural fire protection response is provided by Eastern Alpine Fire and Rescue volunteer fire department (Alpine County 2017). Wildland fire protection is provided by the USFS and BLM through an interagency agreement (Alpine County 2017). Public health facilities are located in Woodfords and adequately support the county. Public education is provided through the Alpine Unified School District, with schools in Woodfords and Bear Valley, and another grade 8-12 school available for enrollment in Douglas County, Nevada. Police protection is provided by the Alpine County Sheriff's Department. Grover Hot Springs State Park is located at the terminus of the Project area.

Impacts and Mitigation Measures

a-e. 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 fire protection, police protection, schools, parks, or other public facilities?

The proposed Project would not result in the need for new or altered public services. Therefore, the Project will have ***no impact***.

Mitigation Measures: None required.

3.15 Recreation

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
15. Recreation				
Would the project:				
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

Grover Hot Spring State Park, located at the western terminus of the Project area, offers recreational facilities and activities including campsites, RV access, bike trails, hiking trails, fishing, swimming, wildlife viewing, and picnic areas. Hot Springs Road is used by recreationists to access the State Park, as well as USFS hiking and bike trails, including the Charity Valley Trailhead, Markleeville Village at Pleasant Valley Road, and the Shay Creek Summer Home Residential Tract near the Grover Hot Springs State Park. The Markleeville Library and a small public park are located at the eastern terminus of the Project area, at the intersection of Hot Springs Road and Laramie Street. The community of Markleeville is generally used as a rest area for those commuting to destinations within and surrounding Alpine County, which provides year-round recreational opportunities ranging from skiing, snowboarding, snowmobiling, hiking, camping, fishing, biking, and Frisbee golf.

a and b. 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; or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The proposed Project involves widening an existing road to construct paved shoulders and bike lanes, which would benefit recreational users, improve safety for bikers and pedestrians using Hot Springs Road. These improvements may result in an increase in the use of Hot Springs Road by bikers and pedestrians, but would not result in an increase in the overall number of recreationalists in the area or in the physical deterioration of any recreational facilities.

The proposed Project includes the expansion of a recreational bike lane. All potential adverse physical effects on the environment resulting from the Project would be mitigated to less than significant levels, as discussed throughout this IS/MND.

Temporary delays in accessing recreation facilities and increased noise at recreational sites may occur during construction. Charity Valley Trailhead is a popular trailhead that is accessed via Hot Springs Road with a parking area that may be used for Project staging. However, the parking area is large enough to accommodate Project staging along with existing recreational users. Hot Springs Road will remain open during construction; one-way traffic control will result in short-term traffic delays for recreation users. Construction noise will be limited to daytime hours and will not significantly affect campground users at Grover Hot Springs State Park (see Noise section). The impact to trail and park users would be ***less than significant***.

The County will coordinate scheduling to avoid holiday weekends, will comply with the County noise ordinance, and will maintain open road conditions along Hot Springs Road in the form of one-way traffic control during construction. The Project will not significantly impede access to recreational facilities and will not be growth inducing. This impact would be ***less than significant.***

Mitigation Measures: None required.

3.16 Transportation and Circulation

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
16. Transportation and Circulation				
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-	☐	☐	☒	☐

		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
	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 regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of such facilities?	☐	☐	☐	☒

Environmental Setting

The Project area is located along Hot Springs Road, with its western terminus at Grover Hot Spring State Park, and eastern terminus in the unincorporated community of Markleeville. The Project area is located approximately 0.14 miles west of Highway 89. Hot Springs Road is an important route for commuters traveling to Grover Hot Springs Park, as it is the only access point for the State Park.

Transportation within Alpine County is predominately automobile-oriented due to the rural setting and limited options for other modes of transportation (Alpine County 2017). Road closures can occur in winter months, though traffic peaks occur in the summer months when all roadways are open, and winter weekends due to the proximity to nearby resort communities such as Bear Valley and Kirkwood resorts (Alpine County 2017).

Impacts and Mitigation Measures

a and b. Would the project 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 or would the project 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?

The proposed Project does not conflict with the Circulation Element of the Alpine County General Plan or any other applicable plan, ordinance, or policy. The Project is not growth inducing. Construction activities would be expected to result in a temporary increase in vehicle trips to the Project area during construction by construction workers and equipment. Hot Springs Road will remain open during construction; one-way traffic control will result in short-term traffic delays for motorists. Temporary traffic delays would result in a ***less-than-significant impact.***

Mitigation Measures: None required.

c. Would the project 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

The proposed Project would not affect air traffic patterns. Therefore, the proposed Project would have ***no impact***.

Mitigation Measures: None required.

d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed Project would not increase hazards due to a design feature. Implementing roadway shoulders will eliminate an existing hazard, so the Project will benefit the transportation system and improve safety for motorists, cyclists and pedestrians. The proposed Project would not result in incompatible uses, which could result in traffic conflicts or hazards. The proposed Project would have ***no impact.***

Mitigation Measures: None required.

e. Would the project result in inadequate emergency access?

The proposed Project would not result in inadequate emergency access; open road conditions will be maintained during construction in the form of one-way traffic control. Incorporating roadway shoulders will improve emergency access and road safety. There would be ***no impact***.

Mitigation Measures: None required.

f. Would the project conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of such facilities?

The proposed Project would not conflict with adopted policies regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance of such facilities. The proposed Project would benefit bicycle and pedestrian facilities. ***No impact*** to public transit would occur.

Mitigation Measures: None required.

3.17 Tribal Cultural Resources

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
17. Tribal Cultural Resources				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Setting

The proposed Project is located within the ethnographic territory of the Washoe Tribe. The NAHC was contacted to request a search of the Sacred Lands file for the vicinity of the proposed Project area and contact information for Native Americans who might have an interest in the proposed Project. The NAHC replied that no Native American cultural resources were reported from the Sacred Lands file records search for the Project area and provided a list of Native American contacts for Alpine County. Contacts included representatives from the Washoe Tribe of Nevada and California and the Calaveras Band of Mi-wuk Indians. The Native American contacts on the NAHC list were mailed letters on October 4, 2018, with an invitation for consultation. To date, no reply has been received.

Impacts and Mitigation Measures

a, i and ii. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native

American tribe, and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No prehistoric resources or other potential tribal cultural resources were identified during field investigations and tribal representatives did not identify concerns about potential tribal cultural resources in the area. Nevertheless, it is possible that previously unknown tribal cultural resources could be discovered during grading and excavation work associated with new construction. Potential impacts to tribal cultural resources would be avoided through implementation of Mitigation Measures CUL-1 through CUL-3, described in the Cultural Resources Section. Potential impacts to tribal cultural resources are considered ***less than significant with mitigation.***

Mitigation Measures: Implement Measures CUL-1 through CUL-4.

3.18 Utilities and Service Systems

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
18. Utilities and Service Systems				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable 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 impacts?	☐		☐	☒
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 impacts?	☐	☐	☒	☐
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 that 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Setting

The Markleeville Public Utilities District provides wastewater collection and conveyance service to the unincorporated community of Markleeville. Domestic water service to Markleeville is provided by Markleeville Mutual Water Company, which is a small district with limited resources. Most rural residences in the County are served by on-site wells and septic systems. Waste collection services in the area are provided by Douglas County Disposal service. Electricity is provided by Liberty Utilities, though several utilities service Alpine County.

a, b, d and e. Would the project exceed wastewater treatment requirements of the applicable RWQCB; 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 impacts; have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed; Result in a determination by the wastewater treatment provider that 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?

The proposed Project would not generate wastewater or require the development of new wastewater facilities. The Project would not require new or increase water supplies. Therefore, the Project would have ***no impact***.

Mitigation Measures: None required.

c. Would the project 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 impacts?

The proposed Project would include the replacement of existing culverts and may require the construction of improved roadside drainage ditches. As described in the Biological Resources Section, all impacts to jurisdictional waters and wetlands, including those resulting from construction of storm water drainage facilities, would be minimized to the maximum degree possible. Compensatory mitigation would be provided for any unavoidable impacts to jurisdictional waters and wetlands, including those related to the construction of storm water drainage facilities. Therefore, this impact would be ***less than significant***.

f and g. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and would the project comply with federal, state, and local statutes and regulations related to solid waste?

Construction activities would generate waste that may require off-site disposal. Solid waste will be disposed of at permitted facilities, such as the Douglas County Disposal service. All solid waste generated during construction of the proposed Project would be collected by the contractor and disposed of in accordance with applicable local, state and federal regulations. The proposed Project will only generate a small amount of solid waste; therefore, operational and construction-related impacts on solid waste services are ***less than significant***.

Mitigation Measures: None required.

3.19 Mandatory Findings of Significance

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporation	Less-Than-Significant Impact	No Impact
19. Mandatory Findings of Significance				
Would the project:				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impacts and Mitigation Measures

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

As described previously in this IS/MND, implementation of mitigation measures identified in the Biological Resources section would ensure that proposed Project implementation would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to

drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of rare or endangered plants or animals. Furthermore, mitigation measures identified in the Cultural Resources section would ensure that the proposed Project would not significantly affect previously undiscovered resources or eliminate important examples of the major periods of California history or prehistory.

Given the existing conditions of the Project area, the fact that potential impacts to biological and cultural resources would primarily occur during construction, and that measures have been identified to reduce these temporary impacts, the overall potential of the proposed Project to degrade the environment is considered ***less than significant with mitigation***.

b. Does the project have impacts that are individually limited, but cumulatively considerable?

Section 15064(h)(1) of CEQA Guidelines states that the lead agency shall consider whether the cumulative impact is significant and the incremental effects of the Project are cumulatively considerable. The lead agency may determine that a Project's incremental contribution would be less-than-cumulatively considerable when one or more of the following occur: 1) the contribution would be rendered less-than-cumulatively considerable through implementation of mitigation measures; 2) the Project would comply with the requirements of a previously approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the Project's cumulative effects; and/or 3) the Project's incremental effects would be so small that the environmental conditions would be essentially the same regardless of whether the Project is implemented.

Past, present, and reasonably foreseeable future Projects in the vicinity of the proposed Project and the potential cumulative effects of these Projects are identified in the environmental review completed for the Alpine County General Plan. The proposed Project is not growth inducing will not result in further development and will comply with all zoning and land use designations. Potential impacts associated with the proposed Project are primarily short-term (construction-related), and shall be mitigated to less-than-significant levels. There will be no long-term effects from the proposed Project. Therefore, the proposed Project's incremental contribution to cumulative conditions would be less-than-cumulatively considerable. The Project would have ***less than significant*** cumulative impact.

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

Potential adverse effects to human beings would occur as a result of construction activities. Potential impacts would include effects to air quality and increases in noise. These impacts would be short-term, and would cease upon completion of the construction process. Potential adverse effects on human beings as a result of the proposed Project are considered ***less than significant***.

4.0 List of Preparers

The Draft IS/MND for the proposed Project were prepared by Area West Environmental, Inc. in cooperation with the County of Alpine. The following individuals contributed to this IS/MND.

County of Alpine

Brian Peters, Community Development Director

Scott Maas, Transportation Program Manager

Quincy Engineering

Jason Jurrens, Senior Engineer

Area West Environmental, Inc.

Aimee Dour-Smith, Senior Environmental Planner

Corinne Munger, Environmental Planner/Biologist

Chrissy Russo, Environmental Planner

Mary Bailey, Cultural Resources Specialist

Sam Price, GIS Specialist

Crawford and Associates, Inc.

Stephen Carter, Senior Geologist

Thomas Ballard, Hydrogeologist

5.0 References

Alpine County. 2017. Alpine County General Plan. Available at: http://alpinecountyca.gov/documentcenter/view/51. Accessed September 26, 2018.

_____. 2018. Alpine County Municipal Code. Available at: https://www.codepublishing.com/CA/AlpineCounty/?AlpineCounty18/AlpineCounty1856.html. Accessed September 26, 2018.

Armin, R.A., D.A. John, W.J. Moore, and J.C. Dohrenwend. 1984. Geologic map of the Markleeville 15 minute quadrangle, Alpine County, California. U.S. Geological Survey, Miscellaneous Investigations Series Map I-1474, scale 1:62,500. Available at: https://ngmdb.usgs.gov/Prodesc/proddesc_13.htm; Accessed September 2018.

California Air Resources Board. 2018. Area Designations Maps/State and National. Available at: http://www.arb.ca.gov/desig/adm/adm.htm#statc. Accessed September 26, 2018.

California Department of Conservation. 2002. "California Geomorphic Provinces. Available at: http://www.conservation.ca.gov/cgs/Documents/cgs-notes/Note_36.pdf. Accessed September 2018.

_____. 2010. California Geologic Survey. Alquist-Priolo Earthquake Fault Zone and Activity Map of California. Available at: http://maps.conservation.ca.gov/cgs/fam/ and : http://www.quake.ca.gov/gmaps/WH/ regulatorymaps.htm. Accessed August 2018.

_____. 2015a. California Geologic Survey Information Warehouse: Landslides. Available online: http://maps.conservation.ca.gov/cgs/informationwarehouse/

_____. 2015b. California Geologic Survey Information Warehouse: Minerals Classification. Available online: http://maps.conservation.ca.gov/cgs/informationwarehouse/

California Department of Fish and Wildlife. 2018. Sensitive Natural Communities Webpage. Available at: https://www.wildlife.ca.gov/data/vegcamp/natural-communities. Accessed September, 24 2018.

California Department of Transportation. 2018. California Scenic Highway Mapping System for Alpine County. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed September 26, 2018.

CalEPA. See California Environmental Protection Agency

CalFire. See California Department of Forestry and Fire Protection.

California Department of Forestry and Fire Protection. 2007. Fire Hazard Severity Zones Maps. Available at: http://www.fire.ca.gov/fire_prevention/fhsz_maps_alpine. Accessed September 2018.

California Environmental Protection Agency. 2018. Cortese List Data Resources. Available at: https://calepa.ca.gov/SiteCleanup/CorteseList/. Accessed September 2018.

Caltrans. See California Department of Transportation

Crawford and Associates. 2017. Initial Site Assessment. Hot Springs Road Reconstruction Project. Prepared for Quincy Engineering. June 2, 2017.

California Department of Transportation. 2018. California's Scenic Highway Mapping System. Available at: <http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/>. Accessed September 2018.

DOC. See California Department of Conservation.

Great Basin Unified Air Pollution Control District. 2018. Online Rules and Regulations. Available at: https://www.gbuapcd.org/PermittingAndRules/RulesAndRegulations/. Accessed September 26, 2018.

Lahonton Regional Water Quality Control Board. 2015. Water Quality Control Plan for the Lahontan Region, North and South Basins. Plan effective March 31, 1995, amendments effective August 1995 through September 10, 2015.

Natural Resource Conservation Services. 2003. Vulnerability to Wind Erosion Map, Vulnerability to Water Erosion Map. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/use/worldsoils/?cid=nrcs142p2_054007. Accessed September 2018.

_____. 2018. Web soil survey for Project Site. Available at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed August 24, 2018.

NRCS. See Natural Resources Conservation Services.

North State Resources. 2016a. Visual Impact Assessment Technical Memorandum for the Hot Springs Road Bridge (31C-0005) Replacement Project, Alpine County, California. March 4, 2016.

_____. 2016b. Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project. Proposed Mitigated Negative Declaration and Initial Study. Prepared for Alpine County. October 2016.

_____. 2016c Archaeological Survey Report for the Hot Springs Road Bridge (31C-0005) Replacement Project. October 2016.

Sawyer, John O., Todd Keeler-Wolf, and Julie M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society.

Sierra Business Council. 2016. Alpine County Energy Action Plan. Available at: http://alpinecountyca.gov/documentcenter/view/1732. Accessed September 2018.

University of California Museum of Paleontology. 2018. UC Museum of Paleontology Specimen Search. Electronic database available at: https://ucmpdb.berkeley.edu/. Accessed September 2018.

U.S. Forest Service. 1986. Toiyabe National Forest Land and Resource Management Plan. Available online: https://www.fs.usda.gov/detail/htnf/landmanagement/planning/?cid=fsm9_026859. Accessed August 2018.

Page Intentionally Blank

Appendix A. Representative Site Photos

Representative Photographs

Photo 1. Hot Springs Road at its intersection with Laramie Street, facing west.

Photo 2. Hot Springs Road at its intersection with Laramie Street, facing east.

Photo 3. Hot Springs Road near the eastern end of the Project, facing west.

Photo 4. Hot Springs Road, facing west.

Photo 5. Hot Springs Road near Charity Valley Trailhead, facing east.

Photo 6. Parking area at Charity Valley Trailhead adjacent to Hot Springs Road, facing northwest.

Representative Photographs

Photo 7. Hot Springs Road through Jefferey pine forest habitat, facing west.

Photo 8. Hot Springs Road west of Grover Hot Springs State Park, facing west.

Photo 9. Entrance to Grover Hot Springs State Park at the western terminus of the Project, facing north.

Photo 10. Example of Hot Springs Road pavement deterioration, facing west.

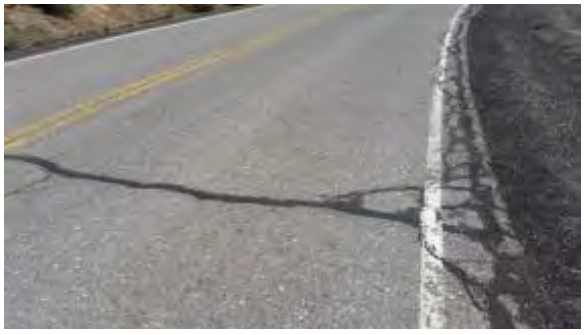


Photo 11. Example of pavement deterioration along Hot Springs Road, facing east.

Photo 12. Example shoulder deterioration; Great Basin mixed scrub, and Jeffery pine forest communities, facing east.

Representative Photographs

Photo 13. Markleeville Water Company water tanks located along Hot Springs Road, facing west.

Photo 14. Existing culvert under Hot Springs Road, facing north.

Photo 15. Shrubby understory and open area among Jeffery pine forest, facing south.

Photo 16. Open clearing among Great Basin mixed scrub, surrounded by Jeffery pine forest habitat, facing north.

Photo 17. Montane riparian wetland habitat along Hot Springs Creek, facing south.

Photo 18. Ephemeral stream in the BSA, facing north.

Representative Photographs

Photo 19. Sample retaining wall aesthetic treatment 1.

Photo 20. Sample retaining wall aesthetic treatment 2.

Photo 21. Sample retaining wall aesthetic treatment 3.

Photo 22. Sample retaining wall aesthetic treatment 4.

Appendix B Biological Resources Evaluation

Biological Study Area

The Alpine Hotsprings Road Reconstruction Project (Project) Biological Study Area (BSA) includes the Project area as well as a 500-foot buffer area. The BSA includes all areas that could potentially be affected by the Project and a buffer to accommodate any changes to Project limits that may occur during Project development and to account for potential indirect effects to sensitive resources.

Natural Communities

The BSA supports 15 community types, comprised of upland types, wetland types, and other waters of the U.S. as shown in Tables B-1 and Figures B-1 through B-8 below.

A description of these community types, including dominant plant species, follows.

Table B-1. Natural Communities

Natural Community	Acres within the BSA	Acres within the Project area
Upland Communities		
Developed	33.166	11.38
Irrigated Pasture	6.005	0.131
Great Basin Mixed Scrub	68.148	1.045
Jeffery Pine Forest	317.135	5.736
Montane Riparian Scrub	0.679	0
Montane Meadow (dry)	3.706	0
Upland Ditch	0.599	0.515
Wetland Communities		
Seasonal Wetland	0.003	0
Montane Riparian Wetland	10.371	0.031
Seep-spring	0.697	0.216
Waters of the U.S.		
Perennial Stream	11.314	0
Intermittent Stream	0.801	0
Intermittent Drainage	0.885	0.017
Ephemeral Stream	2.076	0.137
Wetland Ditch	0.186	0.114
Total	**455.771**	19.322

.

Page Intentionally Blank

HOT SPRINGS ROAD RECONSTRUCTION PROJECT

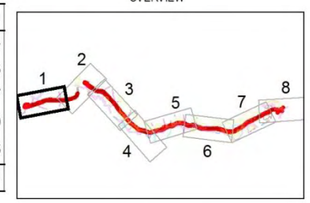
Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Jeffrey Pine Forest
Montane Riparian Wetland
Perennial Stream
Upland Ditch

Page 1 of 8

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771

OVERVIEW



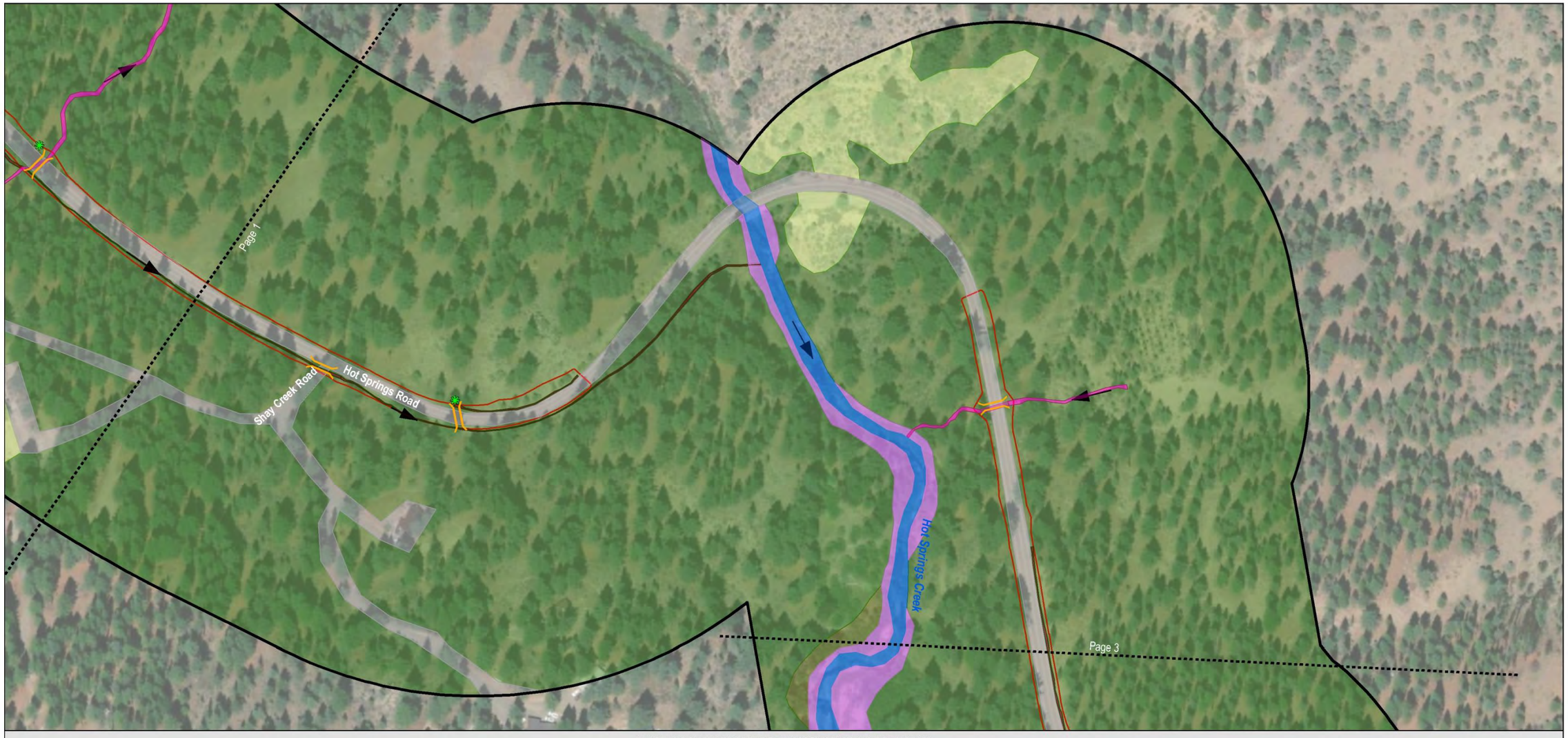
0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-24-18

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-1. Natural Communities in the BSA



HOT SPRINGS ROAD RECONSTRUCTION PROJECT

Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Jeffrey Pine Forest
Montane Riparian Scrub
Montane Riparian Wetland
Perennial Stream
Upland Ditch

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771

OVERVIEW

0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

Page 2 of 8

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-2. Natural Communities in the BSA

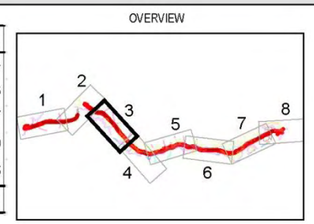
HOT SPRINGS ROAD RECONSTRUCTION PROJECT

Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Intermittent Stream
Jeffrey Pine Forest
Montane Riparian Scrub
Montane Riparian Wetland
Perennial Stream
Upland Ditch

Page 3 of 8

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771



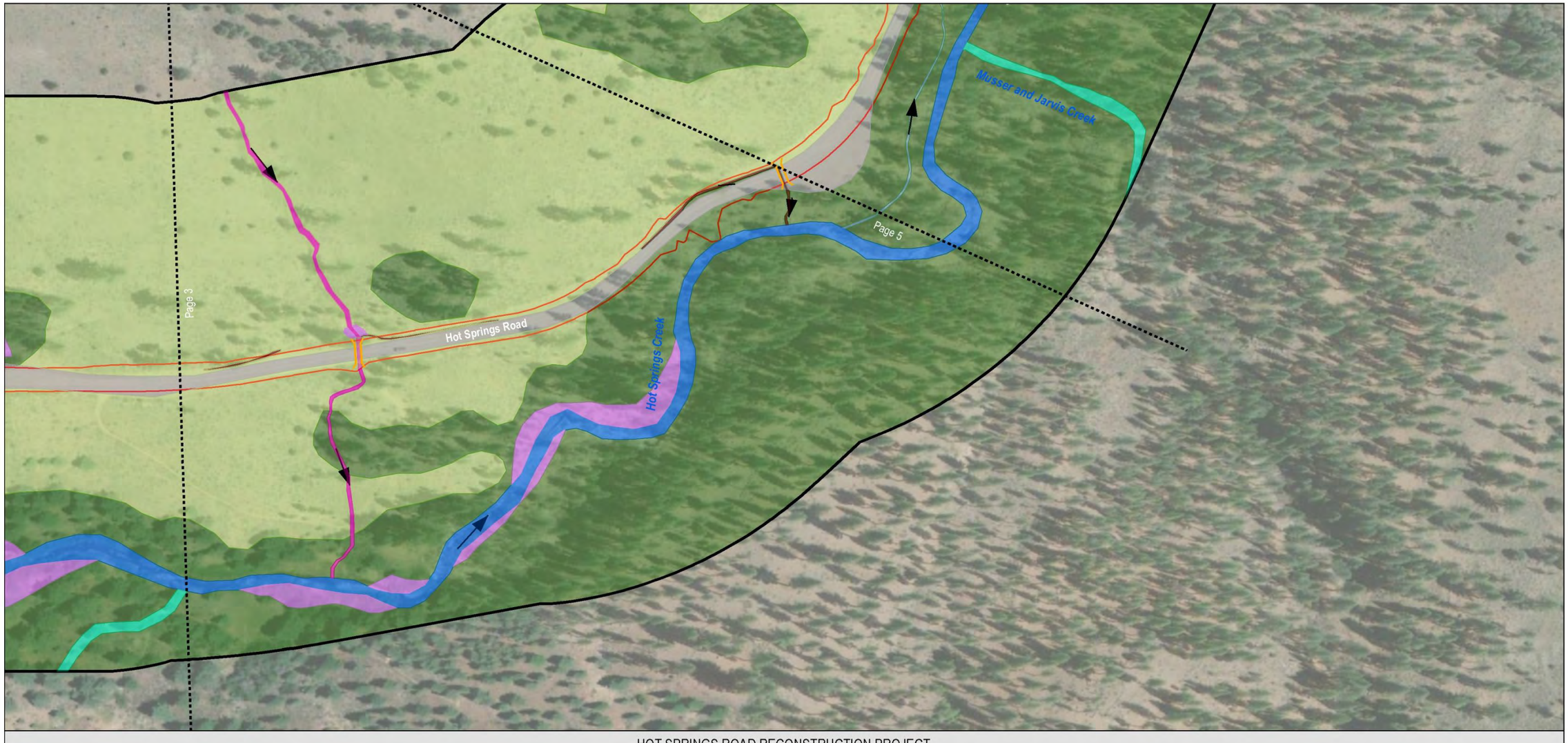
0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-3. Natural Communities in the BSA



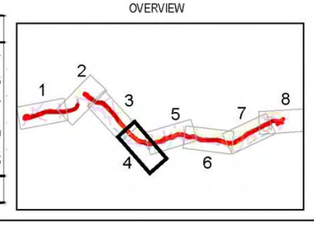
HOT SPRINGS ROAD RECONSTRUCTION PROJECT

Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Intermittent Drainage
Intermittent Stream
Jeffrey Pine Forest
Montane Riparian Wetland
Perennial Stream
Upland Ditch

Page 4 of 8

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771



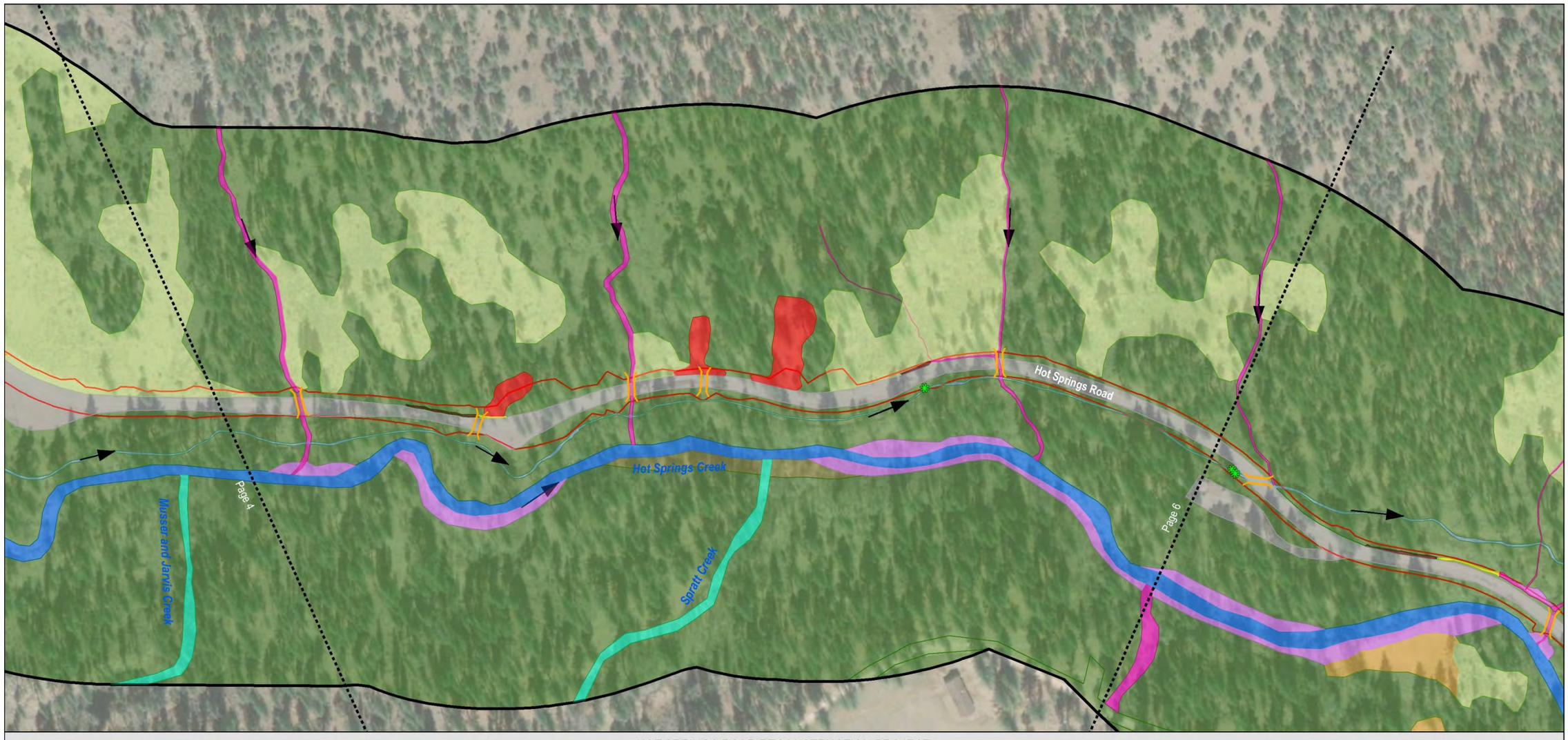
0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

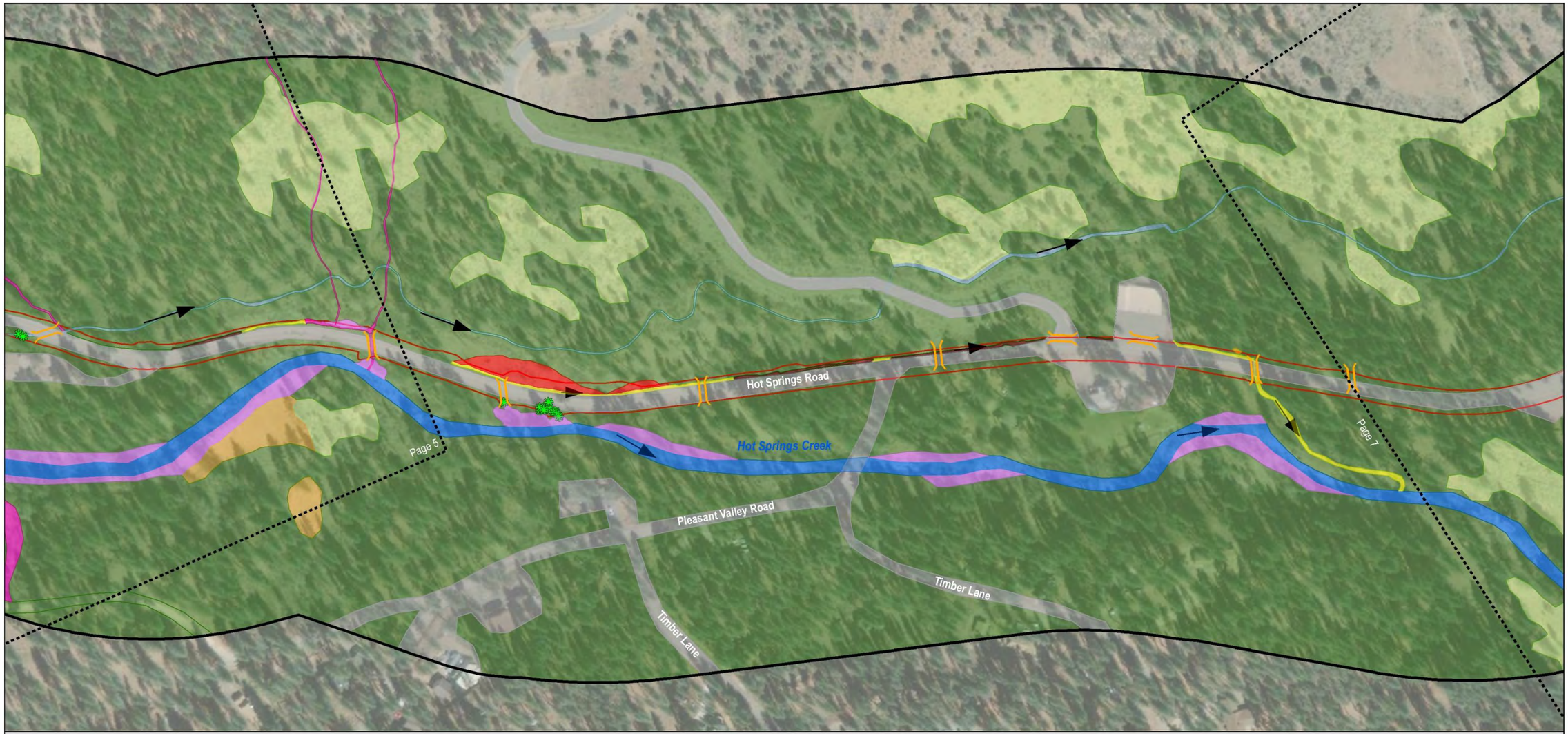
Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-4. Natural Communities in the BSA



Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771

Figure B-5. Natural Communities in the BSA

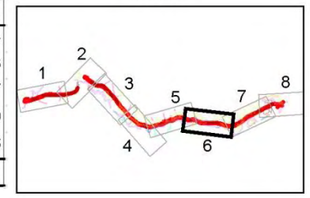


HOT SPRINGS ROAD RECONSTRUCTION PROJECT

Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Intermittent Drainage
Jeffrey Pine Forest
Montane Meadow
Montane Riparian Wetland
Perennial Stream
Seasonal Wetland
Seep-Spring
Upland Ditch
Wetland Ditch

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771



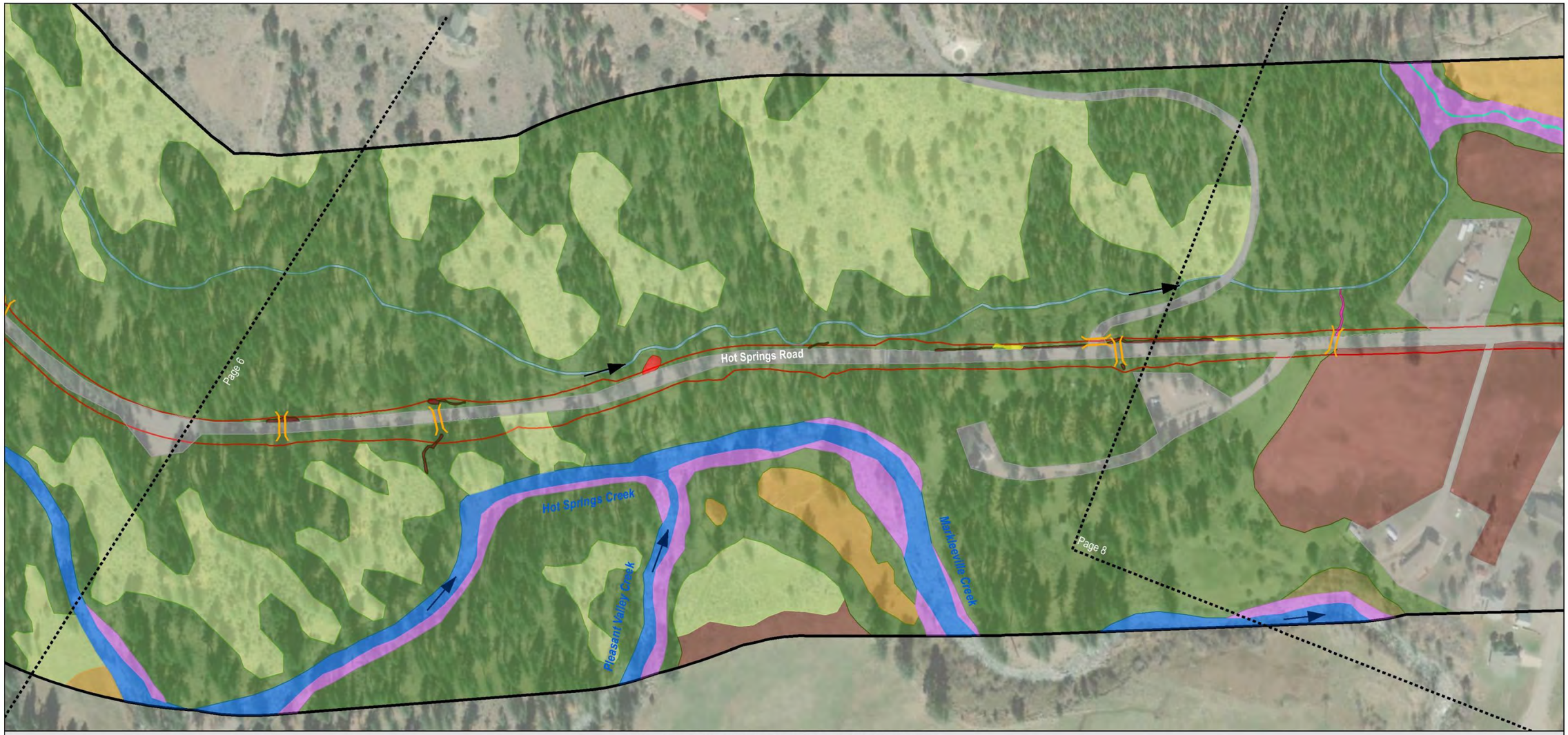
0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-6. Natural Communities in the BSA



HOT SPRINGS ROAD RECONSTRUCTION PROJECT

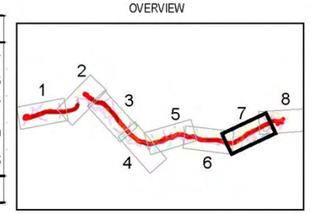
Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Intermittent Drainage
Intermittent Stream
Irrigated Pasture
Jeffrey Pine Forest
Montane Meadow
Montane Riparian Scrub
Montane Riparian Wetland
Perennial Stream
Seep-Spring
Upland Ditch
Wetland Ditch

Page 7 of 8

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771

OVERVIEW



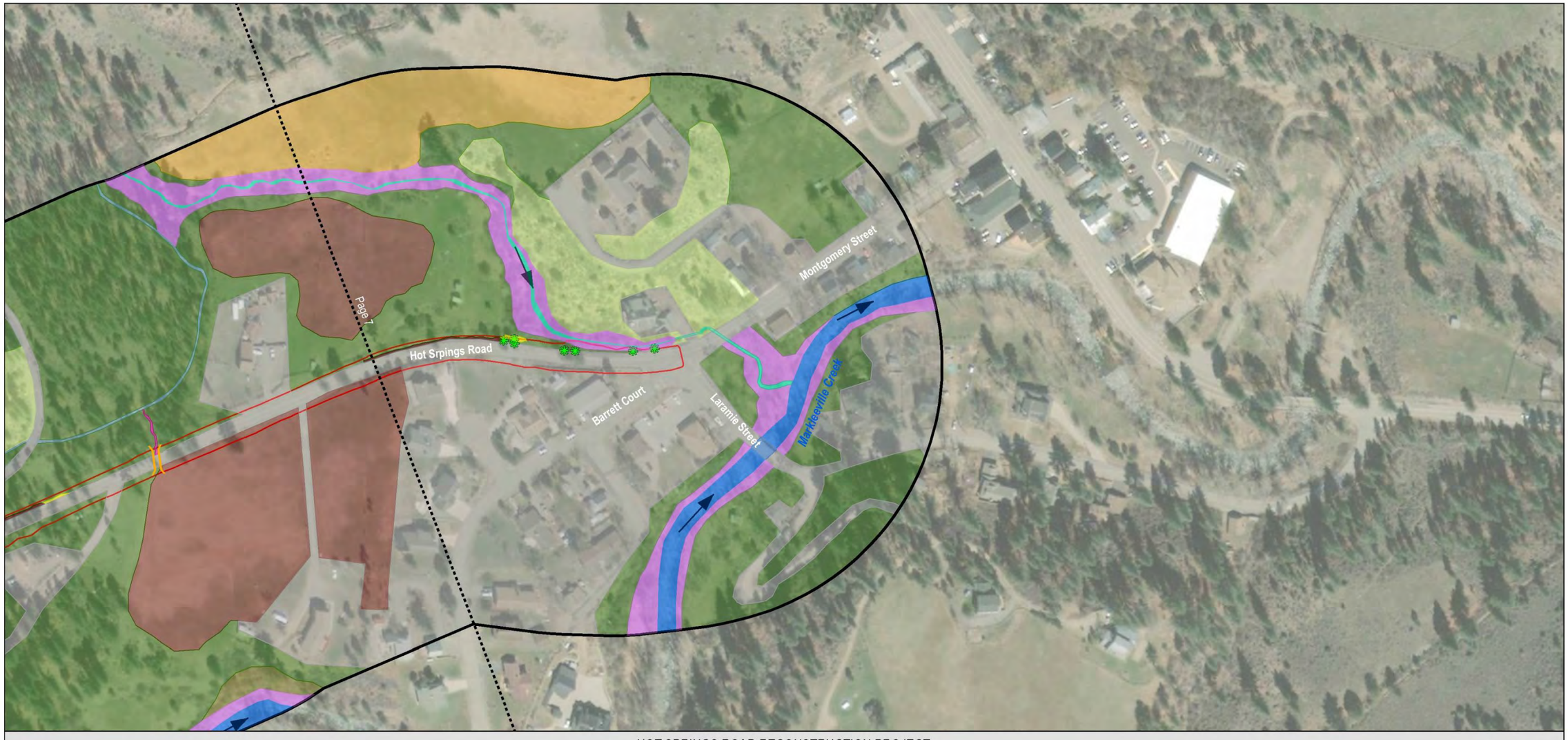
0 100 200 feet
1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-7. Natural Communities in the BSA



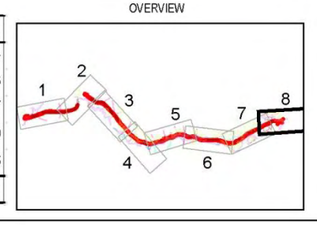
HOT SPRINGS ROAD RECONSTRUCTION PROJECT

Work Area
Biological Study Area (BSA)
Trees within Work Area
Flow Direction
Culverts

Natural Community
Developed
Ephemeral Stream
Great Basin Mixed Scrub
Intermittent Drainage
Intermittent Stream
Irrigated Pasture
Jeffrey Pine Forest
Montane Meadow
Montane Riparian Scrub
Montane Riparian Wetland
Perennial Stream
Upland Ditch
Wetland Ditch

Page 8 of 8

Natural Community	Area (acre)	Natural Community	Area (acre)	Natural Community	Area (acre)
Developed	33.166	Irrigated Pasture	6.005	Perennial Stream	11.314
Ephemeral Stream	2.076	Jeffrey Pine Forest	317.135	Seasonal Wetland	0.003
Great Basin Mixed Scrub	68.148	Montane Meadow	3.706	Seep-Spring	0.697
Intermittent Drainage	0.885	Montane Riparian Scrub	0.679	Upland Ditch	0.599
Intermittent Stream	0.801	Montane Riparian Wetland	10.371	Wetland Ditch	0.186
				Total:	455.771



N

0 100 200 feet

1 inch = 200 feet

Data Source:
- Area West Environmental, Inc. 2017
- ESRI Aerial Imagery, August 3, 2016

Date: 10-23-18

Document Path: Y:\AWE\16-021 Soda Springs\mxd\SS Habitat Mapbook_3.mxd

Figure B-8. Natural Communities in the BSA

DEVELOPED

Developed areas throughout the BSA are situated within upland areas and characterized by anthropogenic features including paved roads, gravel roadside pull-offs, and driveways. Developed areas are continuously disturbed (active roadways) and are primarily un-vegetated. Vegetation, when present, is sparse and consists primarily of scattered upland annual grasses and forbs such as cheatgrass (*Bromus tectorum)*, bulbous blue grass (*Poa bulbosa*), and white sweetclover (*Melilotus albus*). This community is not natural and is not specified in "A Manual of California Vegetation" (Sawyer et al. 2009) or "Terrestrial Natural Communities of California" (Holland 1986). It contains the Urban and Barren California Wildlife Habitat Relationship (CWHR) habitat types (Mayer and Laudenslayer 1988).

IRRIGATED PASTURE

Irrigated Pasture is present in upland areas in the eastern portion of the BSA near Markleeville. This community is similar to the Montane Meadow (Dry), described below, but with slightly more mesic vegetation due to summer irrigation. The community is dominated by low-growing graminoids and other herbaceous plants, with vegetation structure and species composition shaped by cattle grazing. Dominant species include Kentucky blugrass (*Poa pratensis*), clustered field sedge (*Carex praegracilis*), rush blue grass (*Poa secunda ssp. juncifolia*), Nebraska sedge (*Carex nebracensis*), Baltic rush (*Juncus balticus*), and blue ryegrass (*Elymus glaucus*). This natural community represents the great basin grassland community (Holland 1986), the *Elymus glaucus* Herbaceous Alliance (Sawyer et al. 2009), and the Pasture CWHR habitat type (Mayer and Laudenslayer 1988).

GREAT BASIN MIXED SCRUB

This community is generally located on the east of the Sierra Nevada, on steep, rocky, and/or dry slopes, with well drained soils. This community occupies openings in woodland and forested areas and is characterized by a moderately tall, open shrub land. Within the BSA, this habitat is generally dominated by upland perennial shrubs, such as big sagebrush (*Artemisia tridentata* ssp. *tridentata*) and antelope bitterbrush (*Purshia tridentata* var. *tridentata*). Other shrub species contributing to the canopy include yellow rabbitbrush (*Chrysothamnus viscidiflorus*), rubber rabbitbrush (*Ericameria nauseosa*), mountain mahogany (*Cercocarpus ledifolius*), and desert peach (*Prunus andersonii*). The herbaceous layer is sparse and consists of forbs and grasses. Common grasses included western bottle-brush grass (*Elymus elymoides*), beardless wildrye (*Elymus triticoides*), and cheatgrass. Rocky outcrops and steep slopes are found throughout this natural community and are often less vegetated. There are scattered occurrences of Jeffery pine (*Pinus jeffreyi*), single leaf pinyon pine (*Pinus monophylla*), and Utah juniper (*Juniperus osteosperma*). This

community corresponds with the Great Basin Riparian Scrub natural community (Holland 1986), the *Artemisia tridentata-Purshia tridentata* Association (Sawyer et. al 2009), and includes the Bitterbrush and Sagebrush CWHR habitat types (Mayer and Laudenslayer 1988).

JEFFREY PINE FOREST

Forested areas in the BSA are comprised of Jeffrey Pine Forest, which is dominated by Jeffrey pine, but also includes white fir (*Abies concolor*), incense cedar (*Calocedrus decurrens*), single leaf pinyon pine, and Utah juniper. These areas have approximately 40-60% canopy cover, sparse to no herb layer, and numerous pine seedlings. This community is representative of the Jeffrey Pine natural community (Holland 1986), the *Pinus Jeffreyi* Forest Alliance (Sawyer et. al 2009), and the Jeffrey Pine CWHR habitat type (Mayer and Laudenslayer 1988).

MONTANE RIPARIAN SCRUB

This community type is widely scattered above 5,000 feet above mean sea level (amsl), throughout montane parts of the Sierra Nevada mountains (Holland 1986). Generally, it is characterized by open to dense, broad-leafed, winter-deciduous shrubby riparian thickets. Relatively fine-textured alluvium soils along fairly low-gradient reaches of snowmelt fed streams, result in thin scrubby corridors through montane or sub-alpine meadows. With the BSA there are riparian areas along Hot Springs Creek, outside of the ordinary high water mark (OHWM), dominated by black cottonwood *(Populus trichocarpa)*, narrow-leaved willow (*Salix exiga)*, pacific willow (*Salix lasiandra)*, and alder (*Alnus incana tenuifolia*). Dominant sub-shrubs in this community include Douglas' wormwood (*Artemisia douglasiana*). Occasionally upland species, such as big sagebrush and bitterbrush, also occur in this community. The herbaceous layer is sparse in areas with a dense canopy, however scattered herbs and perennial grasses occur in the understory of areas with more open canopies. These often include various sedges, rushes, and perennial grasses. This community corresponds with the montane black cottonwood riparian forest (Holland 1986), includes the *Populus trichocarpa* Riparian Forest Alliance and *Salix lasiandra/Salix exigua* Association (Sawyer et al. 2009), and the Montane Riparian CWHR habitat type (Mayer and Laudenslayer 1988).

MONTANE MEADOW (DRY)

Generally this community type is found scattered throughout upper montane forests of the Sierra Nevada range, occurring at elevations from 5,000 to 9,000 feet amsl (Holland 1986). Montane meadows have a simple structure consisting of dense low growing sedges and other herbaceous plants, with trees and shrubs absent or very sparse. The main growing season for

this community will last from late spring through summer, flowering mostly in the spring and then dormant in the winter. Within the BSA, vegetation in the montane dry meadow natural community is dominated by upland species, with fewer hydrophytic species then that of the adjacent wet meadow due to the increased depth to the water table. Dominants in the drier meadow community include upland plant species, including common yarrow (*Achillea millefolium*), Kentucky blue grass, and blue wild rye. This natural community represents the great basin grassland community (Holland 1986), the *Elymus glaucus* Herbaceous Alliance (Sawyer et al. 2009), and the Perennial Grassland CWHR habitat type (Mayer and Laudenslayer 1988).

UPLAND DITCH

Numerous upland ditches are located throughout the BSA. These ditches are primarily un-vegetated or have scattered patches of annual herbaceous vegetation. These ditches mainly function to move water along roadsides during rain events and snowmelt. For the most part, water was not observed flowing in the roadside ditches during the field visits. Where vegetation occurs within the BSA in the upland ditch community, it occurs sparsely, consisting of upland annual herbs and grasses, such as cheatgrass, bulbous blue grass, and white sweetclover. This community is not natural and was not specified in the "A Manual of California Vegetation" (Sawyer et al. 2009) or "Terrestrial Natural Communities of California" (Holland 1986). It contains the Barren CWHR habitat type (Mayer and Laudenslayer 1988).

SEASONAL WETLAND

There were a few seasonal wetlands along the roadside, consisting of low-lying, moist swales that slowly convey water from surrounding uplands to adjacent drainages. These areas were dominated by hydrophytic vegetation, including Baltic rush (*Juncus balticus),* Nebraska sedge (*Carex nebrascensis*), and pennyroyal (*Mentha pulegium).* This community corresponds with the montane meadow community (Holland 1986), *Juncus balticus* Herbaceous Alliance (Sawyer et al. 2009), and Fresh Emergent Wetland CWHR habitat type (Mayer and Laudenslayer 1988).

MONTANE RIPARIAN WETLAND

With the BSA there are riparian areas along Hot Springs Creek and other drainages. Riparian areas within the OHWM are classified as montane riparian wetland. Riparian areas with similar vegetation, but outside of the OHWM, are classified as montane riparian scrub. The vegetation in this community is similar to that described for Montane Riparian Scrub above.

SEEP-SPRING

There are five seep-springs situated along Hot Springs Road within the existing roadside cut and fill. Seep-spring communities are characterized by perennial hydrophytic herbs, especially sedges and grasses, forming a dense cover. In the BSA, species associated with the seep-spring community include black cottonwood saplings, narrow-leaved willow, greenhead rush (*Juncus chlorocephalus),* toad rush (*Juncus bufonis*), and bulrush (*Typha* sp.). This community corresponds with the montane meadow community (Holland 1986), *Juncus chlorocephalus/Juncus bufonis* Herbaceous Association (Sawyer et al. 2009), and Fresh Emergent Wetland CWHR habitat type (Mayer and Laudenslayer 1988).

WETLAND DITCH

Wetland ditches are located throughout the BSA, some of which function as part of the water distribution and/or roadside drainage system. Some ditches drain to Hot Springs Creek. Wetland ditches along roadside are primarily fed by rain events and snow melt, however they remain saturated long enough to support hydrophytic plants. Within the BSA, these ditches are characterized by a dominance of hydrophytes, including black cottonwood saplings, narrow-leaved willow saplings, greenhead rush, toad rush, bulrush, smooth horsetail (*Equisetum laevigatum*). This community corresponds with the montane meadow community (Holland 1986), *Juncus chlorocephalus / Juncus bufonis* Herbaceous Association (Sawyer et al. 2009), and Fresh Emergent Wetland CWHR habitat type (Mayer and Laudenslayer 1988).

PERENNIAL STREAM

One perennial stream, Hot Springs Creek, is present in the BSA. It is characterized by a waterway exhibiting a well-defined bed and bank that supports riparian wetlands within the active floodplain and riparian scrub along its banks. Perennial streams typically have a hydroperiod that persists throughout the entire year, with the strongest flow during periods of snowmelt runoff and/or periods of precipitation. Perennial streams also flow as a result of groundwater that keeps the stream flowing after snowmelt or precipitation events have passed, and are also fed by smaller ephemeral and intermittent stream systems. Hot Springs Creek has a gravel/cobble substrate and was actively flowing during October 2017 and July 2018 field surveys.

INTERMITTENT STREAM

There are three unnamed intermittent streams present in the BSA. Intermittent streams in the BSA are characterized by small waterways that exhibit a well-defined bed and bank. These streams typically have a hydroperiod that persists throughout most of the year, with the strongest flow during periods of precipitation or snowmelt runoff. Intermittent streams also

flow as a result of groundwater that keeps the stream flowing after snowmelt or precipitation events have passed. Intermittent streams can support wetlands since their hydroperiod is supplied partially by groundwater. Vegetation in intermittent streams may be consistent with the surrounding landscape. Some intermittent streams support riparian wetlands, with meandering low flow channels.

INTERMITTENT DRAINAGE

There is one intermittent drainage, also known as the "Town Ditch" present in the BSA. This feature is a historic-era earthen, water conveyance ditch/diversion channel which originates from the north side of Hot Springs Creek at the confluence with Musser Creek and Jarvis Creek (in the western portion of the BSA) and continues eastward paralleling Hot Springs Creek, eventually draining into Millberry Creek approximately ¼-mile north of the Town of Markleeville. The drainage was constructed in the late 1800's and is still actively used to convey water, primarily in the summer months, for agricultural and ranching purposes. Although human-made, it is not a closed system and receives water run-off from various ephemeral drainages along its length. Although the drainage only supports seasonal flow, multiple segments of its extent support riparian and hydrophytic vegetation, as it does not appear to be regularly maintained. Dominant species along the banks of this intermittent drainage include; black cottonwood, Pacific willow, Nebraska sedge, and Baltic rush.

EPHEMERAL STREAM

There are approximately 16 ephemeral drainages in the BSA, some of which flow into Hot Springs Creek. Ephemeral streams in the BSA are characterized by small waterways that exhibit a scoured channel with a defined bed and bank. These streams typically have a brief hydroperiod and only flow during periods of heavy precipitation or snowmelt runoff. Ephemeral streams typically do not support wetlands since their hydroperiod is brief. Vegetation in ephemeral streams is consistent with the surrounding landscape and usually consists of upland vegetation or is sparsely vegetated.

Common Animal Species

The BSA provides habitat for an assemblage of wildlife species that are commonly found in natural communities throughout the BSA. Common species observed during field surveys included Sierra tree frog (*Pseudacris sierra*), western fence lizard (*Sceloporus occidentalis),* red-tailed hawk (*Buteo jamaicensis),* California quail (*Callipepla californica),* Anna's hummingbird (*Calypte anna),* house finch (*Carpodacus mexicanus),* turkey vulture (*Cathartes aura),* northern flicker (*Colaptes auratus),* and common raven *(Corvus corax*).

Fish and Wildlife Migration Corridors

Stream and riparian corridors, as well as meadow habitats, such as Hot Springs Creek are commonly used by both aquatic and terrestrial wildlife as migration and movement corridors. Mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), black bear (*Ursus americanus*), and song birds are commonly found traversing stream/riparian corridors. Special-status species that could use stream and riparian corridors as a migration or movement corridor include Sierra Nevada mountain beaver (*Aplodontia rufa californica*), ringtail (*Bassariscus astutus*), California wolverine (*Gulo gulo*), and fisher (*Pekania pennant*). Within the BSA, most natural community types, including Jeffrey pine forest and Great Basin mixed scrub, provide migration habitat for terrestrial wildlife and bird species.

Nonnative Invasive Plant Species

Non-native invasive plant species are non-native plants which can spread into native ecosystems. These species may also displace or hybridize with native species, alter biological communities, or alter ecosystem processes. The Cal-IPC provides an overall rating for all plants listed in the Invasive Plant Inventory for California (Cal-IPC 2017). A rating of *high* indicates a species with severe ecological impacts, high rates of dispersal and establishment, and usually widely distributed. A rating of *moderate* indicates a species with substantial and apparent ecological impacts, moderate to high rates of dispersal, establishment dependent on disturbance, and limited to widespread distribution. A rating of *limited* indicates a species with minor ecological impacts, low to moderate rates of invasion, limited distribution, and locally persistent and problematic. In addition to the overall ratings, indications of a significant potential for invading new ecosystems triggers a "Red Alert" designation.

The BSA was surveyed for nonnative invasive plant species listed by Cal-IPC. A total of 11 nonnative invasive plant species listed in the Invasive Plant Inventory (Cal-IPC 2017) were documented within the BSA, thee of which are designated as Red Alert species by Cal-IPC: cheat grass, spotted knapweed (*Centaurea stoebe subsp. micranthos*), and barnyard grass (*Echinochloa crus-galli*). The 11 nonnative invasive plant species identified are widespread and are commonly found throughout the Sierra Nevada. The general location of each of the nonnative invasive plants found in the BSA along with their Cal-IPC rating is provided below in Table B-2.

Table B-2. Nonnative Invasive Plant Species Identified in the BSA

Scientific Name	Rating	Occurrence within the BSA
Bromus tectorum	High	Throughout the BSA
Centaurea stoebe subsp. *micranthos*	High	Roadside areas
Echinochloa crus-galli	High	Roadside areas
Cirsium arvense	Moderate	Roadside areas
Cirsium vulgare	Moderate	Throughout the BSA
Dactylis glomerata	Limited	Roadside areas
Plantago lanceolata	Limited	Roadside areas
Poa pratensis subsp. *pratensis*	Limited	Roadside areas
Rumex crispus	Limited	Roadside areas
Salsola tragus	Limited	Roadside areas
Verbascum thapsus	Limited	Roadside areas

Regional Species and Habitats and Natural Communities of Concern

Alpine County and the Toiyabe National Forest support many special-status plants, wildlife, and unique habitats. Some of the special-status plant and wildlife species identified during pre-field reviews are associated with regional habitats found throughout the BSA, including Great Basin scrub, montane meadow, and Jeffrey Pine Forest habitats. However, some special-status plant and wildlife species are endemic to and/or associated with regional habitats of concern such as freshwater wetlands and riparian habitats.

Natural communities of concern, including waters of the U.S. and state, located within the BSA include Hot Springs Creek and several unnamed streams and drainages and associated aquatic and riparian habitat (areas regulated by state and federal resources agencies).

SPECIAL-STATUS SPECIES

Tables B-3 and B-4 (provided at the end of this report) list the special-status plant, wildlife, and fish species that are known to occur or have the potential to occur in the geographic region. These species were identified based on the California Natural Diversity Database (CNDDB) records search (2018), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (2018), species lists provided by U.S. Fish and Wildlife Service (USFWS) (2018), U.S. Forest Service (USFS) Region 4 Threatened, Endangered and Sensitive Species for the Toiyabe National Forest (2016), and species distribution and habitat requirements data. Figure B-9 shows CNDDB records within approximately 1 mile of the BSA.

For the purpose of this evaluation, special-status species are generally defined as follows:

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA);
- Plants that are candidates for possible future listing as threatened or endangered under the FESA;
- Plants that meet the definitions of rare or endangered species under California Environmental Quality Act (CEQA) (CEQA Guidelines, Section 15380);
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Rare Plan Rank 1 and 2 [CNPS 2018]);
- Plants listed or proposed for listing by the State of California as threatened or endangered under California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5);
- Plants listed under the California Native Plant Protection Act (CFGC 1900 et seq.);
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (CEQA Guidelines);
- Wildlife species that are listed as threatened (FT) or endangered (FE) under FESA;
- Wildlife species that are federally proposed threatened (FPT) or candidates (FC) for possible future listing as threatened or endangered under FESA;
- Wildlife species listed or proposed for listing as endangered (SE) , threatened (ST), or are candidates for possible listing under CESA;
- Wildlife species that are designated as Species of Special Concern (SSC) by CDFW (CNDDB 2018);
- Wildlife species that are designated as Fully Protected (FP) by CDFW (CFGC, Section 3511, 4700, 5050, and 5515);
- Wildlife species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380); and
- Plant and wildlife listed on the USFS Region 4 Threatened, Endangered and Sensitive Species for the Toiyabe National Forest (referred to as Forest Service Sensitive or FSS) (USFS 2016).

Special-status Plants

Based on a review of existing information, including CNDDB, CNPS, USFS Region 4 Sensitive Species for the Toiyabe National Forest, and species distribution and habitat requirements data, a total of 36 special-status plant species were initially identified as potentially occurring in the vicinity of the BSA. The listing status, preferred habitat, and potential for occurrence in the BSA for each of these species are listed in Table B-3 (provided at the end of this chapter). Based on the analysis of elevational ranges, geographic ranges, and suitable habitat present within the BSA, it was determined that 22 of these plant species would be unlikely to occur within the BSA. Potential habitat is present for 14 special-status plant species listed in Table B-3. No special-status plants were observed in the Project area during botanical surveys completed on July 1and 2 2018, which were conducted during the appropriate bloom period for the 14 potentially occurring special-status plant species.

Special-status Wildlife

Based on a review of existing information including a search of the CNDDB, USFWS species lists, USFS Region 4 Threatened, Endangered and Sensitive Species for the Toiyabe National Forest, and species distribution and habitat requirements data, a total of 35 special-status wildlife species were initially identified during the pre-field review as having the potential to occur within the vicinity of the Project. The listing status, preferred habitat, and potential for occurrence in the BSA for each of these species are listed in Table B-4 (provided at the end of this report). Figure B-9 show CNDDB results within 1 mile of the BSA.

Of the 35 special-status wildlife species listed in Table B-4, 10 species would not occur in the BSA or have the potential to be affected by the Project construction because the BSA lacks suitable habitat for the species and/or the BSA is outside the species' known range. These remaining 25 species have potential to occur within the BSA:

- Western bumble bee (*Bombus occidentalis*; FSS)
- Northern goshawk (*Accipiter gentilis*; FSS, SSC)
- Long-eared owl (*Asio otus;* SCC)
- Greater sage-grouse (*Centrocercus urphasianus*; FSS, SSC)
- Vaux's swift (*Chaetura vauxi;* SCC)
- Willow flycatcher (*Empidonax traillii*; FSS, SE)
- Bald eagle (*Haliaeetus leucocephalus*, FD, FSS, SE, FP)

- Mountain quail (*Oreortyx pictus*; FSS)
- White-headed woodpecker (*Picoides albolarvatus*; FSS)
- Purple martin (*Progne subis;* SSC)
- Flammulated owl (*Psiloscops flammeolus*; FSS)
- Yellow warbler (*Setophaga petechia*; SSC)
- Great grey owl (*Strix nebulosa;* FSS; SE)
- Pallid bat (*Antrozous pallidus*; SCC)
- Sierra Nevada mountain beaver (*Aplodontia rufa californica*; SSC)
- Ringtail (*Bassariscus astutas*, FP)
- Pygmy rabbit (*Brachylagus idahoensis;* FSS, SSC)
- Townsend's big-eared bat (*Corynorhinus townsendii;* FSS, SSC)
- Spotted bat (*Euderma maculatum*; FSS, SSC)
- California wolverine (*Gulo gulo*, FPT, FSS, ST, FP)
- Western red bat (*Lasiurus blossevilii*; SCC)
- Western white-tailed jackrabbit (*Lepus townsendii townsendii*; SSC)
- Fisher (*Pekania pennanti*, FPT, FSS, SCT, SSC)
- American badger (*Taxidea taxus*, SSC)
- Sierra Nevada red fox (*Vulpes vulpes necator*, FC, FSS, ST)

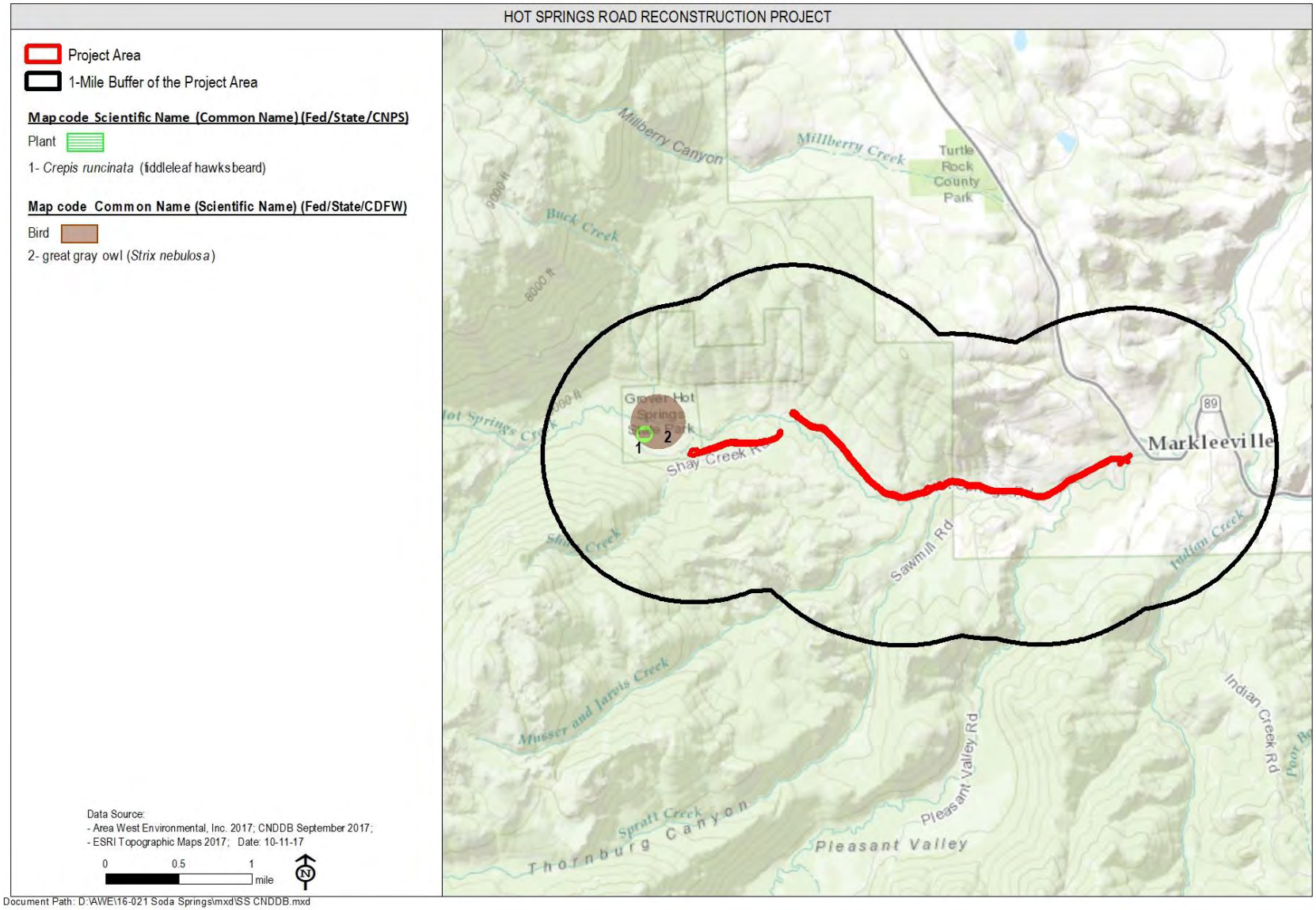
Table B-4 provides the rational for presence or absence and describes the likelihood of occurrence within the BSA for all potentially occurring special-status wildlife species.

Special-status Species Critical Habitat

Based on a review of existing information, the BSA does not fall within designated critical habitat for any federally listed species.

Other Protected Wildlife Species

In addition to the wildlife species listed in Table B-4, the BSA was also evaluated for its potential to support other migratory birds and raptors. Trees and shrubs within and adjacent to the BSA could provide nesting habitat for other migratory birds and raptors.



Document Path: D:\AWE\16-021 Soda Springs\mxd\SS CNDDB.mxd

Figure B-9. CNDDB Occurrences within 1 Mile

Table B-3. Special-status Plant Species with the Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Mountain bent grass *Agrostis humilis*	--/--	--/2B.3	Alpine, Madera, Mono, Mariposa, and Tuolumne counties.	Alpine boulder fields and rock fields, meadows, seeps, and subalpine coniferous forests. Sometimes in carbonate soils. 8,750–9,850 feet amsl.	July - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located below this species elevational range.
Bodie Hills rockcress *Arabis bodiensis*	--/FSS	--/1B.3	Fresno, Inyo, Mono, and Tulare counties.	Alpine boulder and rock fields, Great Basin scrub, pinyon and juniper woodlands, and subalpine coniferous forests. 6,840–11,582 feet amsl.	June - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic range.
Galena Creek rockcress *Arabis rigidissima* var. *demota*	--/FSS	--/1B.2	El Dorado and Placer counties.	Rocky soils in broadleaf upland forests and upper montane coniferous forests. 7,400–8,400 feet amsl.	July - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic range.
Long Valley milkvetch *Astragalus johannis-howellii*	--/FSS	--/1B.2	Mono County.	Sandy loam soils in Great Basin scrub. 6,700-8,300 feet amsl.	June - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic range.
Lavin's milk-vetch *Astragalus oophorus* var. *lavinii*	--/FSS	--/1B.2	Known only in California from Bodie Hills in Mono County.	Great Basin scrub and pinyon and juniper woodlands. 8,038–10,006 feet amsl.	June	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic range.
Upswept moonwort *Botrychium ascendens*	--/FSS	--/2B.3	Alpine, Butte, El Dorado, Fresno, Lassen, Mono, Modoc, Nevada, Placer, Plumas, Tehama, and Tulare counties.	Mesic soils (e.g. meadows and seeps) in lower montane coniferous forest. 3,660–10,500 feet amsl.	July - August	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Scalloped moonwort *Botrychium crenulatum*	--/FSS	--/2B.2	Butte, Colusa, El Dorado, Glenn, Inyo, Lake, Lassen, Los Angles, Mono, Modoc, Nevada, Placer, Plumas, San Bernardino, Shasta, Siskiyou, Tehama, Trinity, Tulare, and Tuolumne counties.	Bogs, fens, meadows, and seeps in lower and upper montane coniferous forests. 4,160–10,760 feet amsl.	June - September	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Slender moonwort *Botrychium lineare*	--/FSS	--/1B.3	Fresno and Mono counties.	Meadows and seeps in upper montane and subalpine coniferous forests; often in disturbed areas. 8,200–13,130 feet amsl.	Year Round	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic and elevational range.
Moosewort *Botrychium tunux*	--/FSS	--/2B.1	Mariposa County.	Alpine boulder and rock fields with calcareous soils. 11,820 feet amsl.	August - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic and elevational range.
Davy's sedge *Carex davyi*	--/FSS	--/1B.	Alpine, Calaveras, El Dorado, Nevada, Placer, Sierra, and Tuolumne counties.	Subalpine and upper montane coniferous forests. 4,920–10,500 feet amsl.	May - August	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Mud sedge *Carex limosa*	--/--	--/2B.2	Butte, El Dorado, Fresno, Lassen, Modoc, Mariposa, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Tuolumne counties.	Bogs, fens, meadows, seeps, marshes, and swamps in lower and upper montane coniferous forests. 3,940–8,860 feet amsl.	May - August	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Liddon's sedge *Carex petasata*	--/--	--/2B.3	Alpine, Inyo, Lassen, Mono, Modoc, Plumas, Shasta, and Sierra counties.	Broad-leafed upland forests, lower montane coniferous forests, meadows, seeps, and pinyon juniper woodlands. 2,624–6,806 feet amsl.	May - July	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Tioga Pass sedge *Carex tiogana*	--/FSS	--/1B.3	Mono and Tuolumne counties.	Meadows and seeps in mesic and lake margins. 10,170–10,830 feet amsl.	July	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic range.
Western valley sedge *Carex vallicola*	--/FSS	--/2B.3	Alpine, Lassen, Mono, and Modoc counties.	Great Basin scrub and, meadows and seeps. 5,004–9,200 feet amsl.	July - August	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. . This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Alpine dusty maidens *Chaenactis douglasii* var. *alpina*	--/FSS	--/2B.3	Alpine, El Dorado, Inyo, Mono, Siskiyou, Tulare and Tuolumne counties.	Granitic soils in alpine boulder and rocky fields. 9,400–11,154 feet amsl.	July - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.
Fell-fields claytonia *Claytonia megarhiza*	--/--	--/2B.3	Alpine, Fresno, Mono, Modoc, Mariposa, Nevada, and Tuolumne counties.	Subalpine coniferous forests and alpine boulder fields in rock crevices. 8,530–11,588 feet amsl.	July - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Great Basin claytonia *Claytonia umbellata*	--/--	--/2B.3	Alpine, Lassen, Mono, Siskiyou, and Trinity counties.	Subalpine coniferous forests. 5,594–11,482 feet amsl.	May - August	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project . This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Fiddleleaf hawksbeard *Crepis runcinata*	--/--	--/2B.2	Alpine, Inyo, Lassen, Mono, Modoc, and Sierra counties.	In mesic and alkaline sites in Mojavean desert scrub and pinyon and juniper woodlands. 4,100–6,480 feet amsl.	May - August	Absent	No potential habitat is present in the BSA. There is a 2010 CNDDB record for this species within 1 mile of the Project. Thousands of individuals were observed in a moist, alkaline meadow fed by run-off from Grover Hot Springs in the western side of the state park (CNDDB 2017; Dean 2011). However, there is no appropriate microhabitat for this species in the BSA.
Subalpine cryptantha *Cryptantha crymophila*	--/FSS	--/1B.3	Alpine, Mono, and Tuolumne counties.	Subalpine coniferous forests with volcanic and rocky sites. 8,530–10,498 feet amsl.	July - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.
Tahoe draba *Draba asterophora* var. *asterophora*	--/FSS	--/1B.2	Alpine, El Dorado, Mono, and Tuolumne counties.	Alpine boulder and rock fields and subalpine coniferous forests. 8,202–11,500 feet amsl.	July - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Bodie Hills draba *Draba quadricostata*	--/FSS	--/1B.2	Mono County.	Clay or rocky soils in Great Basin scrub and pinyon and juniper woodlands. 6,562–9,186 feet amsl.	May - July	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic range.
Scribner's wheat grass *Elymus scribneri*	--/--	--/2B.3	Alpine, Fresno, Inyo, Mono, Tulare, and Tuolumne counties.	Alpine boulder and rock fields. 9,515–13,780 feet amsl.	July - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.
Marsh willowherb *Epilobium palustre*	--/--	--/2B.3	Known only from Grass Lake in El Dorado County and Willow Lake in Plumas County.	Mesic soils in bogs, fens, meadows, and seeps. 6,396–7,872 feet amsl.	July - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species geographic range.
Jack's wild buckwheat *Eriogonum luteolum* var. *saltuarium*	--/--	--/1B.2	Alpine and Tuolumne counties.	Sandy and granitic soils in Great Basin scrub and upper montane conifer woodlands. 5,578–7,875 feet amsl.	July - September	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Carson Valley monkeyflower *Erythranthe carsonensis*	--/--	--/1B.1	In California, only known from the vicinity of Fredricksburg in Alpine County.	Great Basin scrub openings in granitic soil. Approximately 5,500 feet amsl.	April - June	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. The BSA is located outside of this species geographic range.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Blandow's bog moss *Helodium blandowii*	--/--	--/2B.3	Mono, Siskiyou, and Tulare counties.	Wet meadows, fens, and seeps in subalpine coniferous forests. 6,500–9,000 feet amsl.	Year Round	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Three-ranked hump moss *Meesia triquetra*	--/FSS	--/4.2	Alpine, Butte, El Dorado, Fresno, Humboldt, Lassen, Madera, Mariposa, Nevada, Placer, Plumas, Riverside, Shasta, Sierra, Siskiyou, Tehama, and Tulare counties.	On soils in bogs and fens, meadows and seeps, subalpine coniferous forest, and upper montane coniferous forests. 4,300 – 9,700 feet amsl.	July	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Whitebark pine *Pinus albicaulis*	--/FSS	--/--	High elevation sites at all counties within the Sierra Nevada and Cascade mountain ranges.	Subalpine red fir and lodgepole pine forests. Above 6,500 feet amsl.	Year Round	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present and BSA is located outside of this species elevational range.
Robbins' pondweed *Potamogeton robbinsii*	--/--	--/2B.3	Alpine, El Dorado, Fresno, Inyo, Lassen, Madera, Mariposa, Nevada, Modoc, Plumas, Sierra, Siskiyou, and Tuolumne counties.	Deep freshwater marshes and swamps. 5,020–10,828 feet amsl.	July - August	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present.
Alder buckthorn *Rhamnus alnifolia*	--/--	--/2B.2	Alpine, Lassen, Nevada, Placer, Plumas, and Sierra counties.	Lower montane coniferous forests, meadows, seeps, riparian scrub, and upper montane coniferous forests. 4,495–6,990 feet amsl.	May - July	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Water bulrush *Schoenoplectus subterminalis*	--/--	--/2B.3	Butte, Del Norte, El Dorado, Humboldt, Lassen, Nevada, Plumas, Shasta, Tehama, Trinity, and Tuolumne counties.	Bogs, fens, and montane lake margins of marshes and swamps. 2,460–7,380 feet amsl.	June - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. No appropriate microhabitat is present.
Cut-leaf checkerbloom *Sidalcea multifida*	--/--	--/2B.3	Alpine, Inyo, Mono, and Tulare counties.	Great Basin scrub, lower montane coniferous forests, meadows and seeps, pinyon and juniper woodlands. 5,740–9,184 feet amsl.	May - September	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species was not observed during botanical surveys conducted in the Project area during this species identification period.
Mono ragwort *Senecio pattersonensis*	--/FSS	--/1B.3	Mono County.	Alpine boulder and rock fields. 9,514–12,204 feet amsl.	July - September	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic and elevational range.
Masonic Mountain jewelflower *Streptanthus oliganthus*	--/FSS	--/1B.2	Inyo, Mono, and Tuolumne counties.	Volcanic or granitic rocky soils in pinyon and juniper woodland.	June - July	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic range.
Cream-flowered bladderwort *Utricularia ochroleuca*	--/--	--/2B.2	El Dorado, Modoc, and Plumas counties.	Mesic meadows, seeps, lake margins along marshes and swamps. 4,706–4,723 feet amsl.	June - July	Absent	No potential habitat is present and there are no CNDDB occurrences within 1 mile of the Project. BSA is located outside of this species geographic range.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Association	Identification Period	Species Present/ Absent	Rationale
	Federal /USFS	State/ CNPS					
Golden violet *Viola purpurea* ssp. *aurea*	--/--	--/2B.2	Alpine, Kern, Lassen, Los Angeles, Mono, San Bernardino, San Diego, and Sierra counties.	Sandy sites in Great Basin scrub and pinyon juniper woodlands. 3,280–9,186 feet amsl.	April - June	Absent	Potential habitat is present in the BSA; however there are no CNDDB occurrences within 1 mile of the Project. This species is a perennial and would still be visible during July surveys, if present. However, this species was not observed during botanical surveys conducted in the Project area during this species identification period.

[1]Status explanations:

-- = no listing.

Federal

FSS = USFS Region 4 Threatened, Endangered and Sensitive Species for the Toiyabe National Forest (2016)

State

California Native Plant Society Rare Plant Rank (formerly known as CNPS lists)

1B = Rank 1B species: rare, threatened, or endangered in California and elsewhere.
2B = Rank 2B species: rare, threatened, or endangered in California but more common elsewhere.
0.1 = Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat).
0.2 = Moderately threatened in California (20%-80% occurrences threatened/moderate degree and immediacy of threat).
0.3 = Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

Source: CNPS 2018; CNDDB 2018; USFWS 2018, USFS 2016, Dean 2011, Baggs et al 2014, and Calflora 2017.

Table B-4. Special-status Wildlife Species with the Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Invertebrates						
Western bumble bee *Bombus occidentalis*	FSS	--	Historically found throughout the western United States and Canada.	Various habitats with abundant flowering vegetation from spring through fall.	Habitat Present	Potential nesting and foraging habitat is present in the spring through fall in habitats in the BSA with flowering vegetation. Closest CNDDB record is approximately 5 miles northwest of the Project.
Amphibians						
Southern long-toed salamander *Ambystoma macrodactylum sigillatum*	--/--	SSC	Occurs from 0 – 9,200 feet amsl, from Tuolumne County in the Sierra Nevada, north to Modoc and Lassen counties in the Cascade range.	Breeds in temporary ponds formed from rain and snowmelt associated with ponderosa pine, montane mixed conifer, montane riparian, and wet meadows. Populations at higher elevations may require year round water and develop more slowly. Adult life is mostly subterranean. Seasonal movements associated with breeding are usually up to 3,300 feet amsl.	Habitat Absent	No potential habitat is present. There are no ponds or wet meadows in the BSA that could support this species. Overall, the BSA is generally too dry to support breeding amphibians. Closest record is a 2003 record approximately 3.6 miles west of the Project area, in Forestdale Creek.
Yosemite toad *Anaxyrus canorus*	FT/FSS	SSC	Occurs in the central and southern Sierra Nevada from El Dorado County to Fresno County from 6,400 – 11,320 feet amsl.	Wet meadows and seasonal snowmelt ponds, shallow lake margins in montane wet meadows, lodgepole pine, and subalpine conifer habitats. Adults may use mammal burrows or other features with moist microclimates for cover. Seasonal movements are approximately 0.78 mile from aquatic habitat (USFWS 2013).	Habitat Absent	No potential habitat is present. The BSA is below the species elevational range and north of its known geographic range. Additionally, there are no ponds or wet meadows that could support this species. Overall, the BSA is generally too dry to support breeding amphibians. The nearest CNDDB record is from 1955 in Charity Creek, a tributary to Hot Springs Creek, approximately 2.9 miles southeast of the Project. The nearest non-historical record is a 2009 record at Upper Blue Lake 7.3 miles southwest of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Columbia spotted frog *Rana luteiventris*	--/FSS	--	In California, historically found on the east side of the Warner Mountains in the extreme northeast corner of the state.	Streams, lakes, ponds in montane riparian, subalpine conifer and wet meadow habitats to arid grassland and brushlands. Tadpoles metamorphose in one season.	Habitat Absent	No potential habitat for this species is present in the BSA. The BSA is outside of this species known geographic range and there are no CNDDB occurrences within 1 mile of the Project.
Sierra Nevada yellow-legged frog *Rana sierrae*	FE/FSS	ST	Occurs in the Sierra Nevada from Plumas County to Fresno County from 4,500–12,000 feet amsl.	Streams, lakes, ponds in montane riparian, lodgepole pine, subalpine conifer and wet meadow habitats. Tadpoles may require two over-wintering periods to complete aquatic development which requires overwintering bodies of water that will not freeze during the winter (not less than 5.6 feet). Adults typically do not move more than 82 feet from aquatic habitat, but may move up to 984 feet between lakes in high alpine landscapes (USFWS 2013).	Habitat Absent	No potential habitat is present. Lentic water features that would provide breeding habitat for the species are absent from the BSA. Hot Springs Creek in the BSA is too fast flowing for this species. Closest record is a 1956 record approximately 4.5 miles southwest of the Project area, in Forestdale Creek.
Birds						
Northern goshawk *Accipiter gentilis*	--/FSS	SSC	Permanent resident on the Klamath and Cascade Ranges, on the north Coast Ranges from Del Norte County to Mendocino County, and in the Sierra Nevada south to Kern County; winters in Modoc, Lassen, Mono, and northern Inyo counties; rare in southern California.	Nests and roosts in older stands of red fir, Jeffrey pine, and lodgepole pine forests; hunts in forests and in forest clearings and meadows.	Habitat Present	Potential nesting, roosting, and hunting habitat is present in the BSA. Large stick nests were not observed in the BSA. There are no CNDDB occurrences within 1 mile of the Project.
Long-eared owl *Asio otus*	--/--	SSC	Modoc, San Bernardino, Inyo, Lassen, Riverside, San Mateo, Santa Clara, Mono, Orange, Nevada, Yuba, Kern, San Diego, San Benito, Inyo, and Fresno counties.	May occur in dense riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats; also found in dense conifer stands at higher elevations. Riparian bottomlands grown to tall willows & cottonwoods; also, belts of live oak paralleling stream courses.	Habitat Present	Riparian trees and shrubs along Hot Springs Creek provide potential nesting habitat for this species. There are no CNDDB occurrences within 1 mile of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Greater sage-grouse *Centrocercus urophasianus*	--/FSS	SSC	In California, it occurs in the Great Basin along the eastern edge of the state.	Requires open areas with sagebrush communities for courtship, nesting, and foraging. Requires sagebrush throughout the year. Breeds from February – August, with peak strutting from March – April. May also forage in meadows.	Habitat Present	Potential nesting habitat is present in the BSA. Great Basin mixed scrub within the BSA is generally low growing and open, which could support this species. There are no CNDDB occurrences within 1 mile of the Project.
Vaux's swift *Chaetura vauxi*	--/--	SSC	Widespread in suitable habitat throughout the state	Roost and nest in natural cavities with vertical entranceways, such as snags or hollow trees. Nests in snags in coniferous forests or, occasionally, in chimneys; forages aerially over woodlands, lakes, and rivers, where flying insects are abundant. Fairly common migrant throughout most of the state. Nest in forests, either coniferous or mixed, but primarily old growth with snags for nesting and roosting.	Habitat Present	Tree snags suitable for nesting are present in the BSA. There are no CNDDB occurrences within 1 mile of the Project.
Black swift *Cypseloides niger*	--/--	SSC	In Monterey County, a small population has been known from the Big Sur coast and adjacent Santa Lucia Mountains.	Nests in moist crevice or cave in sea cliffs or on cliffs adjacent to waterfalls.	Habitat Absent	No potential habitat for this species is present in the BSA. There are no CNDDB occurrences within 1 mile of the Project.
Willow flycatcher *Empidonax traillii*	--/FSS	SE	Rare to locally uncommon summer resident in wet meadows and montane riparian habitats from 2,000 – 8,000 feet amsl and a common spring (mid-May to early June) and fall (mid-August to early September) migrant at lower elevations, primarily in riparian habitats, exclusive of the North coast.	Breeding habitat is typically moist meadows with perennial streams; lowland riparian woodlands dominated by willows, primarily in tree form, and cottonwoods; or smaller spring-fed or boggy areas with willow or alders.	Habitat Present	Potential nesting habitat is present in riparian habitats in and near the BSA. The closest occurrence is located approximately 4 miles southwest of the Project (CNDDB 2017).

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
American peregrine falcon *Falco peregrinus anatum*	FD/FSS	FD, FP	Permanent resident on the north and south Coast Ranges; may summer in the Sierra Nevada winters in the Central Valley, Transverse and Peninsular Ranges, and the plains east of the Cascade Range.	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large populations of other bird species.	Habitat Absent	No potential nesting habitat for this species is present in the BSA. Cliff ledges along the East Fork Carson River with potential to support this species are located outside of the BSA. There are no CNDDB occurrences within 1 mile of the Project.
Bald eagle *Haliaeetus leucocephalus*	FD/FSS	SE, FP	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino counties and the Lake Tahoe Basin. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County.	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean. Prefers ponderosa pine with open branch work in stands with less than 40% canopy.	Habitat Present	Potential nesting habitat is present in the BSA in the eastern portion of the BSA near Markleeville, which is within 1 mile of potential foraging habitat in the East Fork Carson River. Large stick nests were not observed in the BSA. The closest CNDDB occurrence is located at Heenan Lake, approximately 7 miles southeast of the Project (CNDDB 2017).
Mountain quail *Oreortyx pictus*	--/FSS	--	Found throughout montane habitats in California.	Found in shrub stands of coniferous and deciduous forest habitats, including chaparral. Typically nests on the ground near the base of a tree, rocks or other structures.	Habitat Present	Potential nesting habitat is present in the BSA. This species could nest on the ground throughout the BSA. This species was not observed during surveys and CNDDB does not track this species.
White-headed woodpecker *Picoides albolarvatus*	--/FSS	--	Occurs in the Sierra Nevada, Cascade, Klamath, Transverse and Peninsular Ranges and the Warner Mountains.	A year-round resident in montane coniferous forests with canopy closure between 40–70%. Nests in open conifer habitats in snags or tree stumps at least 2 feet in diameter.	Habitat Present	Potential habitat is present in the BSA. This species was not observed during surveys and CNDDB does not track this species.
Three-toed woodpecker *Picoides tridactylus (=dorsalis)*	--/FSS	--	Occurs in the Great Basin and north into Canada. Does not occur in California.	Found in boreal and montane coniferous forests. Uses disturbed forests with decaying or dying trees and tree snags.	Habitat Absent	No potential habitat for this species is present in the BSA. The BSA is outside of this species known geographic range. CNDDB does not track this species.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Purple martin *Progne subis*	--/--	SSC	Throughout the Sierra Nevada and in coastal areas from Del Norte County south to Santa Barbara County; rare in southern California.	Breeding habitat includes old-growth, multi-layered, open forest and woodland with snags; forages over riparian areas, forest, and woodlands.	Habitat Present	Potential habitat, including tree snags suitable for nesting, is present. There are no CNDDB occurrences within 1 mile of the Project.
Flammulated owl *Psiloscops flammeolus*	--/FSS	--	Seasonal resident in the Sierra Nevada. Breeds in the Sierra Nevada, North Coast, Klamath Ranges and southern California.	Breeds in ponderosa pine and red fir forests between 6,000 – 10,000 feet amsl. Nests in woodpecker cavity holes. Occasionally nests in a burrow on the ground.	Habitat Present	Potential nesting habitat is present in the BSA in tree cavities or rotting trees. No cavity or ground nests were detected in the BSA. There are no CNDDB occurrences within 1 mile of the Project.
Yellow warbler *Setophaga petechia*	--/--	SSC	Widespread distribution in California, excluding the Central Valley.	Breeds in riparian woodlands, particularly those dominated by willows and cottonwoods, at elevations up to 8,000 feet amsl in the Sierra Nevada.	Habitat Present	Potential nesting habitat for this species is present in riparian trees and shrubs along Hot Springs Creek. There are no CNDDB occurrences within 1 mile of the Project.
Great grey owl *Strix nebulosa*	--/FSS	SE	Permanent resident in the Sierra Nevada in portions of Tuolumne, Mariposa, Madera, and Fresno counties from 4,500 – 7,500 feet amsl.	Associated with old-growth coniferous forests bordering meadows: red fir, Jeffrey pine, and lodge pole pine dominates. Nesting typically occurs in broken top snags of dead trees, usually 24 inch diameter at breast height for nesting. Does not build nests, but may use old hawk or eagle nests. Forages in meadows.	Habitat Present	Potential habitat is present in the BSA. Large meadows surrounded by old-growth forest are in the vicinity of the BSA. There is a 1979 CNDDB record for this species within 1 mile of the BSA at a large meadow in Grover Hot Springs State Park.
California spotted owl *Strix occidentalis occidentalis*	--/FSS	SSC	Sierra Nevada from Lassen County south to northern Kern County; occurs in localized areas of the Transverse and Peninsular Ranges of southern California.	Mature forests with permanent water and suitable nesting trees and snags.	Habitat Absent	Great grey owl is known to occur in the BSA, which typically excludes California spotted owl from the area. There are no CNDDB occurrences within 1 mile of the Project.
Mammals						
Pallid bat *Antrozous pallidus*	--/--	SSC	Low elevations throughout California.	Forages over many habitats; roosts in buildings, rocky outcrops and rocky crevices in mines and caves. Most common in open and dry habitats with rocky areas for roosting sites.	Habitat Present	There may be roosting habitat within or in the vicinity of the BSA. Species could potential forage or roost in the BSA. There are no CNDDB occurrences located within 1 mile of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Sierra Nevada mountain beaver *Aplodontia rufa californica*	--/--	SSC	Occurs in the Sierra Nevada mountain range in scattered populations. Locally uncommon.	Typically occurs in montane riparian habitat. Requires friable soil for burrowing and a cool and moist microclimate near water. Prefers areas with a dense understory of vegetation for cover.	Habitat Present	Potential habitat is present in the BSA in riparian areas with friable soils. There are no CNDDB occurrences within 1 mile of the Project.
Ringtail *Bassariscus astutas*	--/--	FP	Occurs throughout a majority of California, including the Sierra Nevada, Coast Ranges, and the Central Valley.	Riparian forests, chaparral, scrub, oak woodlands, and rocky hillsides with crevices and tree hollows 3 inches in diameter or greater. Avoids open space and moves from tree to tree or along structures. Omnivorous and will feed on berries such as toyon or mistletoe leaves and berries and will vary depending on the seasons and food availability.	Habitat Present	Potential denning habitat is present in tree snags in the BSA and nearby rocky outcrops. This species is not tracked by the CNDDB.
Pygmy rabbit *Brachylagus idahoensis*	--/FSS	SSC	Uncommon resident in Great Basin scrub and woodland habitats.	Typically occurs in Great Basin mixed scrub and Pinyon-juniper woodland habitats. Requires dense stands of brush.	Habitat Present	Brushy habitat in the BSA provides potential habitat. There are no CNDDB occurrences within 1 mile of the Project.
Townsend's big-eared bat *Corynorhinus townsendii*	--/FSS	SSC	Klamath Mountains, Cascades, Sierra Nevada, Central Valley, Transverse and Peninsular Ranges, Great Basin, and the Mojave and Sonora Deserts.	Rocky areas with caves in mesic habitats, excluding subalpine and alpine habitats. Uses caves, mines, tunnels, buildings and other structures for roosting. Gleans insects from foliage. Very sensitive to human disturbance.	Habitat Present	There may be roosting habitat within or in the vicinity of the BSA. Species could potential forage or roost in the BSA. This species is very sensitive to human disturbance, therefore it has a low likelihood of being present in the BSA along a busy road. There are no CNDDB occurrences located within 1 mile of the Project.
Spotted bat *Euderma maculatum*	--/FSS	SSC	Occurs throughout eastern and southern California, the central Sierra Nevada, and the Sierra Nevada foothills bordering the San Joaquin Valley. Occurs from below sea level up to 10,000 feet amsl.	Roosts in rock cracks and crevices, usually found in cliffs, but also uses caves, and buildings. Females may favor ponderosa pine forests during reproduction. Usually a solitary rooster. One of the rarest mammals in North America.	Habitat Present	Although unlikely due to its rarity, this species could potential roost or forage in the BSA. There are no CNDDB occurrences within 1 mile of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
California wolverine *Gulo gulo*	FPT/FSS	ST, FP	A scarce resident of the North Coast mountain ranges and the Sierra Nevada. Sightings are known from Del Norte, Trinity counties and east to Siskiyou and Shasta counties and south to Tulare County.	Habitat is poorly known for wolverine. In the Sierra Nevada, wolverine is associated with mixed conifer, red fir, and lodgepole habitats from 4,300 – 7,300 feet amsl in the northern Sierra Nevada and 6,400 – 10,800 feet amsl in the southern Sierra Nevada. May also occur in subalpine conifer, alpine dwarf-shrub, wet meadow, and montane riparian habitats. Dens in caves, cliffs, hollow logs, cavities in the ground, under rocks. May also dig dens in the snow and use old beaver lodges.	Habitat Present	Potential habitat is present in the BSA and the BSA is within the suspected range of this species. However, wolverine is a very rare and reclusive species and is unlikely to be present in the BSA along a busy road. This species is unlikely to den in the BSA and is expected to avoid any construction that may cause a disturbance. There are no CNDDB occurrences located within 1 mile of the Project.
Western red bat *Lasiurus blossevillii*	--/--	SSC	Breeding range extends from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts. Winter range includes western lowlands and coastal regions south of San Francisco Bay.	Prefers sites with a mosaic of habitats that includes trees with sufficiently-sized cavities for roosting and open areas for nocturnal foraging. Strongly associated with riparian habitats. Roost primarily in trees, but occasionally in shrubs often in habitats adjacent to streams or meadows.	Habitat Present	Potential for roosting or foraging in most habitats in the BSA.
Western white-tailed jackrabbit *Lepus townsendii townsendii*	--/--	SSC	Occurs along the Sierra Nevada crest and eastern slope from the Oregon border south to Inyo and Tulare counties. Is uncommon to rare year-round resident, but may move to lower elevations during the winter.	Uses sagebrush, subalpine conifer, juniper, alpine dwarf-shrub and perennial grassland habitats. Takes cover in shallow depressions under brush.	Habitat Present	Forest, scrub, and grassland habitats in the BSA represent potential habitat for this species. There are no CNDDB occurrences located within 1 mile of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Sierra Nevada bighorn sheep *Ovis canadensis sierrae (= californiana)*	FE/FSS	SE, FP	Occurs along the Sierra Nevada from the eastern boundary of Yosemite National Park south to Owens Valley.	Uses rocky steep terrain for escape, bedding, and lamping. Forage in open areas near steep terrain. Rely on water sources such as springs, depressions and man-made sources. Prefer low growing vegetation for foraging.	Habitat Absent	No potential habitat is present in the BSA. The BSA is outside of this species current and historical geographic range. Historically, this species occurred as far north as Sonora Pass, which is south of the BSA. There are no CNDDB occurrences located within 1 mile of the Project.
Fisher (West Coast DPS) *Pekania pennanti*	FPT/FSS	SCT, SSC	Occurs in the Sierra Nevada, Cascade Mountains and the Klamath Mountains. It is uncommon where it occurs.	Occurs in large tree stages of coniferous forests and deciduous riparian forests with dense canopy closure. Use cavities in large trees, snags, brush piles and rocky areas.	Habitat Present	Potential habitat is present in the BSA in areas with closed canopy forests. This species could potentially den, forage, or travel through the BSA. There are no CNDDB occurrences located within 1 mile of the Project.
American badger *Taxidea taxus*	--/--	SSC	Occurs throughout California where habitat is present, except in northwestern California.	Permanent resident of most open stage shrub, forest and herbaceous habitats with friable soils for digging burrows. Badgers feed primarily on fossorial species, such as burrowing mammals like pocket gophers and ground squirrels.	Habitat Present	Potential habitat is present in the BSA in open areas with friable soils. There are no CNDDB occurrences located within 1 mile of the BSA.
Sierra Nevada red fox *Vulpes vulpes necator*	FC/FSS	ST	Throughout high elevations of the Sierra Nevada from Tulare County northward to Sierra County, and from Mount Shasta and Lassen Peak westward to the Trinity Mountains in Trinity County. Elevational range is generally between 4,000 – 12,000 feet amsl.	High elevation barren, conifer, and shrub habitats; montane meadows; subalpine woodlands and fell-fields. May hunt in forest openings, meadows, and barren rocky areas. Dens are likely to be in talus slopes and rock slides; may use earthen dens, or boulder piles.	Habitat Present	Potential habitat is present in the BSA. Dispersal and hunting habitat is present. Suitable denning habitat was not observed during surveys, but denning habitat could be present adjacent to the BSA in rocky areas. There are no CNDDB occurrences located within 1 mile of the Project. The nearest CNDDB record is a 1973 observation approximately 3.5 miles southwest of the Project.

Common and Scientific Name	Legal Status[1]		Distribution	Habitat Requirements	Habitat Present/ Absent[2]	Rationale
	Federal/ USFS	State				
Fish						
Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*	FT/--	--	Occurs in the Lahontan Basin in Alpine, El Dorado, Fresno, Madera, Mono, Nevada, Placer, and Sierra counties. Has been introduced outside of its native watersheds for recreational purposes. Occupied waters near the BSA include upper reaches of the East Fork Carson River, Heenan Lake, and Red Lake	Inhabits lakes and streams, and require streams for spawning. Occupy clear and cold water with silt-free substrate. Streams should have abundant pools with deep slow flowing water and riffles with faster flowing sections. Streambanks should be vegetated to provide shade and cover.	Habitat Absent	The BSA is located within the Lahontan Basin, which includes the historical distribution of this species. However, Hot Springs Creek is not recognized as an occupied water for the species (United States Fish and Wildlife Service 2009).

[1] *Status explanations:*
-- = no listing.
FD= Delisted and removed from FESA list.
Federal
FC = federal candidate for listing under the federal Endangered Species Act.
FE = listed as endangered under the federal Endangered Species Act.
FPT = federal proposed threatened under the federal Endangered Species Act.
FT = listed as threatened under the federal Endangered Species Act.
FSS = Forest Service Sensitive Species
State
SC = state candidate for listing under the California Endangered Species Act.
SE = listed as endangered under the California Endangered Species Act.
SSC= state species of special concern
ST = listed as threatened under the California Endangered Species Act.

[2] *A = absent; HP = habitat present; P = present*

Source: CNPS 2018; CNDDB 2018; USFWS 2009, and USFWS 2018.

References

Baggs, J., E. Bergstrom, D. Netz. 2014. Carson Ranger District Rapid Assessment Chart. Provided via email from Tim Kellison, Zone Botanist, on November 15, 2017.

California Native Plant Society. 2018. Inventory of rare, threatened, and endangered plants of California. Available at: http://www.rareplants.cnps.org/. Accessed October, 2018.

California Natural Diversity Data Base. 2018. Available at: http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp. Accessed October 2018.

California Invasive Plant Council (Cal-IPC). 2017. California Invasive Plant Inventory Database. California Invasive Plant Council: Berkeley, CA. Available at: http://www.cal-ipc.org/plants/inventory/ Accessed October 2017.

Calflora. 2017. Information on California plants for education, research and conservation, based on data contributed by dozens of public and private institutions and individuals, including the Consortium of Calif. Herbaria. [web application]. Berkeley, California: The Calflora Database [a non-profit organization]. Available at: http://www.calflora. Org/. Accessed September and October 2017.

Dean, Ellen. 2011. Grover Hot Springs State Park Botanical Survey. Provided by Daniel Shaw via email November 2017.

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Dept. Fish & Game, Sacramento, Calif. 156 pp.

Mayer and Laudenslayer 1988. **A Guide to Wildlife Habitats of California.** Edited by Kenneth E. Mayer and William F. Laudenslayer, Jr. State of California, Resources Agency, Department of Fish and Game, Sacramento, CA. 166 pp.

Sawyer, John O., Todd Keeler-Wolf, and Julie M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society.

U.S. Fish and Wildlife Service (USFWS). 2009. Lahontan cutthroat trout (*Oncorhynchus clarkia henshawii*): 5-year review: summary and evaluation. U.S. Department of the Interior, Fish and Wildlife Service, Reno, NV.Western Regional Climate Center. 2017. Markleeville Station(045356). Available at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5356. Accessed September 2017.

_____. 2018 IPaC Trust Resource Report. Available at: https://ecos.fws.gov/ipac/. Accessed on October 24, 2018.

U.S. Forest Service. 2016. Intermountain Region 4, Threatened, Endangered and Sensitive Species for the Toiyabe National Forest. Available at:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5370041.pdf. Accessed October 2017.