Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project

Proposed Mitigated Negative Declaration and Initial Study

PUBLIC DRAFT

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Prepared for:
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Project Information

1. Project Title:	Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project
2. Lead Agency Name and Address	Alpine County Community Development Department 50 Diamond Valley Road Markleeville, California 96120
3. Contact Person and Phone Number	Brian Peters, Community Development Director (530) 694-2140 ext. 425
4. Project Location	Hot Springs Road Bridge over Hot Springs Creek is approximately 2.8 miles west of Markleeville and State Route 89 in Alpine County, California; T 10N, R 20E, Sec. 19 (MDBM) *Markleeville, California* Quadrangle; project area is in Humboldt-Toiyabe National Forest, with County road right-of-way along the road.
5. General Plan Designation	Open Space (OS)
6. Zoning	Agriculture (AG)
7. Description of Project	Alpine County is proposing to replace the existing Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek with a prestressed concrete slab bridge. The existing bridge is structurally deficient and poses a safety hazard to vehicle travel. The project also includes modification of the approaches on Hot Springs Road to reduce the curvature of the road.
8. Surrounding Land Uses and Setting	Primarily National Forest System lands with rural residential housing to the southwest.

9. Other Public Agencies Whose Approval May Be Required:

- California Department of Transportation (funding authorization)
- California Department of Fish and Wildlife (Streambed Alteration Agreement)
- U.S. Army Corps of Engineers (Clean Water Act Section 404 Nationwide Permit)
- Lahontan Regional Water Quality Control Board (Clean Water Act Section 401 Water Quality Certification and Section 402 General Construction Activity Storm Water Permit)
- U.S. Forest Service (Letter of Consent for bridge, easement for road)
- Great Basin Unified Air Pollution Control District (Authority to Construct)

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1 Introduction

1.1 Purpose of this Document

The Alpine County Community Development Department (County) is proposing to replace Bridge No. 31C-0005 over Hot Springs Creek on Hot Springs Road approximately 2.8 miles west of the unincorporated community of Markleeville, Alpine County, California. The existing bridge is structurally deficient and is in need of replacement. The Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project (proposed project) consists of removal and disposal of the existing bridge, a possible temporary stream diversion, installation of the new bridge, and modification of the approaches along Hot Springs Road to match the new bridge alignment and grade. This Initial Study identifies the potential environmental impacts of the proposed project to determine whether the project may have a significant effect on the environment and identifies mitigation measures, where applicable, to reduce or avoid potentially significant effects.

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines (14 California Code of Regulations 1500 et seq.). CEQA requires that public agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. Alpine County is a public agency with discretionary authority over the project and is the Lead Agency under CEQA. The proposed project would receive funding under the Federal Aid Highway Bridge Program and Off System Bridge Toll Credit Funding and would require approvals from the California Department of Transportation (Caltrans), which acts on behalf of the Federal Highway Administration (FHWA). FHWA has designated Caltrans to act as a federal agency on its behalf. Caltrans will need to document compliance with the National Environmental Policy Act (NEPA), which is anticipated to be in the form of a Categorical Exclusion supported by technical studies. The bridge and roadway are on National Forest System (NFS) land managed by the U.S. Department of Agriculture, Forest Service (Forest Service) as part of the Humboldt-Toiyabe National Forest. The Forest Service will also need to comply with NEPA prior to its project approvals and will use the technical reports prepared for Caltrans to support its environmental compliance process, which is expected to be via a Categorical Exclusion.

1.2 Supporting Technical Studies

The technical studies listed below are available for review at the Alpine County Community Development office in Markleeville (see contact information on the Project Information sheet):

- Archeological Survey Report (ASR)/Historical Property Survey Report (HPSR) (confidential; available to qualified readers only)
- Natural Environment Study (NES) Report
- Wetland Delineation Report
- Water Quality Assessment Report
- Visual Impact Assessment Technical Memorandum
- Noise Technical Memorandum

- Section 4(f) Technical Memorandum
- Bridge Design Hydraulic Study and Location Hydraulic Study Report
- Summary Floodplain Encroachment Report

1.3 Document Organization

The document contains the following chapters:

- **Chapter 1 – Introduction:** Describes the purpose and content of this document.

- **Chapter 2 – Project Description:** Provides a comprehensive description of the proposed project, construction schedule, and anticipated permit approvals.

- **Chapter 3 – Initial Study Checklist:** Describes the environmental setting and analyzes impacts of the proposed project using the CEQA Environmental Checklist. Where appropriate, mitigation measures are provided to reduce potentially significant impacts to a less-than-significant level.

- **Chapter 4 – Determination:** Presents Alpine County's environmental determination for the proposed project.

- **Chapter 5 – Report Preparation and References:** Identifies the individuals responsible for preparation of this document and lists references used to support the analysis.

2 Project Description

2.1 Location

Bridge No.31C-0005 is located on Hot Springs Road over Hot Springs Creek approximately 2.8 miles west of Markleeville and State Route 89 in Alpine County, California. The bridge is in Section 19 of Township 10 North, Range 20 East on the *Markleeville, California* 7.5-minute U.S. Geological Survey quadrangle (see Figure 1 at the end of this section). Pleasant Valley Road intersects Hot Springs Road 1.7 miles east of the bridge, and Grover Hot Springs is located approximately 0.7 mile due west of the bridge along Hot Springs Creek. The project area encompasses approximately 4 acres and extends approximately 600 feet east and 300 feet west from the bridge along Hot Springs Road (Figure 2 at the end of this section). A staging area would be located just northeast of the bridge in a previously disturbed area.

2.2 Existing Facility Conditions

The existing bridge is a single-span concrete and steel girder bridge built in 1973. The structure is 30 feet wide and 41 feet long. The bridge consists of a reinforced concrete deck on steel girders with reinforced concrete wing walls, all of which are founded on spread footings. The roadway curves from both sides as it approaches the existing bridge and has an approximate superelevation rate of 8 percent. The roadway is consistent with the Rural Major Collector functional classification as defined by the FHWA (2013).

Hot Springs Road has an average daily trip estimate of 490 (based on 1998 estimates) and is routinely used by recreationists and residents to access Grover Hot Springs State Park, hiking trails, bike trails, and the Shay Creek Summer Home Residential Tract and by emergency responders. The bridge, road, and adjacent area are entirely on NFS land managed by the Humboldt-Toiyabe National Forest, but the County currently maintains the roadway.

2.3 Project Purpose and Need

The proposed project is needed to maintain safe and reasonable access for all classes of private and official vehicles—ranging from passenger vehicles to fully loaded semi-trucks and trailers—to areas southwest of the bridge. The bridge has a 2013 Caltrans sufficiency rating of 46.7 and it is structurally deficient, which means it is eligible for replacement. The steel girders on the bridge have blanket rust with no section loss. The girders are set directly on the concrete abutments, and the bearing areas have either spalled or are cracked. Some locations, particularly at abutment 2, show evidence of a loss of bearing under each end of the steel girders, which appears to be caused by restriction in thermal movements. The bridge has no bearing pads between the girders and the concrete. A new bridge is needed to comply with the Rural Major Collector functional classification and to provide adequate shoulder width across the bridge to accommodate bicycle lanes in each direction.

2.4 Proposed Project Description

Bridge Design

The new bridge will be a cast in place prestressed concrete slab bridge and will be located along the existing alignment, but will be shifted slightly east of the existing bridge to reduce the severity of the approach curve from the north. It will be approximately 34 feet, 10 inches wide by approximately 78 feet long with a traveled way width of 22 feet to accommodate two travel lanes to meet County roadway standards. The shoulder width will be wide enough to accommodate one bicycle lane in each direction. The bridge will be a single-span structure on two concrete abutments founded on driven steel piles or cast-in-drilled-hole concrete piles using wet construction methods. New concrete bridge barriers with tubular steel rails and upgraded approach guardrails will also be installed. The project will require minor alterations to the existing horizontal and vertical alignments of the roadway with no increase in the number of through traffic lanes.

The new bridge abutments will be installed near the top of each bank of Hot Springs Creek, outside the active creek channel. The foundations will be configured so that future scour would not threaten the bridge. The piles could be drilled or driven approximately 60 feet below the existing ground surface, which represents the maximum depth of ground disturbance during construction. Roadway construction could require approximately 1,625 cubic yards of roadway excavation. Some of this excavated material would be used to create 1,060 cubic yards of new roadway embankment. Bridge construction could require an estimated 1,680 cubic yards of additional excavation to remove the existing bridge approach fills and install rock slope protection (RSP). Temporary falsework would be installed across the creek at the location of the new bridge to help support the structure as it is being constructed. The falsework would be removed once the bridge is complete. The existing bridge would be demolished and removed from the project area as construction progresses.

Non-grouted rock slope protection would be placed along the creek banks at the locations of the new abutments to stabilize the banks of Hot Springs Creek under the new bridge. An estimated 1,140 cubic yards of 1/4-ton rock slope protection and backing are expected to be needed around the abutments. Rock slope protection would be installed from the 100-year water surface elevation down to approximately 6 feet below the creek bed and be installed approximately 10 feet up- and downstream of the proposed bridge.

Construction Methods

Hot Springs Road is the only vehicle access route to Grover Hot Springs State Park, the Shay Creek summer homes, and the NFS lands west of Hot Springs Creek, with no detour routes available. To ensure continued passage through the work area during construction, one bridge lane would be replaced at a time. This would allow for controlled, but continuous one-lane traffic flow through the work area. Traffic control measures would be in place throughout construction, as described below.

The East End Charity Valley Trailhead, located approximately 300 feet northeast of the bridge on the northern side of the road, would remain open during construction. This moderately used trail leads west towards Grover Hot Springs State Park and beyond to Charity Valley and Burnside Lake and circumvents the northern side of the project area.

Some construction activities would need to occur within the active channel of the creek, such as construction of temporary falsework and placement of rock slope protection. A temporary stream diversion may be required. The creek flows may be diverted into pipes starting upstream of the rock slope protection placement and ending downstream of the rock slope protection placement.

Staging would occur on Hot Springs Road or the adjacent shoulder in the project area. Staging along the road would be in the travel lane that is closed during construction and would shift to the opposite side of the road once the first phase is complete. A designated area for material or equipment storage would be established in a pullout on the east side of the road north of the bridge. It would encompass approximately 8,500 square feet or 0.2 acre.

The type of equipment and number of construction workers would vary based on the specific activity being conducted. Construction equipment is expected to include an excavator, a loader, a grader, a vibratory compactor, a crane, a grade-all, a pile driver or drill rig, and several trucks. Approximately 6 to 10 construction workers may work on the project on any given day. The project would not require the relocation of any public utilities.

Construction activities could take up to 14 months to complete over two construction seasons. In-stream work could take about 9 months total between the two seasons. In-stream work could begin in late spring and end in early fall as necessary to satisfy seasonal restrictions for channel work. Construction is planned from April 2018 to November 2019, pending authorization of funding and receipt of required permits and approvals, and would include a winter suspension period.

Construction Contract and Standard Measures

The County would retain a construction contractor for construction of the proposed project. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances and for implementing construction-related avoidance or mitigation measures in environmental documents, permits, or other approvals required for the project. Construction specifications would be in accordance with Caltrans Standard Specifications and Special Provisions in force at the time the project is approved. The standard construction practices that would be implemented are described below. Additional measures may be identified as mitigation measures in this document or in permits or other approvals required for the project.

Traffic Control

The existing bridge would remain in operation throughout construction to maintain access to the private and public lands to the west of the project area. Temporary lane closures on Hot Springs Road would be necessary to accommodate construction activities, but at least one lane would remain open at all times. Traffic control measures would be used to alert travelers to the work area, any lane closures, and potential delays in accordance with “Temporary Traffic Control” requirements in the Caltrans Standard Specifications. These measures could include the use of traffic cones, signs, lighted barricades, lights, and flagmen. Advance warning signs for traffic will precede the work area by approximately 1,500 feet in both directions. Access will be readily available at all times for emergency vehicles.

Air Quality/Dust Control

Air pollution and dust control would conform to Caltrans Standard Specifications Sections 14-9.02 "Air Pollution Control" and 14.9-03 "Dust Control" and with Great Basin Air Quality Management District rules. The contractor would be required to implement a dust control program to limit fugitive dust emissions and submit a dust control plan to the County and air district for approval. If asbestos is present in the bridge structure, the County or contractor would need to notify the California Air Resources Control Board of bridge demolition in accordance with its rules and regulations for asbestos.

The fugitive dust and emission controls identified in the dust control plan would include, but are not limited to, the following:

- Water inactive work areas and exposed stockpile sites at least twice daily or until soils are stable.
- Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the work area will either be covered or maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer).
- Any topsoil that is removed during construction will be stored on-site in piles not to exceed 4 feet tall to allow development of microorganisms prior to replacement of soil in the work area. These topsoil piles will be clearly marked and flagged. Topsoil piles that will not be immediately returned to use will be revegetated with a non-persistent erosion control mixture.
- Minimize idling time of vehicles and equipment and shut off equipment when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485).
- Maintain construction equipment in proper working conditions according to manufacturer's specifications, and check it daily to ensure it is in proper running condition before it is operated.
- Equipment or manual watering will be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.

Erosion and Sedimentation Control

The contractor would be required to implement water pollution control measures that conform to Section 13 "Water Pollution Control" of Caltrans Standard Specifications. The contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) that describes and illustrates placement of Best Management Practices (BMPs) within the work area. The SWPPP will be submitted to the County and Regional Water Quality Control Board for approval. The BMPs that will be implemented include, but are not limited to, the following:

- Exercise every reasonable precaution to protect Hot Springs Creek from pollution due to fuels, oils, bitumen, calcium chloride, and other harmful materials and conduct and schedule operations so as to avoid or minimize muddying and silting of the creek.

- Limit vegetation removal to areas necessary for bridge construction and associated activities.
- Use temporary devices, such as dikes, basins, ditches, straw, and seed, to prevent pollutants from entering the creek and to stabilize slopes.
- Install facilities and devices used for water pollution control practices before performing work activities.
- Install soil stabilization materials for water pollution control practices in all work areas that are inactive or before storm events.
- Repair or replace water pollution control practices within 24 hours of discovering any damage.
- 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.
- Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored.
- Implement spill and leak prevention procedures for chemicals and hazardous substances stored in the work area.
- Cover active and inactive soil stockpiles with soil stabilization material or a temporary cover and surround stockpiles with a linear sediment barrier.
- If fueling or maintenance must be done on-site, designate a location at least 50 feet from the creek and use containment berms or dikes to prevent hazardous materials from entering the creek.
- Prevent demolished material from entering the creek, such as through use of authorized covers and platforms to collect debris.
- Do not operate mechanized equipment in the active stream channel.
- Do not deposit material derived from roadway work in the creek channel, including along the banks, where it could be washed away by high stream flows.
- Install sediment control measures before the onset of any precipitation events during the construction season and monitor and maintain them in good working condition until disturbed areas have been revegetated.

Hazardous Materials Control

If lead-based paint is present on the existing bridge, the contractor would remove and demolish it in accordance with methods approved by the U.S. Environmental Protection Agency. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a

high efficiency particulate air filter that empties directly into a waste container. The waste container would be properly documented and disposed of at a Class I landfill near the project area.

Construction specifications will also include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease):

- Implement a site-specific spill prevention plan for potentially hazardous materials. The plan will include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek.

- Store equipment and hazardous materials a minimum of 50 feet away from any surface water feature.

- Maintain vehicles and equipment used during construction in proper working condition to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling will be conducted in an area at least 50 feet away from surface water features or within an adequate fueling containment area.

Prevention of Spread of Invasive Plants

The contractor will be responsible for preventing the introduction or spread of invasive plants in the project area. During construction activities, the contractor will implement the following measures:

- Use only certified weed-free materials for erosion control (e.g., mulch, straw) and fill.

- Wash all equipment used for off-road construction activities prior to entering the project area to remove invasive plants or seeds.

- Use only locally adapted native plant materials in any seed mixes or other vegetative material used for erosion control or revegetation of disturbed areas.

Safety and Health Requirements

The contractor would be required to follow all safety and health requirements set forth by the Occupational Safety and Health Administration. In addition, to prevent wildfires, the contractor would prepare and implement a fire safety plan for construction operations, such as welding, and use construction equipment equipped with fire prevention devices (e.g., spark arrestors) pursuant to Public Resources Code 4442. In compliance with Caltrans Standard Specifications and state regulations, the County will need to comply with the following standard noise reduction measures to prevent health or safety concerns relating to construction noise:

- Equip internal combustion engines with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

- Minimize idling time of vehicles and equipment and shut off equipment when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485).

- Maintain construction equipment in proper working conditions according to manufacturer's specifications, and check it daily to ensure it is in proper running condition before it is operated.

- Maintain good communication with nearby residents and the Forest Service to minimize objections to unavoidable construction noise impacts.

Post-Construction Restoration

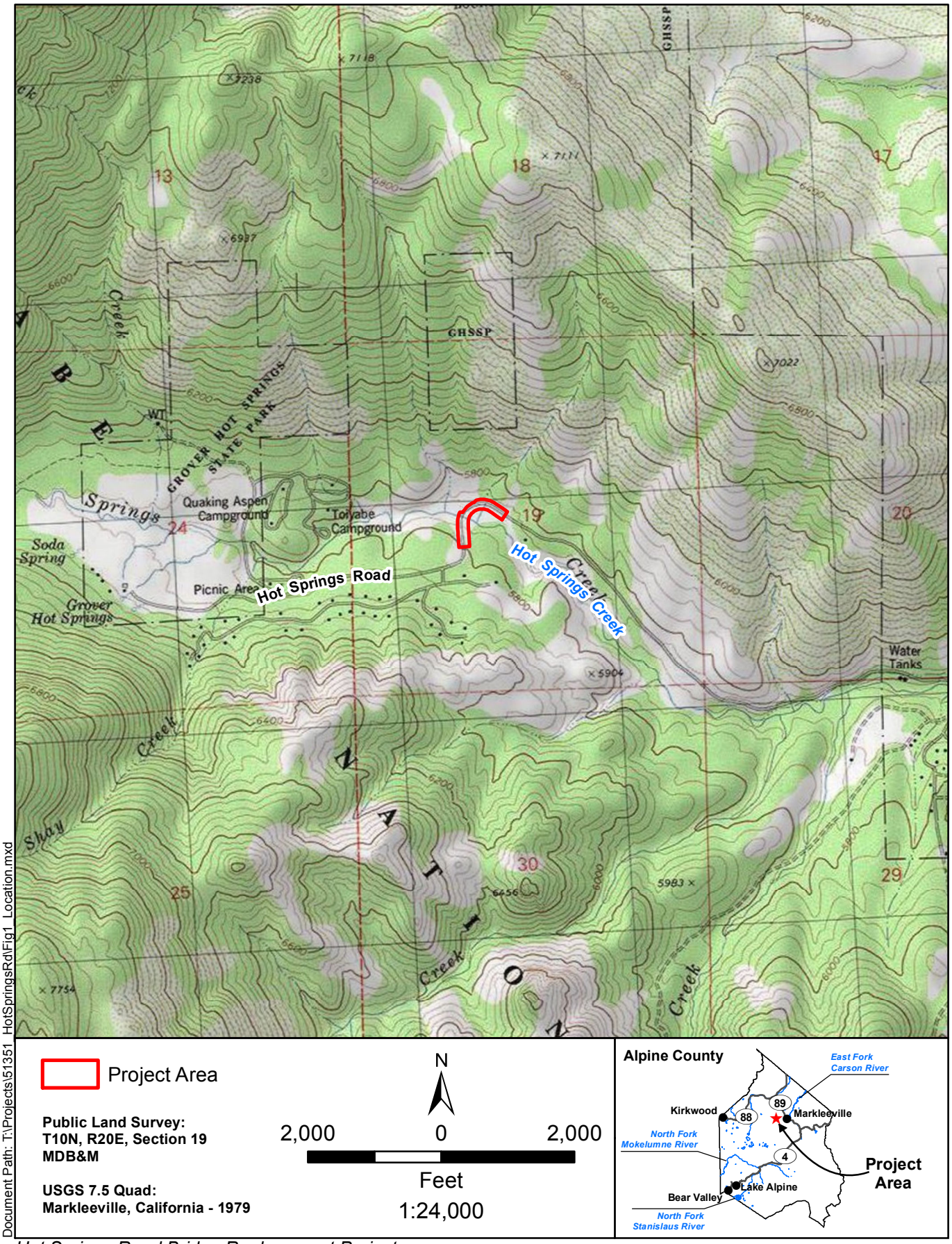
Disturbed areas outside of the new bridge location and roadway approaches would be restored to pre-disturbance conditions, which would include grading to prior contours and reseeding with native grasses. After removal of the existing bridge, excavated areas would be filled with native soil from the new bridge excavations. Natural regeneration of vegetation would be expected along the banks following bridge removal and reconstruction, and plantings are not expected to be necessary.

2.5 Required Permits and Approvals

Table 1 lists applicable federal, state, and local authorizations that may be needed prior to project implementation.

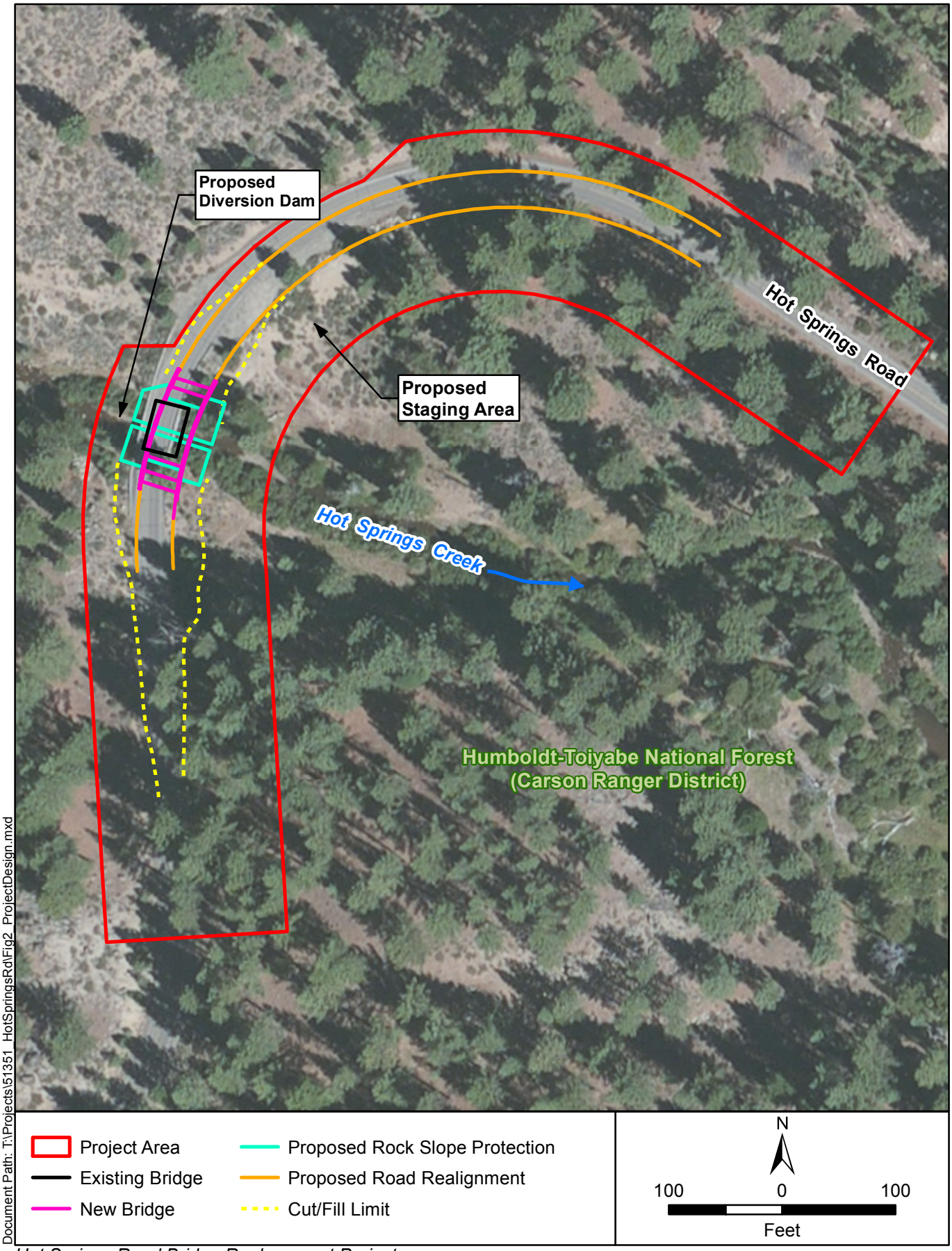
Table 1. Anticipated Permit Approvals

Approving Agency	Permit/Approval	Required for
Federal Agencies		
U.S. Army Corps of Engineers	Section 404 Clean Water Act permit	Discharge of fill material into Hot Springs Creek
U.S. Forest Service	Letter of Consent; Forest Road and Trail Act easement; NEPA compliance	Bridge on NFS land; road easement across NFS land; federal agency action
State Agencies		
California Department of Transportation	Funding authorization; NEPA compliance	Federal Aid Highway Bridge Program; federal agency action
California Department of Fish and Wildlife	Streambed Alteration Agreement (Section 1602 of Fish and Game Code)	Bridge construction and other activities across and in Hot Springs Creek
Lahontan Regional Water Quality Control Board	Coverage under the General Construction Activity Storm Water Permit (Section 402 of the Clean Water Act, 40 CFR Part 122)	Storm water discharges associated with construction activity for greater than 1 acre of land disturbance
	Water Quality Certification (Section 401 of the Clean Water Act)	Discharge of fill into Hot Springs Creek and need for federal permit
Local Agencies/Others		
Alpine County	Project approval; CEQA compliance	
Great Basin Unified Air Pollution Control District	Authority to Construct	Construction activities that would emit air pollutants



Hot Springs Road Bridge Replacement Project

Figure 1
Project Location and Vicinity



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Hot Springs Road Bridge Replacement Project

Figure 2
Project Design

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3 Initial Study Checklist

This chapter incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines, including the CEQA Mandatory Findings of Significance. Each resource section discusses anticipated project-related impacts and presents the level of significance of the impacts. Where appropriate, mitigation measures are provided that would be used by the County to reduce potential impacts to a less-than-significant level. These measures are also listed in the mitigation monitoring and reporting plan, included as Appendix A to this document. A discussion of the mandatory findings of significance is included at the end of this chapter.

Addressed in this section are the following 17 environmental categories:

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

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

- **No Impact:** No impact to the environment would occur as a result of implementing the proposed project.

- **Less-than-Significant Impact:** Implementation of the proposed project would not result in a substantial and adverse change to the environment and no mitigation is required.

- **Less than Significant With Mitigation Incorporated:** A "significant" impact that can be reduced to a less-than-significant level with the incorporation of project-specific mitigation measures.

- **Potentially Significant Impact:** Implementation of the proposed project could result in an impact that has a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382).

3.1 Regional Environmental Setting

Alpine County is the smallest county in California based on its population (about 1,200 people). Located on the crest of the Sierra Nevada between Lake Tahoe and Yosemite National Park, the county is entirely rural with no incorporated cities. Approximately 95 percent of the land in Alpine County is administered by federal agencies, including the Forest Service and the Bureau of Land Management. Markleeville—a census-designated place and the county seat—had an estimated population of 210 in 2010 (U.S. Census Bureau 2012).

Topography and Climate

The project area is in the central portion of Alpine County on the east side of the Sierra Nevada at its interface with the extreme western edge of the Great Basin. The Great Basin is the largest desert in the United States, occupying an arid expanse of about 190,000 square miles and is bordered by the Sierra Nevada on the west, the Rocky Mountains on the east, the Columbia Plateau on the north, and the Mojave and Sonoran deserts to the south. Elevations within the Great Basin range from about 3,000 to 6,500 feet above mean sea level (msl) making for a cool or cold desert environment. Precipitation averages 7 to 12 inches annually with winter precipitation falling mostly as snow (Desert USA and Digital West Media Inc. 2012). In an average year, about 80 percent of all precipitation falls from November through April (Western Regional Climate Center 2012).

Hydrology

The project area is located in the Upper Carson U.S. Geological Survey Hydrologic Map Unit No. 16050201 (U.S. Environmental Protection Agency 2016). The Carson River watershed encompasses some 3,966 square miles, of which 606 square miles are located in Alpine County (Mactec Engineering and Consulting et al. 2004). The Upper Carson River watershed consists of two major subwatersheds: the East Fork Carson River and the West Fork Carson River, both of which originate high in the Sierra Nevada.

Hot Springs Creek is a perennial stream and is a tributary to Markleeville Creek, which flows 4 miles east into the East Fork Carson River. The East Fork Carson River flows north/northeast into Nevada after joining the West Fork Carson River, passing through Carson City and into Lahontan Reservoir. Water held in Lahontan Reservoir is used for irrigation and hydroelectric power generation. Outflow from the Lahontan Dam flows east past Fallon, Nevada, and terminates at the Carson Sink and Stillwater National Wildlife Refuge in Churchill County, Nevada (Timmer et al. 2006).

Land Use and Circulation

The project area is situated in the Humboldt-Toiyabe National Forest, the largest National Forest in the conterminous United States. It is composed of large non-contiguous sections of land scattered across western Nevada and eastern California. The dramatic variation in elevation (approximately 4,100 feet msl to over 12,000 feet msl) and topography within the Humboldt-Toiyabe National Forest on the east side of the Sierra Nevada results in highly variable vegetation communities. Interrange valleys supporting pinyon pine, juniper, and sagebrush transition to rugged mountainous terrain covered by pine or subalpine forests.

Circulation in Alpine County is provided mainly by three state routes (SRs): SR 4, SR 88, and SR 89. Predicted average daily traffic (ADT) for 2015 for each SR varies within Alpine County. SR 4 has a predicted ADT of 1,800–2,700; SR 88 has a predicted ADT of 3,600–3,800; and SR 89 has a predicted ADT of 1,300–3,800 (Alpine County 2009). Hot Springs Road connects to SR 89 approximately 2.8 miles to the east of the project area.

History

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, resources became more and more scarce and the Washoe were relocated in large part to western Nevada. Historically, Alpine County has a rich mining history, and it was established as a result of the silver boom of the 1860s. Although the silver rush has long since ceased, several small mines continue to be worked throughout the county. Tourism and recreation, occupations with the Forest Service and other government agencies, and to a lesser extent ranching and timber harvesting form the basis of the current local economy.

3.2 Environmental Impacts and Mitigation Measures

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

Discussion of Impacts

a, b) ***No Impact.*** The project would not be visible from scenic highways (SR 4 and 89) in Alpine County (Caltrans 2011, Alpine County 2009). No designated scenic vistas occur in the project area or immediate vicinity.

c) ***Less than Significant.*** Hot Springs Road is routinely used by recreationists and residents to access Grover Hot Springs State Park, hiking trails, bike trails, and the Shay Creek Summer Home Residential Tract and by emergency responders. The project area is entirely on NFS land managed by the Humboldt-Toiyabe National Forest. This area has a visual quality objective of partial retention (management practices are visually subordinate) (Forest Service 1986). Views from the project area are limited to surrounding forests. Several residences are to the southwest of the project area, but views from these homes are masked by intervening trees. Travelers along Hot Springs Road, which are limited to private landowners and recreationists, constitute the primary viewer group in the project area.

Temporary visual impacts would occur during construction as the new bridge is built and the existing bridge is removed. Vegetation removal would be required for construction, which would leave areas exposed until they are revegetated. Post-construction restoration of temporarily disturbed areas would maintain the visual character of the project area after construction is complete and ensure visual changes are temporary and minor (North State Resources, Inc. [NSR] 2016e). No vegetation removal or slope contouring would occur on NFS lands, which would ensure consistency with the Visual Quality Objective for the lands.

The new bridge would be in approximately the same location as the existing bridge, but it would be longer and slightly wider. Adjustments to the roadway approaches would reduce the curvature of the road, but would result in minor alterations to the existing horizontal and vertical alignments of the roadway with no increase in the number of

through traffic lanes. These changes to the visual character of the project area would be minor and visible only to travelers along the road. Based on the lack of scenic resources or views along Hot Springs Road near the project area, the project would not degrade the visual character of the area. The new bridge and roadway approaches would go unnoticed by all but the most frequent travelers through the area. The project would also be consistent with the Forest Service visual quality objective of partial retention. Temporary and long-term visual impacts would be less than significant.

d) ***No Impact.*** The project would not involve a permanent source of nighttime lighting or increase glare in the project area. Because the new bridge would be aligned in approximately the same location as the existing bridge, lighting associated with vehicles traveling along Hot Springs Road at night would be unchanged from existing conditions.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
II. AGRICULTURAL AND FOREST RESOURCES — Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in 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?	☐	☐	☐	☒

Discussion of Impacts

a, b) ***No Impact.*** Alpine County does not contain land designated by the state as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Only two areas in Alpine County are under existing Williamson Act contracts, in the Woodfords and Diamond Valley areas, which are not located near the project area. The project would not affect agricultural lands.

c, d) ***No Impact.*** Although the project area is surrounded by forest land, the proposed project would not convert forest land to non-forest uses.

e) ***No Impact.*** The project is not growth inducing and would not have other impacts that could affect farmland or forest land.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
III. AIR QUALITY — Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion of Impacts

a, b) ***Less than Significant Impact.*** The project is located within the Great Basin Unified Air Pollution Control District (GBUAPCD). Alpine County is currently a state-designated "non-attainment" area for coarse particulate matter (PM_{10}) and is in attainment for all federal air quality standards (California Air Resources Board 2016). The project area is not under any applicable air quality plan; however, GBUAPCD has established District Rule 401 to reduce fugitive dust from ground-disturbing activities.

Construction activities would result in short-term increases in emissions from the use of heavy equipment that generates dust, exhaust, and tire-wear emissions; soil disturbance; materials used in construction; and construction traffic. These emissions would include fugitive dust (PM_{10} and $PM_{2.5}$) from ground-disturbing activities and both reactive organic compounds (ROG) and nitrogen oxides (NOx) emissions from vehicle and equipment operations. The PM_{10} and ozone precursor emissions associated with the project would be minimized through the implementation of fugitive dust and emission control measures described in Section 2.5 in combination with the relatively small disturbance footprint (4 acres) and short-term construction period (approximately 14 months over two seasons). Construction-related emissions would also be expected to remain localized around the project area and dissipate within the immediate vicinity,

based on the surrounding topography and vegetation. Few sensitive receptors, if any, would be near the project area during construction.

The requirements of District Rule 401 have been incorporated into the fugitive dust and emission control measures. Therefore, with implementation of the standard measures, the project would be in compliance with GBUAPCD rules for fugitive dust and with Caltrans Standard Specifications. Although Alpine County is designated nonattainment for PM_{10}, implementation of the standard construction practices to reduce fugitive dust and emissions during construction, as described in Chapter 2, would ensure the emissions do not result in a violation of air quality standards in the air basin or a substantial adverse contribution to air quality in the region, and impacts on air quality would be less than significant.

The new bridge is not designed to increase traffic along Hot Springs Road; it would improve safety conditions for travelers using the road. Long-term emissions from traffic using Hot Springs Road would be similar to current conditions and would not increase as a result of the project.

c) ***Less than Significant Impact.*** As discussed under items a, b) above, the project would result in minor construction-related emissions. It would not result in a cumulatively considerable net increase of any criteria pollutant. The project would cause short-term air quality impacts in the vicinity of the project area as a result of construction activities; however, it would not result in long-term or cumulatively considerable increases in air pollution emissions for which Alpine County is currently in nonattainment (PM_{10}).

d) ***Less than Significant Impact.*** Sensitive receptors at nearby recreational residences and recreationists in the vicinity of the project area could be exposed to temporary air pollutants from construction activities, such as fugitive dust, CO, and ozone precursors. Construction activities would last approximately 14 months over two construction seasons, and emissions would not be substantial with implementation of standard fugitive dust and emission control measures. With the minor and temporary nature of emission, receptors would not be exposed to substantial pollution concentrations.

e) ***Less than Significant Impact.*** Construction activities would involve the use of gasoline or diesel-powered equipment that emits exhaust fumes and asphalt paving, which has a distinctive odor during application. These activities would take place intermittently throughout the workday, and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable. However, the limited number of receptors, infrequency of the emissions, rapid dissipation of the exhaust into the air, and short-term nature of the construction activities would result in less-than-significant odor impacts.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a) ***Less than Significant with Mitigation Incorporated.*** The dominant natural vegetation communities and habitat types in the project area are bitterbrush (*Purshia tridentata*) and Jeffrey pine (*Pinus jeffreyi*) (NSR 2016c). Jeffrey pine is the dominant community on the slopes surrounding Hot Springs Creek. Bitterbrush is found in openings on both sides of the creek. Montane riparian and riverine habitat types are less dominant and occur along Hot Springs Creek.

Based on the review of habitat requirements and the results of a field assessment, no special-status fish are expected to occur in the project area, but nine plant species and 12 animal species were determined to have the potential to occur in the project area (NSR 2016c):

- alder buckthorn (*Rhamnus alnifolia*), Rare Plant Rank (RPR) 2B.2
- cut-leaf checkerbloom (*Sidalcea multifidi*), RPR 2B.3
- Davy's sedge (*Carex davyi*), RPR 1B.3

- golden violet (*Viola purpurea* ssp. *aurea*), RPR 2B.2
- Liddon's sedge (*Carex petasata*), RPR 2B.3
- mud sedge (*Carex limosa*), RPR 2B.2
- scalloped moonwort (*Botrychium crenulatum*), RPR 2B.2 and Forest Service Sensitive
- upswept moonwort (*Botrychium ascendens*), RPR 2B.3 and Forest Service Sensitive
- western valley sedge (*Carex petasata*), RPR 2B.3
- western bumble bee (*Bombus occidentalis*), Forest Service Sensitive
- California spotted owl (*Strix occidentalis occidentalis*), Species of Special Concern and Forest Service Sensitive
- great gray owl (*Strix nebulosi*), State endangered and Forest Service Sensitive
- long-eared owl (*Asio otus*), Species of Special Concern
- purple martin (*Progne subis*), Species of Special Concern
- willow flycatcher (*Empidonax traillii*), State Endangered and Forest Service Sensitive
- Vaux's swift (*Chaetura vauxi*), Species of Special Concern
- yellow warbler (*Setophaga petechial*), Species of Special Concern
- ring-tailed cat (*Bassariscus astutus*), Fully Protected
- western white-tailed hare (*Lepus townsendii townsendii*), Species of Special Concern
- pallid bat (*Antrozous pallidus*), Species of Special Concern and Forest Service Sensitive
- western red bat (*Lasiurus blossevillii*), Species of Special Concern and Forest Service Sensitive

Habitat for migratory birds and nesting raptors is also present in the project area and vicinity. Cliff swallows (*Petrochelidon pyrrhonota*), barn swallows (*Hirundo rustica*), and other migratory birds are known to build nests under artificial structures such as bridges. A stick nest was observed under the bridge during the field assessment. No federally listed species are expected to occur in the project area based on either a lack of habitat or the location of the project area being outside the species' known ranges (NSR 2016c). A discussion of potential impacts on habitats and special-status species in the project area is below.

Invasive Plants. Cheatgrass (*Bromus tectorum*) is an invasive species found in the project area that could be further spread during construction activities and degrade native habitats. The County will require its contractor to implement measures to prevent the spread of invasive species, as described in Section 2.5. The restoration of temporarily disturbed areas would help ensure native vegetation recovers in the project area following construction.

Special-Status Plants. Construction activities for the proposed roadway modifications and new bridge would largely be confined to the existing Hot Springs Road alignment. Based on current design plans the Jeffery pine and bitterbrush habitat and the seep could be temporarily disturbed during construction activities such as staging, access, or other general construction activities. These impacts could affect the nine special-status plant species if they are present in the areas subject to ground disturbance and vegetation

removal. Temporarily disturbed areas would be restored after construction in accordance with the standard construction practices identified under Section 2.5. Based on current design plans, the road improvements would permanently affect approximately 0.2 acre of bitterbrush habitat. The Jeffery pine habitat and the seep would not be permanently affected. To prevent the removal or disturbance of individuals or populations of special-status species, the County will implement Mitigation Measure 1, described below, which would ensure impacts on special-status plants are less than significant.

Western Bumble Bee. Ground disturbance and vegetation removal for the road improvements could directly affect bumble bees by destroying a hive/nest or hibernating queens found underground, if present. Construction activities may indirectly affect the western bumble bee through the removal of or temporary disturbance to plants the species uses for foraging. Temporarily disturbed areas would be restored to their pre-project conditions to the greatest extent practicable (Section 2.5). This measure will facilitate revegetation of native plant species and minimize the potential for adverse effects on the species as a result of the anticipated temporary impacts.

The placement of the rock slope protection and the new bridge would result in the removal of less than 0.1 acre of montane riparian habitat. Based on current design plans the proposed roadway would also result in the permanent loss of approximately 0.2 acre of bitterbrush habitat. However, the loss of approximately 0.3 acre of foraging and nesting habitat is considered negligible given the abundance of potential nesting and foraging habitat for the species in the vicinity of the project area. To avoid potential impacts on the western bumble bee, the County will implement Mitigation Measure 2, described below, which would ensure impacts on the bee are less than significant.

Special-Status Birds. Construction activities would coincide with the bird breeding season (April to August) and could disturb nesting birds in or adjacent to the project area, resulting in the incidental loss of fertile eggs or nestlings and/or nest abandonment. The demolition of the bridge may result in the direct removal of nests or affect nesting birds if nests are present in the surrounding vicinity. The removal of the trees and vegetation from the Jeffery pine, bitterbrush, and montane riparian habitats may be necessary to accommodate the new road alignment and bridge and would directly affect nesting birds if nests are present in the vegetation or on the bridge. Other construction activities such as grading, excavation, and paving near trees could also disturb nesting birds. In total, the proposed project would result in the permanent removal of less than 0.5 acre of vegetation (less than 0.1 acre of montane riparian vegetation, 0.2 acre of bitterbrush, and less than 0.01 acre of Jeffery pine). As such, the net loss of habitat would be negligible, and abundant avian nesting and foraging habitat would remain in the vicinity of the project area. The County will implement Mitigation Measure 3, described below, to protect active nests and avoid impacts to nesting birds and incidental take of the state-listed great gray owl and willow flycatcher.

Nesting Raptors and Migratory Birds. Construction activities during the nesting season for migratory birds and raptors (typically March through August) could disrupt nesting activities and adversely affect migratory birds using habitat in or near of the work

area. Impacts would be the same as those described for special-status birds. Implementation of Mitigation Measure 3 would reduce potentially significant impacts as described above.

Western White-Tailed Hare and Ring-Tailed Cat. The removal of the trees and vegetation from the Jeffery pine, bitterbrush, and montane riparian habitats may be necessary to accommodate the new road alignment and bridge and could directly affect western white-tailed hare and ring-tailed cat natal rearing locations if they are present. Other construction activities such as grading, excavation, and paving which occur near natal rearing location could result in reduced fecundity, site abandonment, and/or loss of young. The majority of construction activities would be confined to the existing roadway and would result in less than 0.5 acre of vegetation (less than 0.1 acre of montane riparian vegetation, 0.2 acre of bitterbrush, and less than 0.01 acre of Jeffery pine) being removed. Therefore, the net loss of habitat would be negligible, and foraging and natal rearing habitat would remain in the vicinity of the project area. The County will implement Mitigation Measure 4, described below, to protect natal rearing sites and avoid impacts to western white-tailed hare and ring-tailed cat.

Pallid Bat and Western Red Bat. Impacts on the pallid bat and western red bat would be similar to those described above for birds. Construction activities could disturb roosting bats in the riparian vegetation or snags present in the project area and in other nearby trees. Bridge removal could disturb bats roosting on the bridge. Foraging activity would not be affected because construction activities would take place during the day. The permanent loss of less than 0.1 acre of riparian vegetation (i.e., roosting habitat) is anticipated with the placement of the rock slope protection and the new bridge; however, the permanent loss of roosting habitat would be negligible given the abundance of riparian habitats in the vicinity of the project area. The County will implement Mitigation Measure 5, described below, to protect bat roosting sites and avoid impacts to pallid bat and western red bat.

b, c) ***Less than Significant with Mitigation Incorporated.*** Waters of the United States in the project area encompass a total of approximately 0.314 acre and include a perennial stream (0.219 acre, 255 linear feet), six intermittent streams (0.059 acre, 1,190 linear feet), two ephemeral streams (0.005 acre, 119 linear feet), two non-vegetated ditches (0.027 acre, 773 linear feet), and a seep (0.002 acre) (NSR 2012). The streams emanate from small drainages upslope of Hot Springs Creek and drain to the creek. On average the streams are approximately 1.5 feet wide and 3 inches deep, with a substrate of sand and gravel. Hot Springs Creek flows perennially west to east through the central portion of the project area. The channel of the creek is sparsely vegetated and is approximately 40 feet wide. One seep is located on the south side of the existing bridge, east of Hot Springs Road. The seep supports Kentucky blue grass (*Poa palustris*) and fragile sheath sedge (*Carex fracta*). Montane riparian habitat occurs along the banks of Hot Springs Creek and is dominated by mountain alder, willows, saplings of black cottonwood, and quaking aspen.

Temporary and permanent impacts to waters of the United States and riparian habitat are anticipated as a result of implementation of the proposed project. Temporary impacts would result from the placement of fill into less than 0.01 acre (40 linear feet) of Hot Springs Creek for the diversion dam. Fill of the seep is not expected, but temporary disturbances from equipment working upslope may occur. If used, the diversion dam would dewater approximately 80 feet of the creek in the work area during bridge construction. Water flow would be conveyed via flexible pipe though the work area and discharged downstream of the work area. The piping would be sized to allow creek flows to be directly channeled and conveyed through the work area with minimal impacts at the inlet and outlet locations of the diversion piping. Upon completion of the bridge work the diversion device would be removed and normal stream flow would be restored. After installation of the diversion dam, temporary falsework used for bridge construction would be placed along the banks of the creek and some construction activities may occur within the dried channel during the bridge demolition and construction. The falsework would be placed across the channel and would not require excavation into the creek bed. All construction activities would be confined to the dewatered portion of the creek; thus, additional water quality impacts as a result of these activities are not anticipated.

The new bridge would be 78 feet long and would clear span Hot Springs Creek. The placement of rock slope protection around the northern and southern abutments could result in the permanent discharge of fill in to less than 0.1 acre (144 linear feet) of Hot Springs Creek. The construction of the bridge and roadway realignment would also result in the removal of less than 0.1 acre of riparian vegetation along Hot Springs Creek. The new roadway alignment modification could result in the discharge of fill (asphalt and roadway fill) into two non-vegetated ditches located south of the existing bridge. Based on current design drawings, less than 0.1 acre (272 linear feet) of the non-vegetated ditches would be permanently filled due to the roadway modification.

The construction contractor will be required to implement standard construction practices, such as BMPs and dust control measures, as described in Section 2.5, to minimize potential impacts on Hot Springs Creek and other waters of the United States in the project area. Because of the potential for the project to result in the discharge of fill material into Hot Springs Creek, the County will implement Mitigation Measure 6 to ensure that the proper permits/authorizations are obtained and to minimize impacts on water features as a result of the project. These mitigation measures would reduce potentially significant impacts to a less-than-significant level.

d) ***Less than Significant Impact.*** Migratory fish are not present in the project area; however, wildlife movement could be affected by the project. The temporary diversion in Hot Springs Creek, if used during construction, could restrict movement through the project area and along the creek, but wildlife would be able to use adjacent habitats and the access restrictions would be temporary.

e, f) ***No Impact.*** 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

The County will implement the following mitigation measures to ensure impacts to biological resources would be reduced to a less-than-significant level.

Mitigation Measure 1: Protect Special-Status Plants in the Project Area

The County will retain a qualified botanist to implement the following measures to protect special-status plants in the project area:

- Two surveys for special-status plant species will be performed within a year prior to construction activities. These surveys should focus on areas where impacts to Jeffery pine and the bitterbrush habitats or the seep are anticipated. The surveys will be timed appropriately to coincide with the blooming periods for alder buckthorn (May-July), cut-leaf checkerbloom (May-September), Davy's sedge (May-August), golden violet (April-June), Liddon's sedge (May-July), mud sedge (June-August), scalloped moonwort (June-September), upswept moonwort (July-August), and western valley sedge (July-August). In the event that individuals or populations of these special-status plant species are found, the County will be notified and the area will be marked as an avoidance area both in the field, using flagging, staking, fencing, or similar devices, and on construction plans if avoidance is practicable. If avoidance of the special-status plant species is not practicable, the County will be notified and additional avoidance and minimization efforts (e.g., top soil stockpiling after the plants have gone to seed) will be developed by a qualified biologist to ensure the plant population is not adversely affected.

- Information on the plants and avoidance area will be provided to construction crews as part of worker awareness training.

Mitigation Measure 2: Protect Western Bumble Bee Hives/Nests in the Project Area

The County will retain a qualified biologist to implement the following measures to protect western bumble hives/nests in the project area:

- 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 Forest Service. The County will inform Caltrans when such an activity occurs.

- Environmental awareness training will be conducted by a qualified biologist prior to the onset of the work for construction personnel to brief them on how to recognize western bumble bee nests and other special-status animals that may occur in the project area.

Mitigation Measure 3: Protect Nesting Special-Status and Migratory Birds and Raptors

The County will retain a qualified biologist to implement the following measures to protect bird nests in and near the project area:

- To deter nesting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (before March 31) during the same year as bridge removal is proposed and after a qualified biologist has determined no nesting activity is present. The exclusionary device will remain in place until September 1 or until the bridge is demolished. The exclusionary device will be anchored such that birds cannot attach their nests to the structure through gaps. If birds begin building nesting on the bridge after installation of the exclusionary device, the County will coordinate with CDFW/USFWS and will remove the nesting material in the presence of a qualified biologist to ensure the destruction of an active nest does not occur. Bridge removal may be delayed until the nests are no longer active.

- Because construction activities cannot avoid the avian breeding season, the County will retain a qualified biologist to conduct a pre-construction survey of the project area and a 250-foot buffer, as access is available, to locate active bird nests and identify measures to protect the nests. The pre-construction survey will be performed between April 1 and August 31, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access). If a lapse in construction activities for 14 days or longer occurs, another pre-construction survey will be performed.

- If active nests are found during the pre-construction survey, the County will coordinate with a qualified biologist and CDFW/USFWS, as necessary, on additional protection measures, such as establishment of a buffer around the nest tree and/or biological monitoring. No construction activity will be conducted within this zone during the nesting season (April 1 and August 31) or until such time that the biologist determines that the nest is no longer active or the nesting activity would not be disrupted. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and will avoid entering the buffer zone during the nesting season.

- Information on nesting special-status and migratory birds will be provided to construction crews during the worker environmental awareness training.

Mitigation Measure 4: Protect Natal Rearing Sites of White-Tailed Hare and Ring-Tailed Cat

The County will retain a qualified biologist to implement the following measures to protect natal rearing sites of white-tailed hare and ring-tailed cat in and near the project area:

- Given that work will occur during the natal denning period for ring-tailed cat (March 1 to June 30), the County will retain a qualified biologist to conduct a pre-construction survey no more than 3 days prior to construction activities. If an active denning location is identified

during the survey, the County will coordinate with a qualified biologist and CDFW, as necessary, on additional protection measures.

- The environmental awareness training will include information on white-tailed hare and ring-tailed cat.

- If white-tailed hare or ring-tailed cat is encountered in the project area during construction, work will stop and the individual will be allowed to freely egress the work area.

Mitigation Measure 5: Protect Roost Sites of Pallid Bat and Western Red Bat

The County will retain a qualified biologist to implement the following measures to protect roosting sites of pallid bat and western red bat in and near the project area:

- In conjunction with the pre-construction nesting bird survey (Mitigation Measure 3), a qualified biologist will conduct surveys of suitable roosting locations in and within 250 feet of the project area prior to the installation of exclusionary netting around the bridge. The pre-construction survey will be performed to determine if the existing vegetation or bridge is being used by western red bats or pallid bats as roosting locations. If the biologist finds evidence of bat roosts, the biologist should attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary.

- If during the survey, pallid bat or western red bat day roost or maternity roosts are identified in the vegetation or structure (e.g., the bridge) slated for removal, the County will coordinate with CDFW to determine the next steps and appropriate methods for removal. The installation of the exclusionary netting would help ensure roosting bats are not present under the existing bridge prior to demolition. Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increasing their chance of finding new roosts with minimum exposure to predation during daylight.

Mitigation Measure 6: Comply with Permit Terms for Impacts on Waters of the United States and Minimize Disturbance to Water Features

The County will comply with the terms of a Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers and Section 401 water quality certification issued by the Lahontan Regional Water Quality Control Board for activities involving the discharge of fill material into Hot Springs Creek or wetlands. For activities in and along Hot Springs Creek, the County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). The actual project impacts will be calculated once final designs are available and during the permit application process. Prior to any discharge of dredged or fill material into wetlands and other waters located in the project area or the removal of riparian vegetation, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required

permits and authorizations will be implemented. In addition, the County will implement the following measures to offset and minimize impacts on water features:

- Based on the final designs, if unavoidable permanent impacts on wetlands in the project area are anticipated, the County will compensate for the loss of wetland functions through payment into an in-lieu fee program or mitigation bank identified in coordination with the Corps. The specific mitigation ratio will be identified in coordination with the Corps and will provide at least a 1:1 replacement ratio for impacts to mitigation.

- Constructed drainage ditches or channels should be placed along the western and eastern boundary of the new roadway alignment south of the bridge to convey runoff from the ephemeral streams towards Hot Springs Creek.

- The waters of the United States in the BSA will be identified on construction drawings, and those features that would not be affected will be demarcated in the field with flagging to identify the areas as off-limits to equipment, vegetation removal, and ground-disturbing activities.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES/TRIBAL CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 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?	☐	☒	☐	☐
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074?	☐	☐	☐	☒

Discussion of Impacts

a, b) ***Less than Significant with Mitigation Incorporated.*** The project area is situated within the traditional lands of the Washoe; a native people culturally linked to both California and the Great Basin (NSR 2016b). Historically the principle industry in Alpine County was timber harvesting and milling, which was founded largely to support mining operations. Gold and silver mining were the next largest industries at the time. Today 95 percent of Alpine County is administered by federal agencies. The nearby Markleeville was established in the late 1800s as a result of the mining boom and discovery of the Comstock Lode.

Bridge 31C-0005 is presently listed by Caltrans as a Category 5 structure (not eligible for NRHP listing). No prehistoric or historic-era sites, features, or artifacts (pursuant to Section 15064.5) are known to be located in the project area, but several cultural sites, including two historic-era sites (known as CA-ALP-691H and CA-ALP-692H), 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 immediate surrounding area possesses a high level of sensitivity for exhibiting traces of prehistoric and early historic-period activities. Due to the previous disturbances associated with road and bridge construction, those portions of the project area that would be disturbed during construction of the new bridge possess a low sensitivity for cultural resources. Consequently, it is considered unlikely that ground-disturbing activities would encounter any historic-era or early Native American sites, features, artifacts, or human remains. Known cultural resources near the project area would be protected by an existing 2 ± meter tall berm that is between the previously documented resources and the proposed road and bridge improvements, and the project would not affect the two nearby historic-era sites.

If previously undiscovered subsurface cultural resources are encountered during project construction and they are considered historical resources under CEQA, impacts could be significant. Implementation of Mitigation Measure 7 would protect those resources and ensure that impacts are less than significant.

c) ***No Impact.*** The project area and vicinity lack fossil-bearing rock formations (John et al. 1981), and few occurrences of paleontological resources have been documented in Alpine county (University of California Museum of Paleontology 2016). Because of these findings, the project is not expected to affect paleontological resources. The project area does not contain any other unique geologic features.

d) ***Less than Significant with Mitigation Incorporated.*** Based on the current disturbed nature of much of the project area, human remains are not expected to be affected by construction activities. If previously undiscovered remains are encountered during project construction and the remains are human, then impacts could be significant. Implementation of Mitigation Measure 8 would help ensure that any potential impacts on human remains are less than significant.

e) ***No Impact.*** Correspondence with Native American representatives and tribal organizations between 2012 and 2016, including the Washoe Tribe of Nevada and California and Calaveras Band of Mi-wuk Indians, did not identify any concerns about the project or potential tribal resources in the project area. The proposed project would not affect any Tribal Cultural Resources.

Mitigation Measures

The County will implement the following mitigation measures to ensure impacts to cultural resources are less than significant.

Mitigation Measure 7: Protect Cultural Resources Exposed During Construction

The Caltrans standard policy for previously unidentified cultural resources states that "work be halted in that area until a qualified archaeologist can assess the significance of the find." In the event cultural resources (other than those determined to lack eligibility for either the National Register or the California Register) are unearthed inadvertently as a result of project-related activities, all work in the immediate vicinity of the discovery will be stopped, and the County and Caltrans will be notified. An archaeologist meeting the Secretary of Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be retained to evaluate the find and recommend appropriate conservation measures. Appropriate conservation measures shall be implemented prior to re-initiation of activities in the immediate vicinity of the discovery.

Mitigation Measure 8: Protect Human Remains Exposed During Construction

In the event that any human remains or any associated funerary objects are encountered during construction, all work will cease within the vicinity of the discovery. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the Alpine County Sheriff/coroner should be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent. The descendant will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
VI. GEOLOGY AND SOILS — Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☒
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 strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems?	☐	☐	☐	☒

Discussion of Impacts

a-i) ***No Impact.*** The project area is not located within an Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2015a).

ii-iv) ***Less than Significant Impact.*** The closest inactive faults are the Carson Range (Genoa Fault) located less than 1 mile east of the project area and the Antelope Valley Fault located approximately 12 miles southeast of the project area (California Geological Survey 2015b). In the event of a major earthquake from nearby faults, the new bridge may be subject to strong ground shaking, but would not be expected to sustain substantial damage. Furthermore, the potential for seismic-related ground failure or landslides in the project area is considered to be low based on the topography.

b) ***Less than Significant Impact.*** One soil type has been mapped in the project area, Joecut–Heenlake association (Natural Resources Conservation Service 2013). This soil is a non-hydric, well-drained soil association of very gravelly sandy loam to very gravelly loam that occurs on mountain slopes and ridges. The parent material is volcanic colluvium. The depth to the restrictive layer of bedrock is 60 to 80 inches. This soil has a moderate erosion potential.

Construction activities would disturb soil and increase the potential for soil erosion from wind and water until the new road is paved and vegetation re-establishes in adjacent disturbed areas. Although excavation for the abutments would disturb soil along the creek, the creek may be dewatered during construction activities, which would prevent sediment from entering the creek and affecting water quality. Soil along the bank where the existing bridge is removed would be initially exposed to erosion during the first rain event after bridge removal, but the placement of RSP and the natural reestablishment of vegetation along the bank would protect the soils from substantial erosion associated with normal rain events over the long term. Likewise, removal of the temporary diversion structure would initially expose soils along the banks to erosion as creek flows return to normal, but RSP and vegetation along the creek would help stabilize soils and reduce the potential for erosion. While up to 4 acres of soil disturbance would occur during construction, indirect effects from soil erosion would be minimized with implementation of standard construction practices for erosion and sedimentation control. Long-term effects from soil erosion are not anticipated because the road would be paved, the banks of the creek around the abutments would be protected, and adjacent disturbed areas would be revegetated with grasses or restore naturally with vegetation.

c, d) ***No Impact.*** Soils in the project area have a low potential for expansion and are not unstable or susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse.

e) ***No Impact.*** The project does not include wastewater facilities.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
VII. GREENHOUSE GAS EMISSIONS — Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion of Impacts

a) ***Less than Significant Impact.*** Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (Governor's Office of Planning and Research 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

Emissions of GHGs from the project would be produced from the materials used in the bridge as well as construction-related equipment emissions. The project would not increase the generation of emissions after construction is complete because traffic levels would be similar to current conditions. Emissions of GHGs resulting from construction activities would be short-term and minor. While the project would have an incremental contribution within the context of the county and region, the individual impact is considered less than significant.

b) ***No Impact.*** California has demonstrated its intent to address global climate change through research, adaptation, and GHG inventory reductions. In response, the California Legislature enacted the California Global Warming Solutions Act of 2006 (AB 32, Health and Safety Code Section 38500 et seq.) to implement standards that will reduce GHG emissions to 1990 levels. In the act, the Legislature found that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009.

The project would not generate significant emissions of GHGs and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a) ***Less than Significant Impact.*** Small amounts of hazardous materials (e.g., fuel and solvents) would be used during construction activities. Use of hazardous materials would be limited to the construction phase and would comply with applicable local, state, and federal standards associated with the handling and storage of hazardous materials.

Construction measures and BMPs would reduce the potential for a hazardous materials spill to occur and would minimize impacts if a spill were to happen. In addition, as described in the project description (Section 2.4), the contractor will be required to prepare a SWPPP that identifies project-specific BMPs that would be implemented in accordance with County and Caltrans requirements, which would further reduce the potential for a hazardous material spill. Impacts associated with the use of hazardous materials would be less than significant.

b) ***Less than Significant Impact.*** Hazardous materials or other substances would not be allowed to enter the creek during bridge removal. Hazardous materials would not be stored or used, such as for equipment maintenance, near Hot Springs Creek to prevent accidental discharge of hazardous materials into the water, and the creek would be dewatered during construction. The County will require the contractor to immediately clean up any spills and properly dispose of all wastes and used spill control materials. Impacts associated with the use or accidental spill of hazardous materials would be less than significant.

c-f) ***No Impact.*** The project area is not near any schools, airports, private airstrips, or active clean-up or hazardous material sites (State Water Resources Control Board 2016).

g) ***Less than Significant Impact.*** The existing bridge would remain in operation throughout construction to maintain access to the private and public lands to the west of the project area. Temporary lane closures on Hot Springs Road would be necessary to accommodate construction activities, but at least one lane would remain open at all times. This would allow emergency responders access through the project area and would not impair an emergency response plan or emergency evacuation plan.

h) ***Less than Significant Impact.*** The project area is surrounded by forest lands that pose a high hazard for wildfire. If welding or other activities are required during construction, the contractor will be required to prepare and implement a fire safety plan for construction operations and use construction equipment equipped with fire prevention devices (e.g., spark arrestors) pursuant to Public Resources Code 4442, as described in Section 2.4. Long-term use of the bridge would not increase wildfire potential above existing conditions. Impacts relating to wildfires would be less than significant.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XI. 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 should be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation of seiche, tsunami, or mudflow?	☐	☐	☐	☒

Discussion of Impacts

a) ***Less than Significant Impact.*** Water quality of Hot Springs Creek is generally good, and the creek is not considered an impaired water body (State Water Resources Control Board 2010). Markleeville Creek, which Hot Springs Creek flows into about 2 miles downstream (east) of the project area, is also not impaired. Beneficial uses of Markleeville Creek include agricultural supply, municipal and domestic supply, ground water recharge, water contact and non-contact recreation, commercial and sport fishing, cold freshwater habitat, wildlife habitat, and migration and other habitat for aquatic species.

Construction activities across and along the banks of Hot Springs Creek would occur between May and October, when flows are the lowest, to minimize impacts to the creek. In addition the creek may be dewatered during construction activities, which would prevent sediment or hazardous materials from entering the creek during installation of rock slope protection. Soil along the bank where the existing bridge is removed would be initially exposed to erosion during the first rain event after bridge removal, but the placement of rock slope protection and the natural reestablishment of vegetation along the bank would protect the soils from substantial erosion associated with normal rain events over the long term and reduce the potential for eroded soil or sediment to enter the creek and affect water quality (NSR 2016f). Likewise, removal of the temporary diversion would initially expose soils along the banks to erosion, but RSP and vegetation along the banks would reduce the potential for water quality impacts. The implementation of standard construction practices to prevent erosion and sedimentation would also minimize water quality impacts during construction, ensuring impacts are less than significant.

b) ***No Impact.*** The project would not involve the use of groundwater supplies and would not affect groundwater recharge in the project area.

c) ***Less than Significant Impact.*** The hydrology of the project area is provided via Hot Springs Creek and adjacent urban runoff from Hot Springs Road. Hot Springs Creek is a perennial stream with its headwaters approximately 3.5 miles west of the project area on the east slope of the Sierra Nevada at Burnside Lake, within Humboldt-Toiyabe National Forest. Several intermittent and ephemeral streams and roadside ditches flow into the project area and drain into Hot Springs Creek. Runoff from surrounding roadside ditches and intermittent and ephemeral streams appears to provide a negligible contribution to hydrology within the project area.

The project may require temporary dewatering of Hot Springs Creek during construction of the new bridge. All work in or along the creek would take place in the dewatered area, including construction of temporary falsework and placement of rock slope protection. A brief increase in flows in the dewatered area as the temporary diversion is removed would result in a minor release of sediment into the creek, as discussed for impact a) above, and impacts relating to alterations in drainage patterns would be less than significant.

The project would not have any negative long-term impacts to water quality as a result of drainage pattern alterations because the changes in drainage patterns would be temporary. The placement of rock slope protection would provide long-term protection around the abutments and banks near the bridge and reduce erosion and sedimentation. The new bridge would span the creek and would not affect flows over the long term.

d) ***Less than Significant Impact.*** The temporary dewatering of Hot Springs Creek and the increased surface area of the new bridge and road would have minimal effects on flooding in the area. Creek flows would be temporarily dammed and diverted during construction, but instream activities would occur during the summer, low flow months, and the temporary diversion in not expected to result in flooding upstream of the

temporary dam. A minor increase in impervious surface area would slightly increase runoff into the creek. The new bridge would improve flood flows over the long term because it has been designed to be longer and higher than the existing bridge structure (WRECO 2016).

e) ***Less than Significant Impact.*** The wider new bridge structure and modified roadway approaches would increase the amount of impervious surface in the project area. Because of the larger size of the new bridge, the additional surface area would result in a slight increase in storm water runoff, which would result in a less-than-significant impact. The potential for polluted runoff (e.g., containing lubricants) to enter Hot Springs Creek during operation would be similar to current conditions because the new bridge would have the same function and use as the existing bridge.

f) ***No Impact.*** No additional impacts to water quality are anticipated.

g) ***No Impact.*** The project does not include the construction of new housing.

h) ***Less than Significant Impact.*** The temporary diversion is not expected to be affected by flooding because the pipes would be properly sized to convey the required flow and because the structure would be in place during low flow periods when flooding is not anticipated.

The new bridge would allow more flow to pass under the bridge and would reduce flood elevations. These changes would not substantially increase channel instability in the vicinity of the new bridge and would not impede or redirect flood flows.

i) ***Less than Significant Impact.*** Footings and abutments for the new bridge would be placed in the flood zone of Hot Springs Creek, but the bridge itself would be above the floodplain and be capable of conveying flows associated with the 100-year flood event. If a major flood event is anticipated during the construction period, activities would be postponed for the safety of the workers. With construction taking place during the low-flow period, the potential for a flood to affect temporary structures or expose workers to hazards is minimal.

j) ***No Impact.*** The project area is not at risk of inundation from a seiche, tsunami, or mudflow.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a) ***No Impact.*** The project area is not in an established community. The bridge is designed to improve safety for travelers on Hot Springs Road and would not divide any communities.

b) ***Less than Significant Impact.*** The project area is in the Humboldt-Toiyabe National Forest Management Area 3 (Alpine) and is subject to management guidelines in the Toiyabe Land and Resource Management Plan as amended (Forest Service 1986). The County will obtain authorization from the Forest Service to replace the bridge and modify the roadway and ensure compliance with the land and resource management plan. The new bridge would have the same function as the existing bridge and would not change land uses in the project area.

c) ***No Impact.*** No habitat conservation plans or natural community conservation plans have been adopted for the area.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a) ***No Impact.*** The project area has not been mapped by the Surface Mining and Reclamation Act (California Department of Conservation 2015). Gravel mining activities do not occur at this location. It is unlikely that the project area would be considered an important aggregate resource.

b) ***No Impact.*** No locally important mineral resource recovery sites are located within the project area.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XII. NOISE — Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
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 compatibility plan or, where such a plan has not been adopted, within two miles of a public airport of public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion of Impacts

a, d) ***Less than Significant Impact.*** The project area is located in a rural region with relatively low ambient noise levels, dispersed recreational residences, and forest lands. The nearest homes (i.e., sensitive noise receptors) are located approximately 650 feet from the bridge and approximately 350 feet from the southern end of the project area (NSR 2016a). Toiyabe Campground within Grover Hot Springs State Park is located approximately 0.25 mile west of the project area. Recreationists in the surrounding area may also be sensitive to increased noise levels in the project area. The County does not specify noise

standards for transportation projects; however, General Plan Policy 24b specifies a not-to exceed daytime noise level standard of 70 ambient decibels (dBA) for noise created by new non-transportation noise sources (Alpine County 2009).

Replacement of the bridge would generate temporary noise from equipment use, bridge installation, and bridge removal. Construction noise would temporarily increase ambient noise levels within and adjacent to the project area. In addition, construction noise may periodically exceed 70 dB during the most intense activities, such as pile driving. In addition to the distance between the nearest home and the construction activities, several large trees in this forested area would act as partial sound barriers, buffering and absorbing the intensity of project-related construction noise and reducing sound levels to below the County's 70 dBA standard described above. These residences are in the Shay Summer Homes development and may only be occupied a few days each month as weekend and seasonal vacation homes. If these homes are unoccupied during construction, construction noise would have no impact on these sensitive receptors. Construction would primarily occur during daylight hours, thereby reducing noise generated during the more sensitive evening, night, and early morning hours. If night time construction were to occur, it would not be expected to exceed the noise control impact screening level of 86 dBA, as stated in Section 14-8.02, Noise Control, of Caltrans 2015 Standard Specifications. Occasional hikers using the Charity Valley trailhead close to the project area would notice construction noise periodically during the work day. The contractor will comply with standard noise reduction measures identified in Section 2.4 to further minimize the potential for noise impacts on nearby sensitive receptors. Noise-related impacts would be less than significant.

b) ***Less than Significant Impact.*** Construction-related groundborne vibration resulting from the movement of heavy equipment within the construction area would be temporary and localized. The project would involve the use pile driving; however, no people or structures are within the immediate construction area that could be affected by groundborne vibration. The distance to the nearest residence (approximately 650 feet) would dampen the vibrations, resulting in less-than-significant impacts.

c) ***No Impact.*** Because the project would not increase roadway capacity, noise generated by the project would be temporary and limited to the construction phase.

e, f) ***No Impact.*** The proposed project is not located in an airport land use area or in the vicinity of an airstrip.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a) ***No Impact.*** Housing within the vicinity of the project area includes the Shay Creek summer homes to the southwest of the existing bridge. Replacement of the existing Hot Springs Creek bridge structure would not increase traffic capacity or extend road access beyond what is available without the project and would have no effect on population or housing in the vicinity of the project area.

b) ***No Impact.*** Existing housing in the vicinity of Hot Springs Road would not be displaced by the project and no replacement housing would be required.

c) ***No Impact.*** No people would be displaced as a result of the project and no replacement housing would be required.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XIV. PUBLIC SERVICES — Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion of Impacts

a) ***No Impact.*** The proposed project would not affect public services in Alpine County, increase the demand for public services, or require construction of new governmental facilities.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
XV. RECREATION — Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion of Impacts

a) ***Less than Significant Impact.*** NFS lands within the vicinity of the project area are used for recreational purposes, including lands to the west of the Hot Springs Road bridge. Although these NFS lands are not designated by the National Forest as being for significant park or recreation resources (NSR 2016d), they are used by recreationists to access the Grover Hot Springs and various trails and campgrounds in the area. The proposed project would not increase use of nearby recreation areas. Hot Springs Road would be open to through traffic during construction and would not impede access to nearby recreational areas. Temporary delays to recreational access would result in a less-than-significant impact.

b) ***No Impact.*** The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XVI. TRANSPORTATION/TRAFFIC — Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
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 to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion of Impacts

a, b) ***Less than Significant Impact.*** The proposed project is consistent with the goals and policies of the Alpine County General Plan and the Regional Transportation Plan (Alpine County 2009). The project is also consistent with the management direction regarding transportation systems and facilities on the Humboldt-Toiyabe National Forest. Construction traffic would temporarily increase traffic on Hot Springs Road. The existing bridge would remain in operation throughout construction to maintain access to the private and public lands to the west of the project area. Temporary lane closures on Hot Springs Road would be necessary to accommodate construction activities, but at least one lane would remain open at all times. Traffic control measures, as described in Section 2.4, would be used to alert travelers to the work area, any lane closures, and potential delays. Traffic-related impacts would be less than significant.

The project would not increase traffic levels or alter the circulation system over the long term. The new bridge is not designed to increase traffic on Hot Springs Road, and long-term traffic along the road would be similar to current conditions.

c) ***No Impact.*** The project would not result in a change in air traffic patterns.

d) ***No Impact.*** The project would not result in the creation of sharp curves, dangerous intersections, or incompatible uses. The project is designed to provide an improved alignment and a safer bridge across Hot Springs Creek.

e) ***Less than Significant Impact.*** As stated above, the existing bridge would remain in operation throughout construction to maintain access to the private and public lands to the west of the project area. This would provide emergency responders with adequate access west of the bridge.

f) ***No Impact.*** The project would not conflict with any adopted plans, policies, or programs that support alternative transportation and would be consistent with the goals and policies of the Alpine County General Plan, Regional Transportation Plan, and Toiyabe National Forest Land and Resource Management Plan. Persons which desire to access recreation areas to the east of the project area may do so via the temporary path, which would support access for small off-highway vehicles, bicycles, equestrians, and pedestrians.

Mitigation Measures

No mitigation measures are necessary.

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

Discussion of Impacts

a, b, d, e) ***No Impact.*** The proposed project would not generate wastewater or require a new water supply. It would not alter stormwater drainage. No new wastewater or water facilities would be constructed or needed as part of the project.

c) ***No Impact.*** The proposed project would not involve the construction of stormwater drainage facilities.

f, g) ***Less than Significant Impact.*** Disposal of solid waste would occur at permitted facilities, such as the Bear Valley Transfer Station, which has a maximum capacity of 220 tons per year. The proposed project would generate a small quantity of solid waste from removal of construction materials and demolished bridge components. Any materials used during or generated from construction would be properly disposed of in accordance with federal, state, and local regulations. The project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of the Bear Valley Transfer Station.

Mitigation Measures

No mitigation measures are necessary.

	Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency if required)				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a) ***Less than Significant with Mitigation Incorporated.*** Construction-related activities could result in impacts on sensitive biological resources and previously undiscovered cultural resources. Standard construction practices and mitigation measures described in

this Initial Study would be implemented to ensure minimal impacts to biological and cultural resources.

b) ***Less than Significant with Mitigation Incorporated.*** Project design, standard construction practices, and mitigation measures would ensure that all project-related impacts are less than significant, and no long-term adverse impacts are anticipated. With the implementation of standard construction practices in Chapter 2 and mitigation measures in Chapter 3, the project would result in individually minor impacts and would not contribute substantially to cumulative impacts, resulting in a less than significant impact.

c) ***Less than Significant Impact.*** The proposed project, particularly during the construction phase, could result in a variety of temporary impacts to human beings. Potential adverse effects would be related to air quality, noise, traffic, and wildfire hazards. The implementation of standard construction practices described in the project description (Section 2.5) would ensure that construction-related impacts on human beings are less than significant, and no long-term impacts are anticipated.

4 Determination

This Initial Study has determined that in the absence of mitigation the project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified to reduce potentially significant impacts to less-than-significant levels (see Appendix A).

	Aesthetics		Mineral Resources
	Agricultural Resources		Noise
	Air Quality		Population and Housing
X	Biological Resources		Public Services
X	Cultural Resources		Recreation
	Geology and Soils		Transportation/Traffic
	Hazards and Hazardous Materials		Utilities
	Hydrology and Water Quality	X	Mandatory Findings of Significance
	Land Use/Planning		

On the basis of this initial evaluation:

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

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

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

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

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

Signature

9-28-2016
Date

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5 Report Preparation and References

5.1 List of Preparers

Alpine County Community Development Department – CEQA Lead Agency

Brian Peters	Community Development Director
Scott Maas	Transportation Coordinator

Quincy Engineering, Inc. – Bridge Design

Jason Jurrens, P.E.	Project Manager

North State Resources, Inc. – Environmental Compliance

Wirt Lanning	Project Director
Leslie Perry	Project Manager/Environmental Analyst (former)
Jed McLaughlin	Environmental Analyst
Nick Eide	Biologist
Brian Ludwig	Principal Archaeological Investigator (former)

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Appendix A

Mitigation Monitoring and Reporting Plan

Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project

Mitigation Monitoring and Reporting Plan

October 2016

CEQA Lead Agency:
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Introduction

This document comprises the Mitigation Monitoring and Reporting Plan (MMRP) for the Hot Springs Road Bridge (No. 31C-0005) over Hot Springs Creek Replacement Project (project) near Markleeville in Alpine County. It identifies the mitigation measures described in the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the project and the monitoring requirements for each measure (see Table 1). The mitigation measures listed herein were identified to reduce or avoid potentially significant impacts on biological resources and cultural resources.

The legal basis for the development and implementation of the MMRP is from the California Environmental Quality Act (CEQA), Public Resources Code Sections 21002 and 21081.6, which state:

- Public agencies should not approve projects, as proposed, if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects.

- When adopting a mitigated negative declaration, the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.

Responsibilities and Authority

As the lead agency under CEQA, Alpine County is responsible for monitoring implementation of the project and ensuring that adopted conservation and mitigation measures are implemented. The County may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The County will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

Complaints of noncompliance with adopted mitigation measures shall be directed to Alpine County (attention Brian Peters) in written form, providing specific information on the alleged violation. If any complaints are received, the County shall conduct an investigation, determine the validity of the complaint, and take the appropriate action to remedy the violation if appropriate. The person filing the complaint shall receive written confirmation indicating the results of the investigation.

Monitoring Requirements

Table 1 includes the following items to track completion of each mitigation measure:

- **Construction/Mitigation Measure:** presents the standard construction practices and mitigation measures identified in the IS/MND that are incorporated into the project.
- **Timing:** identifies when the measures will be implemented.
- **Responsible Party:** identifies the entity responsible for implementing and monitoring the measure.
- **Verification:** provides spaces to be initialed and dated by the individual responsible for verifying compliance with each specific measure.

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
Standard Construction Practices			
Traffic Control The existing bridge would remain in operation throughout construction to maintain access to the private and public lands to the west of the project area. Temporary lane closures on Hot Springs Road would be necessary to accommodate construction activities, but at least one lane would remain open at all times. Traffic control measures would be used to alert travelers to the work area, any lane closures, and potential delays in accordance with "Temporary Traffic Control" requirements in the Caltrans Standard Specifications. These measures could include the use of traffic cones, signs, lighted barricades, lights, and flagmen. Advance warning signs for traffic will precede the work area by approximately 1,500 feet in both directions. Access will be readily available at all times for emergency vehicles.	Prior to and during construction	Construction contractor (implementation) County (monitoring)	
Air Quality/Dust Control Air pollution and dust control would conform to Caltrans Standard Specifications Sections 14-9.02 "Air Pollution Control" and 14.9-03 "Dust Control" and with Great Basin Air Quality Management District rules. The contractor would be required to implement a dust control program to limit fugitive dust emissions and submit a dust control plan to the County and air district for approval. If asbestos is present in the bridge structure, the County or contractor would need to notify the California Air Resources Control Board of bridge demolition in accordance with its rules and regulations for asbestos. The fugitive dust and emission controls identified in the dust control plan would include, but are not limited to, the following: ▪ Water inactive work areas and exposed stockpile sites at least twice daily or until soils are stable. ▪ Pursuant to California Vehicle Code, all trucks hauling soil and other loose material to and from the work area will either be covered or maintain at least 6 inches of freeboard (i.e., minimum vertical distance between top of load and the trailer). ▪ Any topsoil that is removed during construction will be stored on-site in piles not to exceed 4 feet tall to allow development of	During construction	Construction contractor (implementation) County and Air District (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
microorganisms prior to replacement of soil in the work area. These topsoil piles will be clearly marked and flagged. Topsoil piles that will not be immediately returned to use will be revegetated with a non-persistent erosion control mixture. ▪ Minimize idling time of vehicles and equipment and shut off equipment when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485). ▪ Maintain construction equipment in proper working conditions according to manufacturer's specifications, and check it daily to ensure it is in proper running condition before it is operated. ▪ Equipment or manual watering will be conducted on all stockpiles, dirt/gravel roads, and exposed or disturbed soil surfaces, as necessary, to reduce airborne dust.			
Erosion and Sedimentation Control The contractor would be required to implement water pollution control measures that conform to Section 13 "Water Pollution Control" of Caltrans Standard Specifications. The contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) that describes and illustrates placement of Best Management Practices (BMPs) within the work area. The SWPPP will be submitted to the County and Regional Water Quality Control Board for approval. The BMPs that will be implemented include, but are not limited to, the following: ▪ Exercise every reasonable precaution to protect Hot Springs Creek from pollution due to fuels, oils, bitumen, calcium chloride, and other harmful materials and conduct and schedule operations so as to avoid or minimize muddying and silting of the creek. ▪ Limit vegetation removal to areas necessary for bridge construction and associated activities. ▪ Use temporary devices, such as dikes, basins, ditches, straw, and seed, to prevent pollutants from entering the creek and to stabilize slopes. ▪ Install facilities and devices used for water pollution control practices before performing work activities.	Prior to and during construction	Construction contractor (implementation) County and Regional Water Board (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
▪ Install soil stabilization materials for water pollution control practices in all work areas that are inactive or before storm events. ▪ Repair or replace water pollution control practices within 24 hours of discovering any damage. ▪ 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. ▪ Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored. ▪ Implement spill and leak prevention procedures for chemicals and hazardous substances stored in the work area. ▪ Cover active and inactive soil stockpiles with soil stabilization material or a temporary cover and surround stockpiles with a linear sediment barrier. ▪ If fueling or maintenance must be done on-site, designate a location at least 50 feet from the creek and use containment berms or dikes to prevent hazardous materials from entering the creek. ▪ Prevent demolished material from entering the creek, such as through use of authorized covers and platforms to collect debris. ▪ Do not operate mechanized equipment in the active stream channel. ▪ Do not deposit material derived from roadway work in the creek channel, including along the banks, where it could be washed away by high stream flows. ▪ Install sediment control measures before the onset of any precipitation events during the construction season and monitor and maintain them in good working condition until disturbed areas have been revegetated.			
Hazardous Materials Control	Prior to and during construction	Construction contractor (implementation)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
If lead-based paint is present on the existing bridge, the contractor would remove and demolish it in accordance with methods approved by the U.S. Environmental Protection Agency. Acceptable methods include wet scraping or the use of a dustless needle gun connected to a vacuum unit with a high efficiency particulate air filter that empties directly into a waste container. The waste container would be properly documented and disposed of at a Class I landfill near the project area. Construction specifications will also include the following measures to minimize the potential for adverse effects resulting from accidental spills of pollutants (e.g., fuel, oil, grease): ▪ Implement a site-specific spill prevention plan for potentially hazardous materials. The plan will include the proper handling and storage of all potentially hazardous materials, as well as the proper procedures for cleaning up and reporting any spills. If necessary, containment berms will be constructed to prevent spilled materials from reaching the creek. ▪ Store equipment and hazardous materials a minimum of 50 feet away from any surface water feature. ▪ Maintain vehicles and equipment used during construction in proper working condition to reduce the potential for mechanical breakdowns leading to a spill of materials. Maintenance and fueling will be conducted in an area at least 50 feet away from surface water features or within an adequate fueling containment area.		County (monitoring)	
Prevention of Spread of Invasive Plants The contractor will be responsible for preventing the introduction or spread of invasive plants in the project area. During construction activities, the contractor will implement the following measures: ▪ Use only certified weed-free materials for erosion control (e.g., mulch, straw) and fill. ▪ Wash all equipment used for off-road construction activities prior to entering the project area to remove invasive plants or seeds.	Prior to and during construction	Construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
▪ Use only locally adapted native plant materials in any seed mixes or other vegetative material used for erosion control or revegetation of disturbed areas.			
Safety and Health Requirements The contractor would be required to follow all safety and health requirements set forth by the Occupational Safety and Health Administration. In addition, to prevent wildfires, the contractor would prepare and implement a fire safety plan for construction operations, such as welding, and use construction equipment equipped with fire prevention devices (e.g., spark arrestors) pursuant to Public Resources Code 4442. In compliance with Caltrans Standard Specifications and state regulations, the County will need to comply with the following standard noise reduction measures to prevent health or safety concerns relating to construction noise: ▪ Equip internal combustion engines with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler. ▪ Minimize idling time of vehicles and equipment and shut off equipment when not in use pursuant to California Code of Regulations (Title 13, sections 2449(d)(3) and 2485). ▪ Maintain construction equipment in proper working conditions according to manufacturer's specifications, and check it daily to ensure it is in proper running condition before it is operated. ▪ Maintain good communication with nearby residents and the Forest Service to minimize objections to unavoidable construction noise impacts.	Prior to and during construction	Construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
Post-Construction Restoration Disturbed areas outside of the new bridge location and roadway approaches would be restored to pre-disturbance conditions, which would include grading to prior contours and reseeding with native grasses. After removal of the existing bridge, excavated areas would be filled with native soil from the new bridge excavations. Natural regeneration of vegetation would be expected along the banks following bridge removal, and plantings are not expected to be necessary.	During and following construction	Construction contractor (implementation) County (monitoring)	
Biological Resources			
Mitigation Measure 1: Protect Special-Status Plants in the Project Area The County will retain a qualified botanist to implement the following measures to protect special-status plants in the project area: ▪ Two surveys for special-status plant species will be performed within a year prior to construction activities. These surveys should focus on areas where impacts to Jeffery pine and the bitterbrush habitats or the seep are anticipated. The surveys will be timed appropriately to coincide with the blooming periods for alder buckthorn (May-July), cut-leaf checkerbloom (May-September), Davy's sedge (May-August), golden violet (April-June), Liddon's sedge (May-July), mud sedge (June-August), scalloped moonwort (June-September), upswept moonwort (July-August), and western valley sedge (July-August). In the event that individuals or populations of these special-status plant species are found, the County will be notified and the area will be marked as an avoidance area both in the field, using flagging, staking, fencing, or similar devices, and on construction plans if avoidance is practicable. If avoidance of the special-status plant species is not practicable, the County will be notified and additional avoidance and minimization efforts (e.g., top soil stockpiling after the plants	Prior to and during construction	Qualified botanist and construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
have gone to seed) will be developed by a qualified biologist to ensure the plant population is not adversely affected. ▪ Information on the plants and avoidance area will be provided to construction crews as part of worker awareness training.			
Mitigation Measure 2: Protect Western Bumble Bee Hives/Nests in the Project Area The County will retain a qualified biologist to implement the following measures to protect western bumble hives/nests in the project area: ▪ 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 Forest Service. The County will inform Caltrans when such an activity occurs. ▪ Environmental awareness training will be conducted by a qualified biologist prior to the onset of the work for construction personnel to brief them on how to recognize western bumble bee nests and other special-status animals that may occur in the project area.	Prior to and during construction	Qualified biologist and construction contractor (implementation) County (monitoring)	
Mitigation Measure 3: Protect Nesting Special-Status and Migratory Birds and Raptors The County will retain a qualified biologist to implement the following measures to protect bird nests in and near the project area: ▪ To deter nesting under the existing bridge, the County will install an exclusionary device (e.g., netting) around the bridge prior to the initiation of the avian breeding season (before March 31) during the same year as bridge removal is proposed and after a qualified biologist has determined no nesting activity is present. The exclusionary device will remain in place until September 1 or until the bridge is demolished. The exclusionary device will be anchored such that birds cannot attach their nests to the structure through gaps. If birds begin building nesting on the bridge after installation of the exclusionary device, the County will coordinate with	Prior to and during construction	Qualified biologist and construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
CDFW/USFWS and will remove the nesting material in the presence of a qualified biologist to ensure the destruction of an active nest does not occur. Bridge removal may be delayed until the nests are no longer active. ▪ Because construction activities cannot avoid the avian breeding season, the County will retain a qualified biologist to conduct a pre-construction survey of the project area and a 250-foot buffer, as access is available, to locate active bird nests and identify measures to protect the nests. The pre-construction survey will be performed between April 1 and August 31, but no more than 14 days prior to the implementation of construction activities (including staging and equipment access). If a lapse in construction activities for 14 days or longer occurs, another pre-construction survey will be performed. ▪ If active nests are found during the pre-construction survey, the County will coordinate with a qualified biologist and CDFW/USFWS, as necessary, on additional protection measures, such as establishment of a buffer around the nest tree and/or biological monitoring. No construction activity will be conducted within this zone during the nesting season (April 1 and August 31) or until such time that the biologist determines that the nest is no longer active or the nesting activity would not be disrupted. The buffer zone will be marked with flagging, stakes, or other means to mark the boundary. All construction personnel will be notified of the existence of the buffer zone and will avoid entering the buffer zone during the nesting season. ▪ Information on nesting special-status and migratory birds will be provided to construction crews during the worker environmental awareness training.			
Mitigation Measure 4: Protect Natal Rearing Sites of White-Tailed Hare and Ring-Tailed Cat The County will retain a qualified biologist to implement the following measures to protect natal rearing sites of white-tailed hare and ring-tailed cat in and near the project area:	Prior to and during construction	Qualified biologist and construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
▪ Given that work will occur during the natal denning period for ring-tailed cat (March 1 to June 30), the County will retain a qualified biologist to conduct a pre-construction survey no more than 3 days prior to construction activities. If an active denning location is identified during the survey, the County will coordinate with a qualified biologist and CDFW, as necessary, on additional protection measures. ▪ The environmental awareness training will include information on white-tailed hare and ring-tailed cat. ▪ If white-tailed hare or ring-tailed cat is encountered in the project area during construction, work will stop and the individual will be allowed to freely egress the work area.			
Mitigation Measure 5: Protect Roost Sites of Pallid Bat and Western Red Bat The County will retain a qualified biologist to implement the following measures to protect roosting sites of pallid bat and western red bat in and near the project area: ▪ In conjunction with the pre-construction nesting bird survey (Mitigation Measure 3), a qualified biologist will conduct surveys of suitable roosting locations in and within 250 feet of the project area prior to the installation of exclusionary netting around the bridge. The pre-construction survey will be performed to determine if the existing vegetation or bridge is being used by western red bats or pallid bats as roosting locations. If the biologist finds evidence of bat roosts, the biologist should attempt to determine which species are present, which features are being used, and for which roosting purpose. If it is determined that roosting bats are not present or are only using the area as a night roost (i.e., no young are present in the roost), no further avoidance and minimizations measures are necessary. ▪ If during the survey, pallid bat or western red bat day roost or maternity roosts are identified in the vegetation or structure (e.g., the bridge) slated for removal, the County will coordinate with CDFW to determine the next steps and appropriate methods for removal. The installation of the exclusionary	Prior to and during construction	Qualified biologist and construction contractor (implementation) County (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
netting would help ensure roosting bats are not present under the existing bridge prior to demolition. Removal of the vegetation may need to be scheduled before the birthing season for bats (i.e., prior to May 1) or after young bats are able to fly (i.e., after August 31). Removal of active roosts should be conducted in a manner that allows the bats the best opportunity to leave during darker hours to increasing their chance of finding new roosts with minimum exposure to predation during daylight.			

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
Mitigation Measure 6: Comply with Permit Terms for Impacts on Waters of the United States and Minimize Disturbance to Water Features The County will comply with the terms of a Clean Water Act Section 404 permit issued by the U.S. Army Corps of Engineers and Section 401 water quality certification issued by the Lahontan Regional Water Quality Control Board for activities involving the discharge of fill material into Hot Springs Creek or wetlands. For activities in and along Hot Springs Creek, the County will also comply with terms of a Streambed Alteration Agreement with the CDFW (if determined necessary by the CDFW). The actual project impacts will be calculated once final designs are available and during the permit application process. Prior to any discharge of dredged or fill material into wetlands and other waters located in the project area or the removal of riparian vegetation, the required permits and authorizations will be obtained from the respective agencies. All terms and conditions of the required permits and authorizations will be implemented. In addition, the County will implement the following measures to offset and minimize impacts on water features: ▪ Based on the final designs, if unavoidable permanent impacts on wetlands in the project area are anticipated, the County will compensate for the loss of wetland functions through payment into an in-lieu fee program or mitigation bank identified in coordination with the Corps. The specific mitigation ratio will be identified in coordination with the Corps and will provide at least a 1:1 replacement ratio for impacts to mitigation. ▪ Constructed drainage ditches or channels should be placed along the western and eastern boundary of the new roadway alignment south of the bridge to convey runoff from the ephemeral streams towards Hot Springs Creek. ▪ The waters of the United States in the BSA will be identified on construction drawings, and those features that would not be affected will be demarcated in the field with flagging to identify the areas as off-limits to equipment, vegetation removal, and ground-disturbing activities.	Prior to and during construction	Construction contractor (implementation) County and Permitting Agencies (monitoring)	

Table 1. Construction and Mitigation Measures and Monitoring Requirements

Construction/Mitigation Measure	Timing	Responsible Party	Verification (Date/Initials)
Cultural Resources			
Mitigation Measure 7: Protect Cultural Resources Exposed During Construction The Caltrans standard policy for previously unidentified cultural resources states that "work be halted in that area until a qualified archaeologist can assess the significance of the find." In the event cultural resources (other than those determined to lack eligibility for either the National Register or the California Register) are unearthed inadvertently as a result of project-related activities, all work in the immediate vicinity of the discovery will be stopped, and the County and Caltrans will be notified. An archaeologist meeting the Secretary of Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be retained to evaluate the find and recommend appropriate conservation measures. Appropriate conservation measures shall be implemented prior to re-initiation of activities in the immediate vicinity of the discovery.	During construction	Construction contractor and qualified archaeologist (implementation) County (monitoring)	
Mitigation Measure 8: Protect Human Remains Exposed During Construction In the event that any human remains or any associated funerary objects are encountered during construction, all work will cease within the vicinity of the discovery. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the Alpine County Sheriff/coroner should be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent. The descendant will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects.	During construction	Construction contractor and qualified archaeologist (implementation) County (monitoring)	