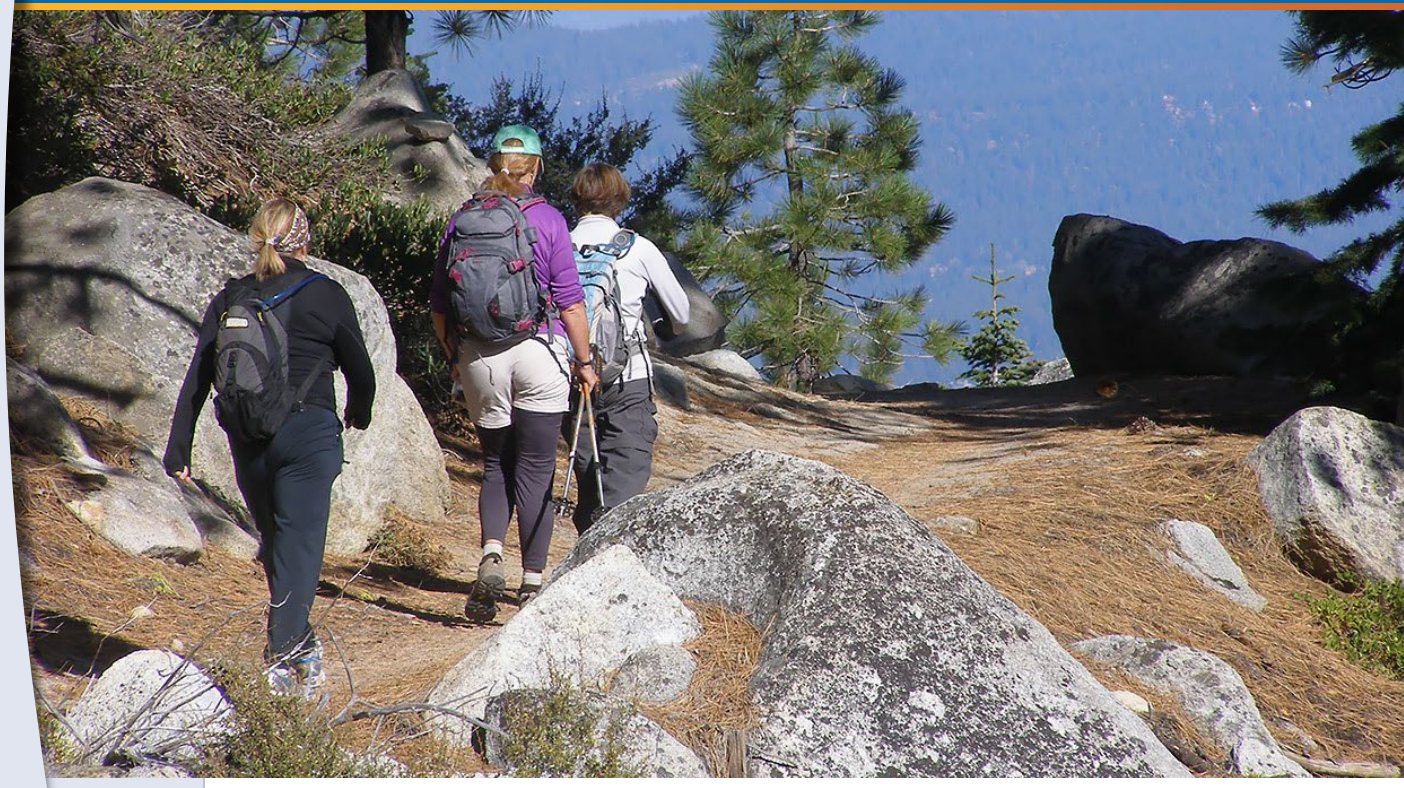
INITIAL STUDY/PROPOSED MITIGATED
NEGATIVE DECLARATION FOR THE

Lost Sierra Route: EZ Verdi Ridge Segment Project



Prepared for:

SIERRA NEVADA CONSERVANCY

April 2023

INITIAL STUDY/PROPOSED MITIGATED
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Lost Sierra Route: EZ Verdi Ridge Segment Project

Prepared for:

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April 2023

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ACRONYMS AND ABBREVIATIONS

IS/MND	Initial Study/Mitigated Negative Declaration
SNC	Sierra Nevada Conservancy
project	Lost Sierra Route: EZ Verdi Ridge Segment Project
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
BMP	Best Management Practices
gpm	gallons per minute
LOP	limited operating period
LSR	Lost Sierra Route
OHV	Off-highway Vehicles
PAC	Protected Activity Centers
TNF	Tahoe National Forest
cfs	cubic feet per second
project	Verdi Ridge Trail
NSAQMD	Northern Sierra Air Quality Management District
CAAQS	California Ambient Air Quality Standards
PM_{10}	particulate matter with an aerodynamic diameter of 10 microns or less
NAAQS	National Ambient Air Quality Standards
BMP	Best Management Practices
OHV	Off-Highway Recreational Vehicles
CRPR	California Rare Plant Rank
TNF	Tahoe National Forest
CWA	Clean Water Act
NAHC	Native American Heritage Commission
NAGPRA	Native American Graves Protection and Repatriation Act
MLD	Most Likely Descendent
GHG	greenhouse gas
AB	Assembly Bill
SB	Senate Bill
CCR	California Code of Regulations
TMDL	Total Maximum Daily Load
MAA	Management Agency Agreement
NPDES	National Pollutant Discharge Elimination System

RCO	Riparian Conservation Objectives
SNFA	Sierra Nevada Framework Amendment
SWRCI	Soil & Water Roads Condition Inventory
VMT	vehicle miles traveled
OPR	Governor's Office of Planning and Research

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Sierra Nevada Conservancy (SNC) to evaluate potential environmental effects resulting from implementation of the proposed Lost Sierra Route: EZ Verdi Ridge Segment Project (project). Section 2 "Project Description" presents the detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The Initial Study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 WHY THIS DOCUMENT?

As described in the environmental checklist (Chapter 3), the project would not result in any unmitigated significant environmental impacts. Therefore, an IS/MND is the appropriate document for compliance with the requirements of CEQA. This IS/MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. SNC is the CEQA lead agency because the SNC board in considering a discretionary action to approve funding for implementation of the project under SNC's Vibrant Recreation & Tourism Grant Program. The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. This IS/MND will be available for a 30-day public review period from April 18, 2023, to May 18, 2023.

Supporting documentation referenced in this document is available for review at:

Sierra Nevada Conservancy
11521 Blocker Drive, Suite 205
Auburn, CA 95603

Comments should be hand delivered to SNC at the address above, or provided by email to:

Shannon.Ciotti@sierranevada.ca.gov

If you have questions regarding the IS/MND, please call Shannon Ciotti at: (530) 906-7345. All comments must be received by May 18, 2023.

After comments are received from the public and reviewing agencies, the SNC may (1) adopt the MND and approve the project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, the project proponent may proceed with the project.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the project.

Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Cultural Resources
- Energy
- Geology / Soils
- Greenhouse Gas Emissions
- Hazards / Hazardous Materials
- Hydrology / Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population / Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities / Service Systems
- Wildfire

Potentially significant impacts were identified for biological resources, however, mitigation measures included in the IS/MND would reduce all impacts to a less-than-significant level.

1.4 DOCUMENT ORGANIZATION

This IS/MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description and Background. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a significant impact. If any impacts were determined to be significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SITE DESCRIPTION

The Verdi Ridge Trail (project) is a 15-mile-long segment of the larger Lost Sierra Route East Zone Connectivity Project, which is located in the eastern portion of Nevada and Sierra County on Tahoe National Forest Truckee and Sierraville Ranger Districts and Humboldt-Toiyabe National Forest (Figure 2-1). The project is located approximately 2.5 miles east of Boca and Stampede Reservoirs, and approximately 10 miles northeast of downtown Truckee. The proposed trail runs along a ridge of the Sierra Nevada Mountain Range; the Truckee River is located approximately 1.5 miles east. The trail would be accessed via Forest Road 72/Verdi Peak Road, which provides access to several locations near the center of the trail, or via East Boca Springs Road, which provides access to the southern end of the trail (Figure 2-2). If adjacent segments of the proposed Lost Sierra Route East Zone Connectivity Project are constructed, additional trail connectivity and access would be available via the Lost Sierra Route.

The project area is located on Tahoe National Forest System lands within three areas that exhibit high levels of existing motorized recreation use on the Truckee Ranger District: Verdi Ridge, Boca Hill and Prosser Reservoir, and the Hwy 89 south / 06 Road / Big Chief area connecting Truckee and Tahoe City. The project will serve the communities of Truckee, Loyalton, and Sierraville.

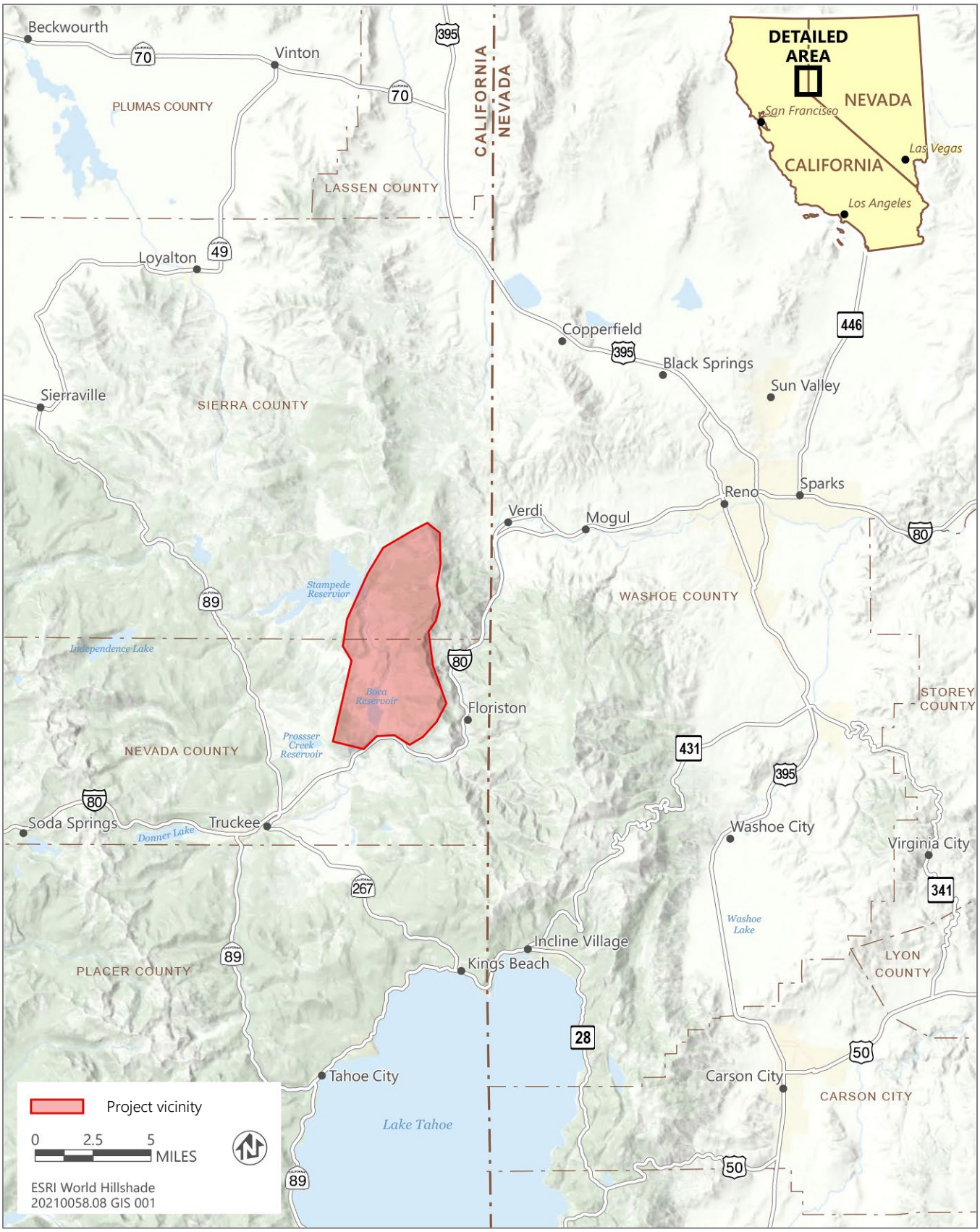
Trail characteristics on this 15-mile section of trail vary from mixed conifer forests to steep rocky outcrops which will allow for unique and technical trail building as well as user experiences. Dominant vegetation types in the project area include Jeffrey pine forest, bitter brush forest, and big sagebrush (USDA 2020a). Photographs of the project area are included in Figure 2-3).

2.2 PROJECT BACKGROUND AND NEED

The purpose of the project is to complete trail construction of a 15-mile-long segment of the Lost Sierra Route (LSR) that is part of the East Zone Connectivity and Restoration Project. The East Zone Connectivity and Restoration Project was reviewed by the US Forest Service pursuant to the National Environmental Policy Act (NEPA) and was approved by a Decision Notice signed March 21, 2021. The Verdi Ridge segment was identified as the optimal alignment to connect the Connected Communities project and LSR with the Town of Truckee in Nevada County.

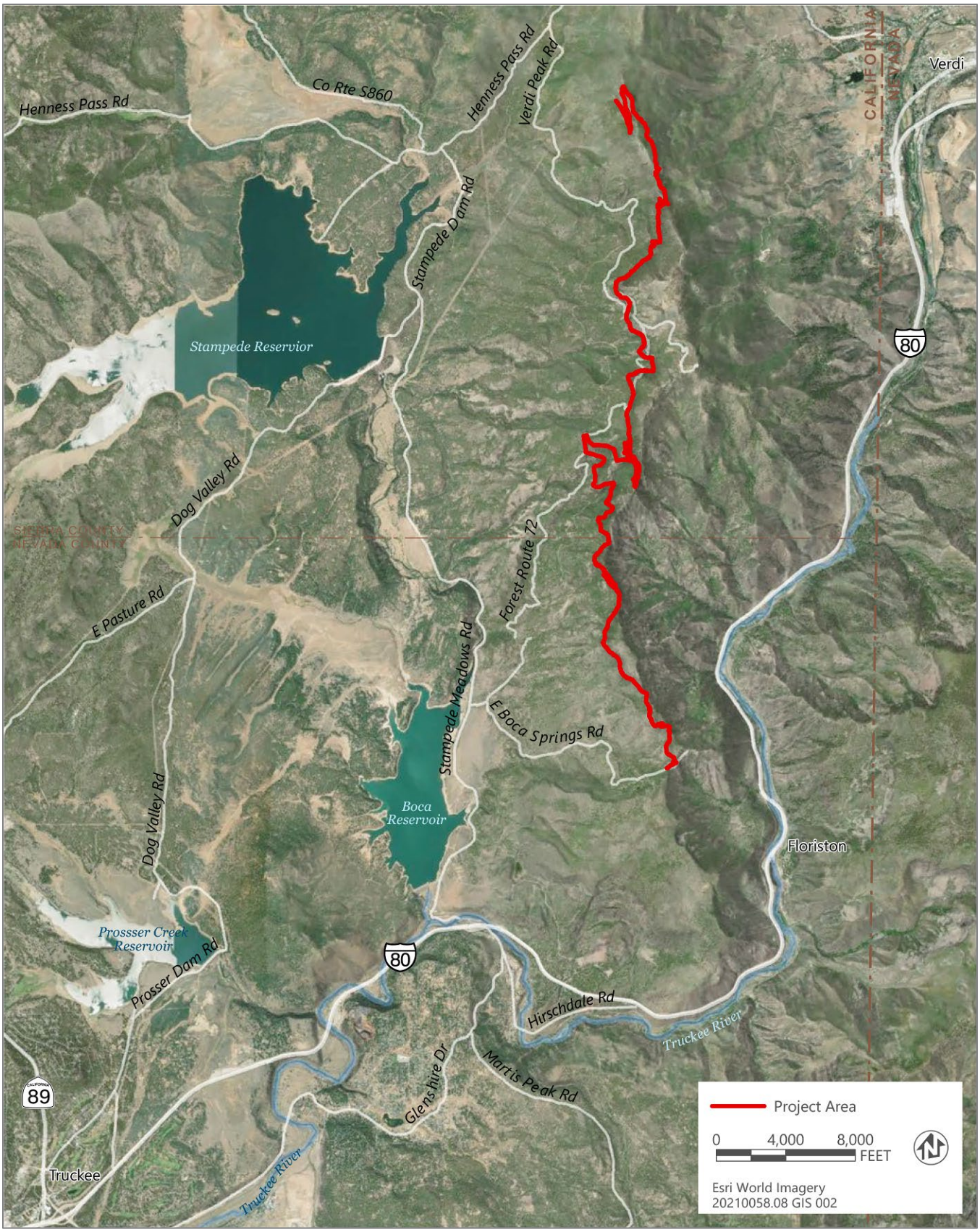
The project will improve recreation opportunities and restore watershed impacts on the forest by constructing a sustainable trail system while eliminating and rerouting existing unsustainable user-created trails. The project is needed due to increased demand for trail riding opportunities, and existing erosion and sedimentation, impacts to natural and cultural resources, ongoing trail maintenance requirements, poor trail drainage, fragmented trails, and public safety concerns as described in the East Zone Connectivity and Restoration Project Environmental Assessment (USDA 2020a).

The need for this project is directly related to providing world-class recreation opportunities for economically disadvantaged towns in Sierra and Nevada County. This project aims to provide recreation opportunities while protecting the natural and cultural resources of the area. This 15-mile-long Verdi Ridge segment of the LSR will connect to the proposed segments of the LSR to the north that will connect Sierraville and Loyalton.



Sources: adapted by Ascent Environmental in 2023.

Figure 2-1 Regional Location



Sources: adapted by Ascent Environmental in 2023.

Figure 2-2 Site Location

Source: USDA Forest Service. 2020. East Zone Connectivity and Restoration Project Environmental Assessment.

Photo 1: View southeast from Stampede Reservoir to Verdi Ridge (foreground) and snowcapped mountains that rim Lake Tahoe (background).

Source: USDA Forest Service. 2020. East Zone Connectivity and Restoration Project Environmental Assessment.

Photo 2: View from the South end of the Verdi Ridge Segment of the East Zone project, looking Southwest toward the trail intersection with Mill Spring Road and Boca Reservoir in the background.

Source: USDA Forest Service. 2020. East Zone Connectivity and Restoration Project Environmental Assessment.

Photo 3. View of the approved trail alignment at the beginning of the Verdi Ridge Trail as it leaves Mill Spring Road.

Source: USDA Forest Service. 2020. East Zone Connectivity and Restoration Project Environmental Assessment.

Photo 4. View of typical forest and terrain along the Verdi Ridge segment near its intersection with Verdi Peak Road.

Figure 2-3 Site Photos

2.3 PROJECT OBJECTIVES

This project's objectives are to:

- reduce impacts to natural and cultural resources from existing unmanaged recreational access;
- maintain or enhance the quantity, quality, and diversity of recreation opportunities on motorized trails;
- better manage and reduce road and trail maintenance needs; and
- improve overall access to, connectivity on, and public enjoyment of the National Forest Recreational Trails System in the project area.

2.4 CONSTRUCTION ACTIVITIES

The trail is designated as a single-track motorized multi-use trail and will be open for hiking, biking, motorcycles, e-bikes, and equestrian use. The trail will be constructed with native surface and material with a tread width of 18 to 36 inches wide. No import or off hauling of material would occur. When necessary, gravel and rock will be acquired on site. No bridges are proposed, although some puncheon (wooden walkways used to elevate the level of the trail tread) or turnpikes (elevation of tread with native material) may be necessary for wet areas.

Construction would involve cutting vegetation and using barriers and signing to encourage use of new or re-routed segments and discourage use of the old, unsustainable segments. An estimated 750–1,000 feet of new trail would be constructed per day, although that number would potentially increase in terrain with low gradients and relatively little vegetation and decrease in terrain with steeper gradients and additional vegetation or other terrain obstacles. A small trail dozer, excavator, or mini excavator may be used to conduct the work. In less accessible areas, supplies could be brought in with Off-highway Vehicles (OHVs). Additions and changes to motorized trails and roads would be displayed on the Motor Vehicle Use Map (MVUM), the legal document displaying designated motorized trails and roads. Equipment would be staged on site during construction. Construction and trail crews would generally work between 7:00 a.m. and 5:30 p.m. Monday through Friday.

2.5 SCHEDULE

Project construction activities are proposed to begin upon snow melt in 2023, and constriction is expected to be complete in December 2025 as shown in Table 2-1.

Table 2-1 Project Task and Deliverables

Project Task and Deliverables	Timeline
Construction of the 15-mile long Verdi Ridge segment of the LSR	2023-2025
Installation of project sign and wayfinding signs	Fall 2025
Implement Adopt-A-Trail Program	2024-2025
Estimated Project Completion Date	December 2025

Source: USDA 2020a.

2.6 PROJECT MONITORING

During implementation, US Forest Service resource specialists would monitor project activities to ensure adherence to resource protection measures, as outlined in the East Zone Connectivity and Restoration Project EA (USDA 2020a) and described in Section 2.6 below. Post implementation, regular monitoring patrols would be utilized to avoid the potential for additional impacts to the newly restored areas. Monitoring would include pre- and post-implementation site analysis.

2.7 GENERAL STANDARDS AND MANAGEMENT REQUIREMENTS

Trail construction standards, including Best Management Practices (BMPs) for trail construction as identified in Forest Service Trails Handbook (FSH 2309.18) and Specifications for Construction and Maintenance of Trails (EM-7720-103), and management requirements to protect public resources would be incorporated into trail design and construction. Trail construction standards address general standards (e.g., grade pitch, bench width, clearance), guidelines for preventing resource damage, creek or ephemeral drainage crossings, switchbacks and rolling turns, rolling/drain dips, grade reversals, and bermed turns. Forest Service management requirements applied to the project address aquatic wildlife, botanical resources, cultural resources, fire and fuels, herbicide treatment, invasive plants, recreation and visual resources, terrestrial wildlife, and watershed and aquatic resources. Management requirements are provided in Table 2-2. The implementation strategy, trail construction standards, and management requirements are presented in the EA Chapter 2 Proposed Action and Alternatives (pp. 14-21) (USDA 2020a).

Table 2-2 Management Requirements

Subject	Management Requirement
Aquatic Wildlife	**AW1: Barriers.** Ensure that materials used at stream crossings do not create barriers to upstream or downstream passage for aquatic-dependent species. **AW2: Riparian.** Where possible retain as much riparian vegetation canopy so that activities will not adversely affect water temperatures required for local species. **AW3: Hazardous spills.** Any hazardous spill event into the water shall be immediately contained and reported to the Forest Service dispatch, Forest Service Hydrologist, and Lahontan Regional Water Quality Control Board. **AW4: Survey** ▶ Survey any proposed water drafting locations for sensitive aquatic species within one week prior to potential use. Use drafting devices with 2-mm or less screening and place hose intake into bucket in the deepest part of the pool. Use a low velocity water pump and do not pump ponds to low levels beyond which they cannot recover quickly (approximately one hour). ▶ Survey for sensitive aquatic species, any areas where equipment may travel through stream habitat for OHV trail work within one week prior to potential disturbance. **AW5: Sightings.** If a sensitive or listed aquatic species is sighted within the project area, all work within 100 feet of aquatic habitat will cease immediately. Inform a Forest Service aquatic biologist of the sighting so that an appropriate course of action can be determined. **AW6: Tightly woven fiber netting** or similar material shall not be used for erosion control or other purposes within aquatic habitats to ensure aquatic wildlife do not get trapped, injured or killed. Plastic mono-filament netting or similar material shall not be used at any of these projects. **AW7: Drafting in fish-bearing streams.** The water drafting rate should not exceed 350 gallons per minute (gpm) for streamflow greater than or equal to 4 cubic feet per second (cfs) nor exceed 20 percent of surface flows for streamflow less than 4 cfs. For non-fish-bearing streams, the drafting rate should not exceed 350 gpm for streamflow greater than or equal to 2 cfs, nor exceed 50 percent of surface flows. Water drafting should cease when bypass surface flows drop below 1.5 cfs on fish-bearing streams and 10 gpm on non-fish-bearing streams (USFS Region Five BMP 2.5). **AW8: Herbicide Use.** Use of herbicide to treat invasive plants will be excluded from any areas where infestations overlap with potentially suitable Sierra Nevada yellow-legged frog habitat.
Botanical Resources	**BR1: Plumas ivesia (*Ivesia sericoleuca*).** There are known occurrences of Plumas ivesia in the project area. These areas will be identified on project maps, flagged in the field, and provided to contractors/staff. a) Avoid ground disturbing activities including but not limited to route construction, route decommission, temporary and permanent staging areas. b) Herbicide applications will not occur within 100ft of occurrences c) Use boulders or additional barrier construction where decommissioned routes intersect occurrences in order to minimize ground disturbance. Coordinate with Forest Service Botanist two weeks prior to implementation. **BR2: Preconstruction surveys for botanical resources.** Prior to implementation, conduct surveys for threatened, endangered, proposed, candidate, sensitive, and Watch list botanical species in areas of proposed ground disturbance.

Subject	Management Requirement
	BR3: Undetected botanical resources. Any additional TES or Tahoe National Forest (TNF) Watch list botanical species or other botanical resources discovered prior to or during implementation should be flagged and avoided completely until it can be assessed for impacts by District Botanist.
Cultural Resources	**CR1: Additional Survey.** Additional surveys for cultural resources may be required for areas outside of the current area of potential effect (i.e., staging areas or trail route adjustments). **CR2: Non-System Road or Trail Work within Sites.** Obliteration of non-system roads or trails within cultural resource sites may be conducted only with approval from a cultural resource specialist. **CR3: Additional Survey.** Prior to implementation, additional surveys for cultural resources may be required for areas of proposed ground disturbance outside of the current area of potential effect (such as route decommissioning).
Fires and Fuels	**FF1:** Leave access for fire suppression resources along roads and trails. **FF2:** Excess cut woody material. Scatter, chip, or remove
Herbicide Treatment	**HT1:** Spray Application a) Only ground-based equipment will be used to apply herbicides. b) All application of herbicides will cease when weather conditions exceed those on the label. c) Application of herbicides will not be performed when the National Weather Service forecasts a greater than 70 percent probability of measurable precipitation (i.e., precipitation greater than 0.1 inch) within the next 24-hour period. d) Application of herbicide will cease when wind speed exceeds 10 miles per hour. e) Spray nozzles will produce a relatively large droplet size (e.g., 500 to 800 microns) which are less prone to drift. f) Application of herbicide will be sprayed until targeted plants are wet and not dripping to help prevent leaching. **HT2:** Herbicides will be applied and mixed by trained and/or certified applicators in accordance with label instructions and applicable federal and state pesticide laws. **HT3:** Personal protective equipment will be used in accordance with the product label and California Department of Pesticide Regulation requirements. **HT4:** Application of herbicides within 20 feet of riparian vegetation or surface water must be approved by the hydrologist/natural resource specialist. Herbicide may not be applied directly to any surface water. **HT5:** Chemicals will be stored in designated storage facilities consistent with the Forest Service Manual (FSM) 2109.14, Chapter 40. Unused herbicides will be disposed of in accordance with the product label and FSM 2109.14, Chapter 40. If the product label and FSM differ, the more restrictive storage and disposal guidelines will be followed. **HT6:** Herbicide mixing will not occur within 150 feet of surface waters, except at existing facilities. **HT7:** A spill kit will be onsite at all times during herbicide application consistent with FSM 2109.14, Chapter 60. **HT8:** Adjuvants may be added, but only non-NPE (nonylphenol [NP] and nonylphenol ethoxylate]) surfactants will be used.
Invasive Plants	**P1: Avoidance areas.** a) Invasive plant infestations that have not been treated prior to implementation will be avoided with a 50-foot buffer. b) Avoidance areas will be flagged in the field, identified on project maps, and provided to contractors/staff. c) Coordination with the natural resource specialist will occur at least 60 days before implementation of planned treatments. **IP2: Equipment Cleaning.** All equipment and vehicles (Forest Service and contracted) operating off-road must be free of invasive plant material before moving into the project area. Equipment will be considered clean when visual inspection does not reveal soil, seeds, plant material or other such debris. Cleaning shall occur at a vehicle washing station or steam-cleaning facility before the equipment and vehicles enter treatment units. **IP3: Weed-free construction materials.** All gravel, aggregate, fill, mulch, topsoil, erosion control materials and other construction materials are required to be weed-free. When possible, use onsite materials, unless contaminated with invasive species. Otherwise, obtain weed-free materials from sources that have been certified as weed-free.

Subject	Management Requirement
	IP4: Project-related disturbance. Minimize the amount of ground and vegetation disturbance. As necessary, reestablish vegetation on disturbed bare ground to reduce invasive species establishment; revegetation is especially important in staging areas. **IP5: Revegetation.** Seed and plant mixes must be approved the District Botanist. Neither invasive species nor persistent non-natives will be used in revegetation. Seed lots will be tested for weed seed and test results will be provided to District Botanist. Seed and plant material should be collected from as close to the project area as possible, preferably from within the same watershed or at similar elevation. **IP6: Early Detection.** Any additional infestations discovered prior to or during project implementation should be flagged and avoided. Report new infestations to District Botanist. **IP7: Post Project Monitoring.** For projects involving ground disturbance or use of imported materials, notify the District Botanist after the project is completed, so that the project area can be monitored for invasive plants subsequent to project implementation (as funding allows). **IP8: Survey.** Prior to implementation, conduct surveys for invasive plants in areas proposed for ground disturbance. Additional surveys for invasive plants are needed if trail adjustments are outside of a 50-foot buffer from the originally proposed route.
Recreation and Visual Resources	**R1:** Construct trail tread by hand, or with small, mechanized trail equipment, or a combination of the two. Construct trail tread at a width no greater than 36 inches, most commonly ranging from 18 to 24 inches. **R2:** Incorporate rolling dips and/or reverse grades into the construction of the trail segments averaging around 100-foot spacing to ensure long-term drainage control. **R3:** At drainage crossings, move the spoils from trail construction away from the drainage to prevent entry into the waterway. **R4:** Minimize cut and fill slopes and cover with slash and forest duff to hide contrast of exposed soil. **R5:** At trailheads and near narrow precipitous segments, increase monitoring of use and install safety signage to educate and inform users. **R6:** Utilize native timber and rock materials when additional trail building materials are needed or use materials that match the color and texture of native materials.
Terrestrial Wildlife	**TW1: California spotted owl.** To protect nesting California spotted owl, no mechanized trail construction or chainsaw use will occur between March 1 and August 15 in Protected Activity Centers (PACs), unless surveys determine they are not nesting. Construction of new trail will remain outside a ½ mile buffer to be placed around all known current and historic nest locations. **TW2: Northern goshawk.** To protect nesting northern goshawk, no mechanized trail construction or chainsaw use will occur between February 15 and September 15 in Protected Activity Centers (PACs), unless surveys determine they are not nesting. Construction of new trail will remain outside a ½ mile buffer to be placed around all known current and historic nest locations. **TW3: Bats.** Report any bat roosts identified during project layout or trail construction to a wildlife biologist. Limit trail construction within 500 feet of identified roosts whenever possible. **TW4: Large trees and logs.** Locate trails to avoid cutting large trees, trees with evidence of wildlife use (e.g., cavities, nests, etc.), large snags, and large downed logs. **TW5: TES Species.** If any TES species (Federally threatened, endangered, proposed, or Forest Service sensitive species) previously unknown in the project area are detected or found nesting/roosting within 0.25 miles of project activities, appropriate mitigation measures would be implemented based on input from the aquatic biologist, botanist, and/or wildlife biologist. Measures can include, but are not limited to, flagging and avoiding a plant site, implementing a species specific limited operating period (LOP), or designating a protected activity center. **TW6: Raptor Nests.** If any active raptor nest is identified within the boundaries of, or directly adjacent to the project area (within 100 meters) during implementation, a buffer would be placed around the active nest and at the discretion of the District Biologist a species specific LOP may be put into place for the buffer zone. **TW7: Carnivore Nests and Denning Structures.** If any large stick nests or signs of active denning are observed or detected within or adjacent to the project area (within 100 meters), work will cease in the immediate area and the occurrence will be reported to the wildlife biologist to determine any potential need for further review and/or mitigation measures.
Watershed, Soils, and Aquatic Resources	**WSA1: Shallow stream fords.** When constructing shallow stream fords, locate in shallower portions of the stream, the approaches should climb a short distance above the typical high-water line so water is not channeled down the tread. Avoid locations where the stream turns, because the water will undercut approaches on the outside of

Subject	Management Requirement
	a turn. The tread in the ford should be level, ideally made of native rock or medium sized gravel that provides solid footing. The objective is to even out the water flow through the ford so the gravel-sized material is not washed away, leaving only cobble or boulders. **WSA2: Trail approaches to watercourse crossings.** Design watercourse crossings to avoid diversion of flow down the trail should the crossing fail. ▶ Where possible, make crossing approaches short and level, or reverse the grade if possible. ▶ Install cross drainage (cut-off water breaks) at crossings to prevent water and sediment from being channeled directly into watercourses. ▶ Locate cut-off water breaks as close to the crossing as possible without being hydrologically connected to the watercourse. ▶ Armor steep crossing approaches with stable aggregate or trailhardening materials. ▶ Where possible (for example, at bridges or arch culverts), reverse the grade of the crossing approaches so runoff drains away from the watercourse. **WSA3: Road/Trail decommissioning.** Administratively close decommissioned trail sections to continued use. ▶ Block access to and obscure the first 100 to 300 feet of the old trail at intersections with the new reroutes and place woody debris (no greater than 12 inches in height) on them to discourage any further use. Utilize regrading, bouldering, and covering regraded area with slash and forest duff as necessary. ▶ Install drainage structures so water does not concentrate on decommissioned routes. Mulch and or re-vegetate denuded areas with native materials and plants. ▶ Scarify top 2 to 4 inches of soil to promote water infiltration and return of vegetation. Maintain at least 70 percent effective soil cover prior to winter precipitation. If soil cover cannot be recruited on site, use biodegradable geotextile netting or a thick cover of weed free straw. **WSA4: Trail drainage.** Look for small draws to locate grade reversals. The trail should climb gently for a few feet on each side of the draw. Construct a trail grade that is less than half of the side-slope grade. For example, on a hill with 6-percent side-slope, trail grade should be no more than 3 percent. **WSA5: Region 5 BMPs and Trail Construction, Reconstruction and Maintenance standards.** Follow the Trail Construction Standards described in the TNF Trail Design Standards document and BMPs listed in the Region 5 Soil and Water Conservation Handbook, chapter 10, sections 4.7.1 to 4.7.8. Follow BMP 2.13 to effectively limit and mitigate erosion and sedimentation from any ground-disturbing activities. Develop an erosion control plan to include mitigation measures, requirements to meet BMPs, specifications and any federal or state permit requirements. **WSA6: Stream Channel Crossings.** The proposed crossings will be designed to slightly modify the existing channel without significantly changing capacity or channel form, without adding fill or excavating (dredge). The proposed design will be constructed to maintain flow capacity and only minor changes, rearranging in channel rock for ingress and egress are proposed. **WSA7: Storm Precipitation Action Plan.** Stop operations during periods of inclement weather (runoff producing rainfall or wet soil conditions) that create erosion or soil deformation (rutting) and implement temporary erosion control measures as needed until the site is dry enough to resume work. Provide erosion control measures on completed sections of trail or decommissioned sections of trail. **WSA8: Construction Dry Periods.** Dry period construction leads to increased pulverization of soils and an associated increase in the potential for air or water transport, as soils tend to be less cohesive when overly dry. Adequate water must be both made available for, and applied to, dry at-risk soils during construction to increase cohesion thereby minimizing these potential impacts. **WSA9: Refueling and Maintenance of Equipment.** Refueling and maintenance of equipment should be carried out in areas removed from drainages and riparian vegetation and outside of the stream environment zone (SEZ).

Source: USDA 2020a.

2.8 REQUIRED PERMITS AND APPROVALS

The proposed project occurs on Forest Service land and has been approved by the Forest Service in a Decision Notice (USFS 2021). No other permits or approvals are required for this project.

3 ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where noted below with a "Y" for yes, the topic with a potentially significant impact will be addressed in an environmental impact report.

- ☐ Aesthetics
- ☐ Agriculture and Forest Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Energy
- ☐ Geology / Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards / Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities / Service Systems
- ☐ Wildfire
- ☐ Mandatory Findings of Significance
- ☐ None
- ☒ None with Mitigation Incorporated

DETERMINATION

On the basis of this initial evaluation:

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.

Signature:_____ Date: April 14, 2023

Printed Name: Julie Alvis Title: Chief Deputy Executive Officer

Agency: Sierra Nevada Conservancy

Adoption of Mitigated Negative Declaration. Pursuant to Public Resources Code, Section 21082.1 of the California Environmental Quality Act, the Sierra Nevada Conservancy Governing Board has independently reviewed and analyzed the initial study and mitigated negative declaration for the proposed project and finds that the initial study and mitigated negative declaration for the proposed project reflect the independent judgment of the Sierra Nevada Conservancy Governing Board.

*Signature:_____ Date: _____

Printed Name: _____ Title:

Agency:

*To be signed upon completion of the public review process and after the Sierra Nevada Conservancy Governing Board considers the Mitigated Negative Declaration, any comments received, and if the Sierra Nevada Conservancy Governing Board adopts the Mitigated Negative Declaration.

EVALUATION OF ENVIRONMENTAL IMPACTS

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), 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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Environmental Setting

The Verdi Ridge Segment Project is located in the Tahoe and Humboldt-Toiyabe National Forests along the east side of the Boca and Stampede Reservoirs (Figure 2-1). The project area is on the western side of the Sierra Nevada Mountain Range in mountainous terrain. The Truckee River is located east of the project area. Dominant vegetation types in the project area include Jeffrey pine forest, bitter brush forest, and big sagebrush (USDA 2020a). Photographs of the project area are included in Figure 2-3. The visual setting is typical of higher elevation mixed conifer forests in the Sierra Nevada.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. The project area contains scenic vistas of the Boca and Stampede Reservoirs, meadows, forests, and mountains surrounding the site. The proposed project includes new trails and trail decommissioning in an area that already has Forest Service roads and OHV trails. In addition, proposed decommissioning activities may improve scenic views in areas where they are proposed, including the restoration of decommissioned trails. Project components would be small scale, and minimally evident since they consist of restoration and new trail development. Views of proposed actions would primarily be in the immediate foreground by users recreating on existing trails or

the trail features being proposed. Some of the proposed actions could be visible for very short periods of time from highly used travel ways in immediate foreground views but would be minimally evident to nonexistent in middle ground and background views (USDA 2020a; p. 47). Project activities could be visible during active periods of construction; however, these visual effects would be temporary and short-term. After completion of the construction phase, the trail would be minimally visible. Therefore, the proposed project would not adversely impact scenic vistas in the project area.

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

No Impact. There are no designated state scenic highways in the project area. Interstate 80, approximately 1 mile east of the project site, is eligible for listing as a state scenic highway (Caltrans 2023). The project site is not visible from Interstate 80 due to the steep rugged terrain, and tall evergreen trees between the highway and the closest project feature (a proposed new trail). Therefore, the project would not damage scenic resources within a state scenic highway.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. Although visual effects would vary by the location of each project component, none of the visual effects would be significant, and all of the visual effects would be compliant with the Forest Plan Visual Quality Objectives (USDA 2020, p. 47). Project components would be very small and minimally evident (since they consist of trail development or improvements). Trail building materials would be utilized from on site, including native timber and rock materials, or would be chosen to blend into the natural surroundings, and the trail alignment would be placed to take advantage of the natural terrain (USDA 2020a, see R6).

The most negative visual effects would occur during project construction. Small trail building equipment, dozers and excavators, construction signage, and increased dust and noise would be evident in the immediate foreground but only for short periods of time (days to weeks at a time). Evidence of trail grading, cut and fill slopes, rock placing, and decommissioned old roads and trails may be visible in the short term (less than 5 years) and would sufficiently blend into natural surroundings in a few years. Any short-term negative impacts would be reduced by implementing recreation and visual resources management requirements (USDA 2020a, see R1 through R6).

Overall, the actions of this project would result in minimal negative visual impacts and some positive visual impacts. Negative impacts from trail construction would be short-term, and longer-term visual effects from road decommissioning and restoration activities would be positive.

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

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

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

The project site is located in the Tahoe and Humboldt-Toiyabe National Forests on forested land. No farmland occurs in the area. The project area is not used for commercial timber, although selective timber harvest occurs in the project area as part of fuel reduction efforts to reduce wildfire risks.

3.2.2 Discussion

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

No Impact. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site (CDOC 2023). There would be no impact.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. There are no lands subject to Williamson Act contracts or zoned for agricultural use within the project site (CDOC 2023). There would be no impact.

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

Less-than-significant impact. Construction of the trail segment could convert small areas of forested land to recreational use. However, the new trail is not expected to require removal of mature and healthy trees, and the proposed restoration activities would help protect natural resources and promote forest health. The proposed project would support existing recreational and resource management uses in the forest and the project would not cause the rezoning of forest land or convert forest land to a non-forest use in the project area. Therefore, the project would not conflict with zoning for, or cause rezoning of, forest land or timberland, and would not convert significant areas of forest land to a non-forest use. Impacts would be less than significant.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Less-than-significant impact. See discussion c), above.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. See discussion a) and b), above.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Are significance criteria established by the applicable air district available to rely on for significance determinations? Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The project is within the eastern portion of Nevada and Sierra Counties within the Mountain Counties Air Basin, under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD). Sierra County has been designated as nonattainment with respect to California Ambient Air Quality Standards (CAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) but is designated as attainment for all other CAAQS and all National Ambient Air Quality Standards (NAAQS) (CARB 2022).

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. Trail construction for the proposed project would only occur between snow melt 2023 and December 2025. Construction would be limited to hand work and possibly some mechanized equipment, such as a small trail dozer, excavator, or mini-excavator. Some usage of mechanized equipment would be necessary, but truck trips to haul materials and debris would be limited, as native material will be used for the new trail segments. Construction would be temporary and conducted using the Forest Service's Best Management Practices (BMP's) as identified in the Forest Service Handbook (FSH 2309.18) and Specifications for Construction and Maintenance of Trails (EM-7720-103) as to have the smallest disturbance of the surrounding region. The BMP's include: removing minimal vegetation and ground cover during trail construction to maintain erosion and sediment control to minimize erosion, maintenance, and haul trips, not operating construction equipment to when ground conditions could result in excessive rutting or runoff, not permitting side casting of soil in the Streamside Management Zone, constructing OHV rolling dips when soil moisture is sufficient to allow adequate compaction of OHV rolling dip drainage structures, and

closing newly constructed trails for one season to allow consolidation of soils in treads and drainage structures to better withstand OHV traffic.

Once construction is completed, an increase in OHV activity along the trails is possible due to the existing demand for such uses. Motorized recreational activity already exists in this area, including on numerous user-created trails in the project vicinity. While the new trails may experience an increase in usage from OHVs, hikers, cyclists, and equestrians, emissions associated with this increased activity would be minimal because much of the OHV use already occurs in the project vicinity and would be re-directed from user-created trails to the new trail. Furthermore, in 2019 California amended Title 13 of the California Code of Regulations of Off-Highway Recreational Vehicles (OHV) and Engines to include more stringent exhaust and evaporative regulations for all OHVs. As the fleet turnover continues and cleaner, more efficient OHVs are being used, emissions will decrease. Even if usage increases, this increase would be minor and offset by cleaner emission standards such that it would not substantially contribute to or cause air quality violations.

For these reasons and because trail construction will be completed using BMPs, the proposed project would not obstruct implementation of the applicable air quality plan and the impact would be less than significant.

Emissions from construction and operation of the project would be minimal and would not 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. Furthermore, emissions during construction would be temporary and sporadic, and would occur in a rural setting away from homes. Recreational users near construction and operational sources may be exposed to occasional whiffs of gasoline exhaust, but this exposure would be temporary and not result in significant health effects. Thus, the project would not expose sensitive receptors to substantial pollutant concentration.

b) 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?

Less-than-significant impact. See discussion a), above.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. See discussion a), above.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No impact. The project does not include new odor sources (e.g., wastewater treatment plant, landfills). There would be no impact.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	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 Wildlife or the 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 Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (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?	☐	☐	☐	☒

3.4.1 Discussion

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

Less than significant impact with mitigation incorporated. Several special-status animal and plant species have potential to occur in the project area. The NEPA documents approved for the East Zone Connectivity and Restoration Project (USDA 2020) include specific project management requirements to minimize, avoid, or reduce potential

effects of project implementation on special-status species. The project management requirements that apply to the proposed project can also be found in Table 2-2. These project management requirements include, limited operating periods within buffer zones around territories/breeding sites of California spotted owl (*Strix occidentalis occidentalis*) and northern goshawk (*Accipiter gentilis*) to avoid project-related disturbances to these species during sensitive breeding periods. In addition, project management requirements would be implemented to protect botanical resources including Plumas ivesia (*Ivesia sericoleuca*), aquatic wildlife such as Sierra Nevada yellow-legged frog (*Rana sierrae*), Pacific marten (*Martes caurina*), and special-status bats.

A search of the California Natural Diversity Database (CNDDB 2023a) and the California Native Plant Society Inventory of Rare, Threatened, and Endangered plants (CNPS 2023) were performed to determine if special-status species, in addition to those previously addressed in the NEPA documents, could be affected by the proposed project. The CNDDB database query evaluated documented occurrences of state or federally listed species, including USFS sensitive species, within the Verdi, Mt. Rose Nw, Mt. Rose, Hobart Mills, Boca, Sardine Peak, Dog Valley, Martis Peak, and Truckee USGS 7.5'quads. The CNPS inventory query evaluated documented occurrences with a California Rare Plant Rank (CRPR) of 1 or 2 within the same nine quads listed above.

SPECIAL-STATUS PLANTS NOT PREVIOUSLY ANALYZED IN PROJECT NEPA DOCUMENTS

The database searches found 23 special-status plant species within the 9-quad search area. Of these species, 15 were not specifically addressed in the project NEPA documents. Eleven of the species not addressed in the project NEPA documents have potential to occur in the project area, and four species were dismissed from further analysis because the project area is at a higher elevation than the species' range of distribution. The scientific names, listing status, CRPR, habitat, and potential for occurrence determination for the 15 species not addressed in the project NEPA documents are listed in Attachment A, Biological Resources, Table A-1.

Eight of the species not previously addressed in the project NEPA documents that may occur in the project area; Mud sedge, English sundew, Alkali hymenoxys, Broad-nerved hump moss, Alder buckthorn, Robbins' pondweed, Bolander's bruchia, and Cut-leaf checkerbloom occur in wetland habitats. National Wetlands Inventory does not show any wetlands mapped within the project area, however small wetland features are generally too small to capture in desktop analysis and cannot be ruled out. Trail construction that occurs in wetland areas could result in soil compaction and vegetation removal that could directly affect species within the trail alignment. In addition, trail construction could result in altered hydrology, which can cause wetland species to not receive enough water. This can lead to a decrease in reproduction, overall vigor, or death. Galena Creek rockcress, threetip sagebrush, and Davy's sedge are also not addressed in the project NEPA documents and occur in upper montane conifer forest habitat, which is the largest habitat type in the project area. Trail construction activities that cause ground disturbance and vegetation removal could result in the loss of special-status plant species if they are present. The project would create permanent disturbance where overstory and ground-level vegetation would be removed for trail grading and brush clearing, and where equipment would operate on top of existing ground-level vegetation. Plants could be directly removed or damaged, including being broken, crushed, or buried. Damaged plants may experience altered growth and development, or reduced or eliminated seed-set and reproduction, and mortality of individuals or local populations could eventually result. Disturbance from trail construction, trail decommissioning, and ongoing maintenance activities could introduce invasive plant species to the project site and surrounding areas. Increased ground disturbance can create suitable habitat for disturbance-adapted invasive plant species. Traffic within the project site would increase during construction and there is a risk of invasive species being introduced or spread to currently uninfested areas via construction equipment and personnel. Invasive plant species can outcompete native vegetation and affect species composition, resulting in reduced habitat suitability for special-status plant species that are within or near the project site. Herbicide that is applied to invasive species could drift to nearby vegetation via wind, or leach into surrounding soils. This could cause mortality of special-status plant species that are near herbicide application sites.

Project management requirements to protect botanical resources (Table 2-2) and address invasive plants would be implemented that would reduce impacts to special-status plants including mud sedge, English sundew, alkali hymenoxys, alder buckthorn, Robbins' pondweed, hairy marsh hedge-nettle, cut-leaf checkerbloom, threetip sagebrush, and Davy's sedge (Meagher pers. comm. 2023). Project management requirement BR2 requires that

surveys for threatened, endangered, proposed, candidate, sensitive, and Watch list botanical species are conducted in areas of proposed ground disturbance before project implementation. Additionally, project management requirement BR3 requires any TES or Tahoe National Forest (TNF) Watch list botanical species or other botanical resources discovered before or during implementation be flagged and avoided completely until it can be assessed for impacts by the District Botanist. Project management requirements IP1 through IP8 include avoidance measures to prevent the spread of invasive plant infestations through pre-implementation surveys to identify infestations, equipment cleaning, using weed-free construction materials, minimizing ground disturbance, revegetation, and monitoring during and after implementation of the proposed project. Project management requirement HT1 prevents herbicide drift and leaching by prohibiting herbicide application during wind and wet weather events, using drip-application instead of spray, and using the minimum amount necessary to kill the target species. Additionally, HT2 requires consultation with a hydrologist/natural resource specialist to apply herbicides within 20 feet of riparian vegetation or surface water. Decommissioning user created roads and trails would reduce erosion, restore native topography, and increase the ecological functions and values of the overall project site; therefore, potential impacts to special-status plant species habitat would be minimized. With implementation of project management requirements and for the other reasons described above, potential effects of project implementation on botanical resources would not be substantial.

SPECIAL-STATUS WILDLIFE NOT PREVIOUSLY ANALYZED IN PROJECT NEPA DOCUMENTS

The CNDDB database search also found 18 special-status animal species within the 9-quad search area (CNDDB 2023a). Of these 18 species, nine were not addressed in the project NEPA documents. Of these nine species not addressed in the previous NEPA documents, two special-status species (yellow warbler and American badger) have the potential to occur within the project area based on species range and the presence of suitable habitat along the trail alignment. The scientific names, listing status, habitat, and potential for occurrence determination for the nine species are listed in Attachment A, Biological Resources, Table A-2.

Yellow warbler

Yellow warbler, a CDFW species of special concern, is most often found nesting in open canopy deciduous riparian habitats and may also nest in shrubs within open conifer forests. While the trail alignment does not cross any large areas of deciduous riparian habitats, the trail does pass through Sierra mixed conifer forest, and crosses several ephemeral drainages that may provide habitat suitable willows and other shrubs for nesting. Therefore, trail construction may occur with areas suitable for yellow warbler nesting. If trail construction occurs within the nesting season for yellow warbler (April 15 to August 15) (CWHR 2005), construction of the trail could result in direct removal of nests during vegetation removal, and the noise from construction could disturb nests of yellow warblers outside of the trail alignment. The direct removal of nests and the disturbance of nests by construction related noise may result in loss of eggs and chicks. The ongoing recreational use of the trail and trail maintenance following construction, may result in the area directly adjacent to the trail no longer being suitable for nesting by yellow warbler and yellow warblers may avoid building nests in this area due to the increase in disturbance along the trail. However, the area that would no longer be suitable yellow warbler would be small when compared to the amount of potential nesting habitat in the vicinity of the proposed project (USDA 2020). While the loss of nesting habitat would not be substantial, the loss of nests, eggs, and chicks would be a potentially substantial effect on the local and regional population of yellow warbler and a potentially significant impact.

Mitigation Measure BIO-1: Yellow Warbler Nest Surveys and Avoidance

To avoid or minimize impacts to yellow warbler, the project proponent will implement the following measures in, or within 30 meters of, habitat suitable for nesting.

- To the extent feasible, schedule work after August 15 or before April 15 to avoid the nesting period for yellow warbler.

- If work is required during the nesting season (April 15 to August 15), a qualified biologist will conduct a preconstruction survey to identify yellow warbler nests within 30 meters of the trail alignment. The survey will be conducted no more than 14 calendar days before the beginning of trail construction.
- If yellow warbler nests are located within 30 meters of the trail alignment, no construction will occur within 30 meters of the nest during the nesting season or until the young have fledged, as determined by a qualified biologist.

Significance after mitigation

With implementation of the Mitigation Measure BIO-1, which would avoid the potential injury or mortality of yellow warbler by requiring a limited operating period during construction within suitable nesting habitat, nest surveys if construction occurs within the limited operating period, and a 30-meter buffer around active nests, the impact of the proposed project on yellow warbler would be reduced to less than significant.

American Badger

American badger is a CDFW species of special concern that has been documented to occur within the project region near Verdi (CNDDB 2023a). American badgers are often found in open stages of shrub, woodland, and herbaceous habitats and dig burrows for shelter and reproduction (CWHR 1990). Within maternity dens, pups are present between mid-February and early July. The shrub dominated and open conifer habitats within the project area provided potentially suitable denning and foraging habitat for American badger. Construction of the trail could result in destruction of dens within the trail alignment, and disturbance of dens that are located adjacent to the trail alignment due to noise and vibration from construction and the presence of workers. If den destruction and disturbance occur within the maternity season for American badger, this could result in injury or death to American badger pups. However, project management requirement TW7: Carnivore Nests and Denning Structures (Table 2-2) would apply, and work would stop if any dens of American badger are observed within 100 meters of the trail alignment until the USFS biologist determines the need for further mitigation. This further mitigation may include establishing a buffer around the den to avoid den disturbance or destruction, establishment of a construction limited operating period in the area, or other similar measures. The ongoing recreational use of the trail and trail maintenance following construction, will likely result in the area directly adjacent to the newly constructed trail no longer being suitable for denning by American badger. However, the area that would no longer be suitable for American badger would be small when compared to the amount of open conifer and shrub habitat in the vicinity of the proposed project (USDA 2020). For the reasons discussed above the potential impacts of the proposed project on American badger would be less than significant.

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 Wildlife or the U.S. Fish and Wildlife Service?

Less-than-significant impact. Sensitive natural communities are defined by unique assemblages of vegetation that may include, or even be dominated by, relatively common species, but it is the assemblage of species that is rare. Most types of wetlands and riparian communities are considered sensitive natural communities due to their limited distribution in California. In addition, sensitive natural communities include habitats that are subject to USACE jurisdiction under Section 404 of the Clean Water Act (CWA), Section 1602 of the California Fish and Game Code, and the state's Porter-Cologne Water Quality Control Act. Sensitive natural communities are of special concern because they have high potential to support special-status plant and animal species. They can also provide other important ecological functions, such as enhancing flood and erosion control and maintaining water quality. Sensitive natural communities are identified at the alliance level using the Manual of California Vegetation Online (CNPS 2023).

There is potential for two sensitive natural communities to occur in the project area. The potential for sensitive natural communities to occur was determined by reviewing the list of CWHR types within the project area and reviewing range maps of sensitive natural communities found within those habitat types. The name, rarity rank, CWHR habitat type, and potential acreage within and outside of the proposed trail alignment for these two sensitive natural communities are listed in Table 3-1.

For the purpose of this analysis, the project vicinity is defined as the entire ridgeline of Verdi Ridge, a total area of 13,237.05 acres. The proposed trail alignment is defined as the 10-foot-wide line segment that includes brush clearing and trail construction, a total of 18.26 acres. The acreage in Table 3-1 reflects the total acreage of the CWHR habitat types within the trail alignment where sensitive natural communities may occur, which is the assumed maximum acreage of the impact to green leaf manzanita - pinemat manzanita chaparral and silver sagebrush wet shrubland within the project area.

Table 3-1 Sensitive Natural Communities within the Project Vicinity

Sensitive Natural Community	Rarity Rank[1]	Associated CWHR Habitat Type	Acres of CWHR Type Within the Proposed Trail Alignment	Acres of Habitat Outside of Proposed Trail Alignment, Within Project Vicinity
Green leaf manzanita - Pinemat manzanita chaparral	S3S4	Montane chaparral	5.15	4,904.36
Silver sagebrush wet shrubland	S3	Sagebrush	0.68	335.10

Notes: CWHR = California Wildlife Habitat Relationships

[1] Rarity Rank: State rarity rank S3: Vulnerable statewide. At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

State rarity rank S3S4: Vulnerable to apparently secure statewide. A Range rank (e.g., S2S3 or S3S4) is used to indicate any range of uncertainty about the status of the species or ecosystem.

Trail construction, ongoing trail maintenance, and recreational uses within the project area could adversely affect these sensitive natural communities through vegetation removal, soil compaction, and introduction of invasive weeds. However, the area of montane chaparral and sagebrush habitat within the 10-foot-wide corridor formed by the trail and adjacent vegetation clearing area would be small relative to the total area of these habitats within the project vicinity. Trail construction would affect 0.10 percent of the total montane chaparral habitat in the project vicinity, and 0.20 percent of sagebrush habitat. The impact areas are likely to be even smaller for the sensitive natural communities, considering that sensitive natural communities are not likely to be present within the entirety of these CWHR habitat type areas. Furthermore, because National Wetlands Inventory does not show any wetlands mapped within the project area, any potential wetlands that could support silver sagebrush wet shrubland in the project area would likely be small. Therefore, the potential acreage of disturbance for this sensitive natural community would likely be much smaller than 0.20 percent. Furthermore, decommissioning user created roads and trails that would reduce erosion, restore native topography, and increase the ecological functions and values of the overall project site, so potential impacts to sensitive habitat would be minimized. Lastly, project management requirements (Table 2-2) include avoidance measures to prevent the spread of invasive plant infestations through pre-implementation surveys to identify infestations, equipment cleaning, using weed-free construction materials, revegetation, minimizing ground disturbance, and monitoring during and after implementation of the proposed project. For the reasons discussed above, the impact from the proposed project on sensitive natural communities would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-significant impact. The project would cross several intermittent drainages that are potential waters of the United States and waters of the state. Project management requirements (Table 2-2) require that all shallow stream fords would be designed to even out the water flow through the ford, so the gravel-sized material is not washed away. In addition, trail approaches to watercourse crossings would be designed to prevent sediment from being channeled into streams. Furthermore, stream channel crossings would be designed to avoid significantly changing capacity or channel form, without dredge or fill. Furthermore, the project meets the requirements of the Lahontan Regional Water Quality Control Board and the CWA by implementing measures to maintain beneficial use and obtain water quality objectives (USDA 2020). For the reasons discussed above, the impact from the proposed project on state and federally protected wetlands and other waters would be less than significant.

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

Less-than-significant impact. The proposed trail would be a single-track (18-36 inch wide) motorized multi-use trail tread and would include a vegetation clearing area 10-feet wide. The trail will be open for hiking, biking, motorcycles, e-bikes, and equestrian use. The proposed trail is located within a moderate to low use portion of the Verdi-Truckee mule deer migration corridor (CNDDB 2023b). The construction of a single-track trail would not result in a physical barrier that would substantially interfere with the movement of mule deer along this corridor or of other native wildlife or fish. Furthermore, the recreation along this trail would not result in an increase in the amount of recreation in the area that would substantially interfere with wildlife movement, given the number of existing trails, and that the proposed trail will replace or reroute user created trails in the area. There are no documented wildlife nursery sites within the project area, and as such the project would not impede the use of any nursery sites. There is a migration stop over site near the project (CNDDB 2023b); however, this location is over the ridge from the proposed trail and is therefore screened from the disturbance that could result from construction and use of the trail. For the reasons discussed above the impact from the proposed project on the movement of any native resident or migratory fish or wildlife species, or native wildlife nursery sites would be less than significant.

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

No impact. The project will occur within Nevada County and Sierra County. The Nevada County General Plan and Sierra County General Plan both contain policies related to the protection of wildlife and vegetation. However, the proposed project will occur on federal lands and local ordinances and the policies within these general plans do not apply. Therefore, there is no conflict with local polices or ordinances, and no impact.

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

No impact. The proposed project would not be implemented within an area covered under an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Therefore, implementation of the proposed project would not conflict with the provisions of an adopted conservation plan and there would be no impact.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

A cultural resources inventory was prepared for the larger East Zone Connectivity and Restoration Project of which the proposed project is a part. Surveys of the trail area were conducted in 2018, 2019, and 2020 by archaeological technicians. Of the 26 documented sites, 5 sites were determined to be in the larger project area affected by trail construction, trail decommissioning, and restoration activities (Long 2018; Cook-Fisher 2020).

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less-than-significant impact. The project has been designed to avoid disturbance of known historical and archeological resources in the project area. The Forest Service would manage recorded historical and archeological resource sites in accordance with the provisions of the First Amendment to the Regional Programmatic Agreement 2018 (Programmatic Agreement). The Programmatic Agreement was adopted in 2018 by the US Forest Service Region 5, California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation. It streamlines implementation of Section 106 of the National Historic Preservation Act by identifying approved Standard Protection Measures and precluding the requirement for project consultation with the State Historic Preservation Office for undertakings that have little or no potential to affect historic resources. The Programmatic Agreements requires the identification of historic and archeological resources within a project's Area of Potential Effect, through record searches and field surveys consistent with established protocols. Appendix E: Standard Protection Measures, of the Programmatic Agreement identifies approved protection measures. This project would implement resource avoidance, which is an approved protection measure that involves completely avoiding effects on cultural resources, including through the establishment of buffers around identified resources. Buffer distances are developed by the US Forest Service Historic Program Manager in consultation with other parties, including Native American Tribes.

If any previously unknown historical and/or archeological resources are discovered during project implementation, operations would cease until analysis is conducted and protection measures are implemented, as needed, consistent with the Programmatic Agreement. Analysis and protection of previously unknown resources would involve consultation with the State Historic Preservation Office and Native American Tribes and application of appropriate protection measures. Therefore, effects would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less-than-significant impact. See discussion a), above.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less-than-significant impact. Although not expected, if human remains were inadvertently discovered, the Tahoe National Forest would follow the procedures as outlined in California Health and Safety Code section 7050.5 per the Forest Service Region 5 Programmatic Agreement with the California State Historic Preservation Officer (USDA et al. 2013). All project activities at the find site would come to a complete stop and no further excavation or disturbance of the area or vicinity would occur. The county coroner would be contacted immediately, and if the coroner determines or has reason to believe that the remains are Native American, the coroner would contact the Native American Heritage Commission (NAHC) within 24 hours of making this determination. Whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC follows the procedures as outlined in Public Resources Code section 5097.98.

Per the Programmatic Agreement, if the remains are determined to be Native American or if Native American cultural items pursuant to Native American Graves Protection and Repatriation Act (NAGPRA) are uncovered, the provisions of NAGPRA and its regulations at 43 CFR 10 and Archaeological Resources Protection Act at 43 CFR 7 would be followed on federal lands.

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

> In the event that human remains are accidently discovered, the project must come to a complete stop and no further excavation or disturbance of the area or vicinity will occur. The county coroner is to be called immediately to determine that the remains are of Native American ancestry. If the coroner confirms that the remains are Native American, within 24 hours of the discovery the coroner is to contact the [NAHC]. The NAHC will identify the person(s) believed to be the Most Likely Descendent (MLD), and the MLD will decide, along with the property owner, to appropriate treatment or disposal of the human remains and associated grave goods as provided in PRC §5097.98. If the NAHC cannot identify the MLD, the MLD fails to make a recommendation, or the property owner rejects the MLD's recommendations, the property owner can rebury the remains and associated burial goods in an area not subject to ground disturbance (14 CCR §15064.5).

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

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Environmental Setting

Energy consumption is closely tied to the issues of air quality and greenhouse gas (GHG) emissions, as the burning of fossil fuels and natural gas for energy has a negative impact on both, and petroleum and natural gas currently supply most of the energy consumed in California. Energy conservation refers to efforts made to reduce energy consumption to preserve resources for the future and reduce pollution. It may involve diversifying energy sources to include renewable energy, such as solar power, wind power, wave power, geothermal power, and tidal power, as well as the adoption of technologies that improve energy efficiency and adoption of green building practices. Energy conservation can be achieved through increases in efficiency in conjunction with decreased energy consumption and/or reduced consumption from conventional energy sources.

3.6.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-significant impact. The project would likely need to use a small dozer, excavator, or mini-excavator for the construction, a truck for haul trips, and potentially increase motorized use once the trail is constructed. Construction would be short-term (between snow melt 2023 and December 2025, subject to construction timing limitations in Mitigation Measure BIO-1) and only consist of a smaller mechanized equipment. Haul trips would be limited, as native materials will be used on the trail, and importing of outside materials would be limited. The trails would be constructed using BMPs and designed to be sustainable by including standard lines of site, gradient, turn radius and challenge.

Once the project in completed, operational use of the trail is expected to increase for equestrians, hikers, e-bikes, and motorcyclists. The trail will be designed with modern construction techniques, such as reverse grade dips, which allow for more natural drainage of water off the trail. Therefore, it is assumed that less long-term trail maintenance will be required, thereby reducing energy consumption from trail maintenance and vehicles. Thus, for these reasons, the project will not significantly impact the environment due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less-than-significant impact. See discussion a), above.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.7.1 Environmental Setting

REGIONAL GEOLOGY

The project site is located along the northeastern slope of the Sierra Nevada Geomorphic Province. The Sierra Nevada Geomorphic Province is a tilted fault block nearly 400 miles long. Its east face is a high, rugged multiple scarp, in contrast with the gentle western slope, which disappears under sediments of the Great Valley. Deep river canyons are cut into the western slope. Their upper courses, especially in massive granites of the higher Sierra Nevada, are modified by glacial sculpturing, forming such scenic features as the Yosemite Valley. The high crest culminates in Mount Whitney, with an elevation of 14,495 feet above sea level near the eastern scarp. The metamorphic bedrock contains gold-bearing veins in the northwest trending Mother Lode. The northern Sierra Nevada boundary is marked where bedrock disappears under the Cenozoic volcanic cover of the Cascade Range (CGS 2002).

LOCAL GEOLOGY, SOILS AND TOPOGRAPHY

The project site is located in the USGS Boca 7.5-minute quadrangle. The project site is underlain by the following geologic units:

- Q- Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated (areas close to the Boca Reservoir).
- Qv- Quaternary volcanic flow rocks; minor pyroclastic (volcanic) deposits (areas south and southeast of the Boca Reservoir).
- Tv- Tertiary volcanic flow rocks; minor pyroclastic deposits (areas north and northeast of the Boca Reservoir; south of Stampede Reservoir).

There are many soil types in the project area, but most are either lacustrine (lake) or volcanic in origin, with a texture of cobbly sandy loam, gravelly sandy loam, or sandy loam (NRCS 2023; DOC 2015b).

3.7.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

No Impact (Responses a[i] – a[iv]). Although California is a seismically active region, the project site is not in an area with significant seismic hazards. There are no Alquist-Priolo Earthquake Fault Zones in the project area. The closest fault to the project site is the Polaris Fault, located approximately 10 miles west of the site (DOC 2015a). The project site is not within an area of strong seismic ground shaking (CGS 2016). The project site is not within a seismic hazard zone for seismic-related ground failure, including liquefaction, or for landslides (DOC 2022). The proposed project is the development of new trails and restoration of decommissioned trail routes. The project does not include structures for human habitation that could be affected by seismic hazards. Therefore, the project would not directly or indirectly

cause substantial adverse effects involving seismic hazards. Project activities would not have the potential to exacerbate existing geologic conditions such as seismic-related ground failure, liquefaction, or landslides, or be likely to adversely affect existing geological conditions because the proposed project does not involve new major structures or major earthmoving activities and the site does not contain geologic hazards.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-significant impact. The proposed project would not result in substantial soil erosion or loss of topsoil. Construction of the proposed new trails would result in temporary soil disturbance on and adjacent to the work sites. However, management requirements incorporated in the project include a site-specific erosion control plan that would be implemented during construction to minimize erosion and loss of topsoil (USDA 2020a, see WSA5). In addition, one of the purposes of the project is to reduce erosion and sediment production through road decommissioning and restoration activities, including constructing milder trail grades and implementing a soil-saturation based model. Therefore, the project would not result in soil erosion or loss of topsoil and is expected to reduce erosion and sedimentation in the project area over the long term.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. The project site is not located in a seismic or geologic hazard area subject to landslides or liquefaction (DOC 2022). Lateral spreading involves the lateral movement of a liquefied soil layer caused by seismic shaking. Therefore, as the project area is not in a liquefaction hazard area, the risk of lateral spreading is also low.

Subsidence is the sinking of the Earth's surface in response to geologic or man-induced causes, most often caused by the removal of water, oil, natural gas, or mineral resources out of the ground by pumping, fracking, or mining activities. Additionally, subsidence can also be caused by natural events, such as earthquakes, soil compaction, sinkholes, erosion, and thawing permafrost (NOAA 2023). None of these causes of subsidence apply to the project area, and the project is not expected to result in on- or off-site subsidence. The proposed development of trails is surficial in nature and does not have the potential to become unstable resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Project activities would not exacerbate soil stability conditions.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

No Impact. Soils mapped at the project site are generally cobbly sandy loam, gravelly sandy loam, or sandy loam (NRCS 2023) and does not have a high clay content typical of expansive soil. The proposed project is the development of a new trail for recreation, and restoration of decommissioned trail routes. The project is surficial in nature and does not have the potential to become unstable due to expansion, creating a substantial risk to life or property. Project activities would not exacerbate expansive soil conditions.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project does not propose the installation of septic tanks or alternative wastewater disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Fossils form in certain sedimentary rocks, such as limestone, sandstones, or shales (AGI 2023). The project area is underlain by volcanic rock (DOC 2015b), and no fossils have been mapped in the project area (Macrostat 2023). In addition, the proposed project would not require extensive excavation or grading to construct. Therefore, the proposed project is not expected to impact paleontological resources. No unique geologic features are present in the project area.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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 an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature Prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative. The project is under the jurisdiction of the NSAQMD, which regulates air quality in Nevada, Sierra, and Plumas counties. However, the NSAQMD has not yet established significance thresholds for GHG emissions.

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). AB 197Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. CARB adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 16, 2022, which traces the State's pathway to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top-down, bottom-up approach under various scenarios. It identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste) to achieve these goals (CARB 2022).

3.8.2 Discussion

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

Less-than-significant impact. The Project's main purpose is to construct a single-track motorized multi-use trail. Thus, the Project does not propose any actions that would result in long-term GHG emissions. Because the trail will redirect user-created trails, the Project would not result in overall increases in GHGs from trail usage.

This project would involve construction equipment such as a small dozer or mini-excavator, construction signage, limited haul trips and an increase in trail usage afterwards, all of which would result in the release of GHG emissions. However, BMPs will be used to emit as little GHG emissions as possible. Hand tools will be used when possible and the small dozer or mini-excavator would only be used between snow melt 2023 and December 2025. Truck haul trips to remove debris and import new material for the project would be very limited, as native materials would be used for trail construction. These construction activities would result in minimal, temporary emissions during the construction period. Additional BMPs from the Forest Service Trails Handbook and Specifications for Construction

and Maintenance of Trails, would limit maintenance needs, thereby limiting GHG emissions from ongoing trail maintenance. These include avoiding cutting down trees whenever possible, giving trails time to settle during the winter, incorporating rolling dips or reverse grades to ensure long-term drainage control, utilizing native timber and rock materials when additional trail building materials are needed, and identifying road segments causing or threatening to cause adverse impacts to environmental resources to reduce erosion and sedimentation. Once the trail is constructed, the project area could see an increase in usage of the trail from motorcycles, hikers, equestrians, and bikers. While some increase in OHV use could occur, most of the motorized use along the trail is expected to be redirected use that would have occurred along user-created trails in the project vicinity without the project. The redirected use will decrease the need for road and maintenance, thus reducing the future GHG emissions from the user-created trails. Thus, the project would not substantially increase motorized trail use in the project vicinity as compared to the existing conditions. GHG emissions would be minimal and would not result in a significant increase in GHG emissions, as emissions would be limited to construction and a minor increase in OHV usage which would not substantially increase motorized use as compared to the existing conditions on user-created trails in the vicinity. For these reasons, the project would not directly or indirectly generate GHG emissions that would have a significant impact on the environment.

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

Less-than-significant impact. Construction is considered short-term, and according to the 2022 Scoping Plan and EO N-79-20, EO N-79-20 establishes a goal for California to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible. California aims to have 25 percent of energy demand from construction equipment to be electrified and 75 percent by 2045. Construction for this project will conclude by December 2025. As e-bikes and motorcycles continue to transition to fully electrical models by 2035 , the operational impact will lessen and eventually be no impact.

The project would not conflict with the 2022 Scoping Plan as construction and operational emissions would be minimal by using hand tools when possible, minimally using construction equipment, and ensuring long-term sustainability of the trail to achieve carbon neutrality. Construction will use BMPs such as using hand tools and ensuring the trail is sustainable so maintenance is minimal and as OHVs become cleaner and more fuel efficient, the operational impact will decrease. For these reasons, the proposed project will not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases and the impact will be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. Chemical and physical properties such as toxicity, ignitability, corrosivity, and reactivity cause a substance to be considered hazardous. These properties are defined in the California Code of Regulations (CCR), Title 22, Sections 66261.20-66261.24. A "hazardous waste" is any hazardous material that is discarded, abandoned, or to be recycled. The criteria that render a material hazardous also make a waste product hazardous (California Health and Safety Code § 25117). According to this definition, fuels, motor oil, and lubricants in use at a typical construction site and airborne lead built up along roadways could be considered hazardous.

The project area is currently forest land with forest service roads and recreational trails. There are no known hazardous materials sites in the project area.

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. Project construction would involve the use of hazardous fuels and fluids in the short-term. However, all hazardous construction materials would be transported, used, and disposed of in accordance with applicable federal, state, and local regulations. After construction, the new trail would not involve the routine transport, use, or disposal of hazardous materials over the long-term.

Aminopyralid is proposed for use in invasive plant management within the project area. A Human Health Risk Assessment for Herbicide Use was prepared for the East Zone Connectivity and Restoration Project that provides a detailed analysis of the potential risks of use of aminopyralid for invasive species control (Patterson 2020). The risk assessment is summarized in the East Zone Connectivity and Restoration EA (USDA 2020; pp. 35-36).

Herbicide would be applied in accordance with product label instructions, state and federal regulations, and Forest Service direction. Any potential worker or public exposure to herbicides would be greatly reduced if not eliminated through implementation of management requirements such as adherence to label instructions, use of personal protective equipment, and application by trained workers.

There exists a very limited potential of public exposure to herbicide from application as proposed in this project. All human health exposure scenarios related to the general public concerning aminopyralid resulted in a risk level below no observable adverse effect.

Potential risks from herbicide use to the public or the environment would be further avoided or minimized by the herbicide management requirements incorporated in the project. Impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-significant impact. See discussion a), above.

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

No Impact. The project area is in the Tahoe National Forest, and there are no existing or proposed schools within one-quarter mile of the area. There would be no impacts.

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

No Impact. No hazardous material sites are known to occur on or near the project site. The project site is not included on any list compiled pursuant to Section 65962.5 of the California Government Code (CalEPA 2023). According to the State Water Resources Control Board Geotracker map, there is one former hazardous materials clean-up site east of the Boca Reservoir involving a diesel spill at the Donner Summit Rest Area that is a closed case (SWRCB 2023). This spill location does not affect the project site. Therefore, the project would not create a hazard to the public or the environment due to hazardous materials sites. There would be no impact.

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

No Impact. The project site is not located within an airport land use plan area or within two miles of a public or public use airport. There would be no impacts.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project includes a new trail and restoration activities. There are no currently adopted emergency response plans or emergency evacuation routes in the project area. The project would not impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan. There would be no impacts.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less-than-significant impact. The project site is in a forested area where wildland fires may occur but is not located in a very high fire hazard severity zone (see section 3.20 Wildfire). The proposed project includes a new trail and restoration activities and does not include structures for human habitation. The project does not propose new land uses or buildings that would introduce new fire hazards, ignition sources, or exacerbate existing wildland fire hazards. Building materials include signs which are not highly flammable. The project also incorporates management requirements to reduce fire fuels and preserve fire suppression access. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Environmental Setting

The proposed project activities lie within the Boca Reservoir-Little Truckee River subwatershed, which ultimately drains into the Middle Truckee River. Within the project area, numerous springs and dry grass or meadow systems are found within the drainages mostly associated with fault and fracture systems in an otherwise arid landscape. Throughout the project area some existing and abandoned linear features now serve as conduits for concentrated runoff and experience vertical incision (Hutchinson and Falvey 2020).

The Water Quality Control Plan for the California Water Quality Control Board Lahontan Region (LRWQCB 2019) defines the beneficial uses for the Truckee River drainages and the Middle Truckee River to include the following: municipal and domestic water supplies, irrigation and water supply for agriculture, groundwater recharge, contact

and non-contact recreation, commercial and sportfishing, cold freshwater fisheries and spawning habitat, wildlife habitat, and rare, threatened or endangered species habitat. The beneficial uses of the Truckee River drainage basin also include the migration of aquatic organisms.

The Middle Truckee River has been listed by the State of California as being "water quality limited" for sediment under Section 303(d) of the Clean Water Act, and a Total Maximum Daily Load (TMDL) was developed to reduce sediment loading. The Truckee River and all its tributaries have been listed as an impaired waterbody (303d) through the Clean Water Act for high amounts of sediment based on a study reporting heavy sediment levels in the main stem of the Middle Truckee River (Hutchinson and Falvey 2020).

The Management Agency Agreement (MAA) between the State Water Board and Forest Service requires the Forest Service to implement the practices and procedures described below (Hutchinson and Falvey 2020).

> The Forest Service will identify, implement, maintain, and monitor [BMPs] to protect water quality. The strategy is to identify problem areas (related to sedimentation and erosion) on Tahoe National Forest lands and to track and report progress on TMDL targets for dirt road maintenance and legacy site restoration. Through this process, projects have been identified and prioritized for implementation to control sediment delivery from NFS lands for non-point sources.

The project would not require a CWA Section 404 permit or Section 401 Water Quality Certification. Consistent with Environmental Protection Agency decision-making, National Pollutant Discharge Elimination System (NPDES) permitting is not required.

The following Riparian Conservation Objectives (RCO) identified within the 2004 Sierra Nevada Framework Amendment (SNFA) are applicable to the Forest Service actions on the proposed project and correspond to relevant water quality objectives found within the LRWQCB basin plan (Hutchinson and Falvey 2020):

- RCO #1: Ensure that identified beneficial uses for the water body are protected. Identify the specific beneficial uses for the project area, water quality goals from the Regional Basin Plan, and the manner in which the standards and guidelines will protect the beneficial uses.
- RCO #2: Maintain or restore: (1) the geomorphic and biological characteristics of special aquatic features, including lakes, bogs, fens, wetlands, vernal pools, springs; (2) streams, including instream flows; and (3) hydrologic connectivity both within and between watersheds to provide for the habitat needs of aquatic-dependent species.
- RCO #5: Preserve, restore, or enhance special aquatic features, such as meadows, lakes, ponds, bogs, fens, and wetlands, to provide the ecological conditions and processes needed to recover or enhance the viability of species that rely on these areas.
- RCO #6: Identify and implement restoration actions to maintain, restore or enhance water quality and maintain, restore, or enhance habitat for riparian and aquatic species.

3.10.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-significant impact. The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Potential short-term and long-term effects of the proposed project, as well as the project's compliance with applicable water quality standards and waste discharge requirements, are discussed below.

Sediment Transport

Project activities would cause temporary ground disturbance that could affect runoff and sediment delivery to streams in the project area. Trails and routes can transport sediments when not constructed to drain properly or if

not maintained on a routine basis. Trails have a higher potential risk to increase soil erosion and subsequent sediment delivery to a water body compared with adjacent forested areas. The proposed project would improve existing hydrologic conditions by implementing watershed improvement actions along the proposed trail where drainage issues exist and reduce potential water quality issues associated with increased recreation. Ongoing and future management of the parts of the trail adjacent to waterways would reduce future impacts on water resources. Construction of the new trail would be completed using trail standard measures incorporated in the project to provide proper drainage within the road prism. Tahoe National Forest conducts ongoing surveys of trail conditions to assess maintenance needs using the Soil & Water Roads Condition Inventory (SWRCI) protocol, which rates trail segments as functional, at-risk, or impaired and aids in identifying problem areas.

Fuel Leaks and Spills

Trail building and restoration activities would include use of construction equipment, which could result in accidental release of fuels or fluids affecting surface and groundwater at the project site. However, the project includes management requirements to protect water quality such as erosion control BMPs, approved fuel storage and fuel filling sites, and specific design features for surface drainage.

Water Quality Objectives

The project incorporates measures that meet requirements of Riparian Conservation Objectives 1, 2, 5, and 6 and includes specific measures needed to reduce the potential for cumulative watershed effects and provides measures to assure compliance with applicable water quality control plans.

The proposed restoration actions would aid in reducing soil transport and sediment delivery to waters of the state and would improve the hydrologic integrity of stream crossings on routes and through meadow areas that have been identified to be at risk due to rutting or other impacts associated with the routes. The project incorporates measures to maintain beneficial use of state waters and to attain applicable state water quality objectives and includes monitoring to ensure the measures taken would be adequate to meet water quality objectives. As a result, there would be no irreversible or irretrievable water quality impacts from the proposed treatments and the requirements for the maintenance of water quality as established by the LRWQCB and the Clean Water Act would be met.

The proposed project is consistent with the TMDL MAA as a continuation of Forest Service effort to identify, implement, maintain, and monitor BMPs to protect water quality in the project area. The project is proposed in response to an identified problem related to sedimentation and erosion on the Tahoe National Forest lands and provides steps to promote sustainable recreation that would reduce impacts to the water quality and the hydrologic system that can result if recreation is unmanaged.

Impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed project would not include new impervious surface area or utilize groundwater. The new trail would be unpaved. No water would be supplied to the project. Therefore, the project would not decrease groundwater supplies or interfere with groundwater recharge. There would be no impacts.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) Impede or redirect flood flows?

Less-than-significant impacts. [questions C i through C iv] The project would not include the alteration of the course of a stream or a river. The project would improve existing hydrologic conditions by implementing watershed improvement actions along the proposed trail where current drainage issues exist and reduce potential water quality issues associated with increased recreation.

The new trail would not include crossings of any perennial stream corridors. Crossings at ephemeral drainages would be dry during construction activity and during the majority of the seasonal use period. Crossings have been located to avoid sediment production and/or delivery and include low gradient entrance and exit alignments, rock/gravel surface, and no change to existing stream channel course would occur. Trail construction standards and management requirements would be incorporated into the project to minimize erosion and sedimentation at stream crossings.

Although the project could increase erosion or siltation temporarily during construction, the project would decrease erosion and siltation in the long term. Project activities would reduce the potential for instream sedimentation by eliminating unsustainable user-created trails and implementing restorative actions. BMPs incorporated into the project would avoid or minimize erosion and siltation during construction. Proposed restoration activities would reduce erosion and siltation in the project area over the long term. Repair of hydrologic features like meadow complexes and stream channel current would reduce future resource damage. The project would promote natural recovery of disturbed areas by restoring the natural hydrologic function of the soil and reducing runoff and erosion. Therefore, the project would not result in substantial erosion or siltation on or off-site.

The proposed project would not include any new impervious surface areas. The new trail would be unpaved, and there are no existing or planned stormwater drainage systems in the project area. Therefore, the project would not increase the rate or amount of surface runoff or result in flooding on- or off-site.

The project would not impede or redirect flood flows. The proposed trail is not located within a flood zone (FEMA 2010), and no buildings or structures that could impede or redirect flood flows are proposed.

Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less-than-significant impact. The project site is not in a flood hazard zone (FEMA 2010). In addition, the project is not near the coast, and thus is not at risk of inundation by tsunami. The risk of inundation by seiche from the Boca Reservoir is considered to be low because the project area is not in an earthquake hazard zone, the project is not adjacent to the reservoir, and the project includes a new trail and restoration in an area that already has recreation and resource management uses. No houses or structures for human habitation are proposed, and the project would not exacerbate existing risks associated with inundation by seiche. Impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-significant impact. The project would not conflict with the Water Quality Control Plan for the Lahontan Region (LRWQCB 2019) with the management requirements incorporated in the project for water quality protection. WSA5 specifically requires implementation of BMPs to address erosion and sedimentation associated with trail construction, reconstruction, and maintenance and specifications to meet federal and state permit requirements. No sustainable groundwater management plan applies to the project area. All impacts would be less than significant.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

The project area is entirely within federal land managed by the US Forest Service, and is not subject to local zoning. The site is currently occupied by primarily Jeffrey pine forest and big sagebrush crossed by several ephemeral streams and forest service roads. The primary existing land uses are natural resources management and recreation, including OHV recreation.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. The project would not physically divide an established community. The project includes a new trail and restoration activities to improve recreational opportunities and natural resource management in the project area. The project site is in the Tahoe and Humboldt-Toiyabe National Forests and there are no established communities in the project area. There would be no impacts.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project would not violate any federal laws and regulations governing land use. The project area is managed by the US Forest Service. The proposed project addresses management of recreational trails as an existing use. The Forest Service determined this project is consistent with the applicable federal land use plans (USFS 2021).

The project maintains consistency with management direction as defined for the Tahoe and Humboldt-Toiyabe National Forests. The Forest Plans provide direction for maintaining water quality and quantity; protecting streams, lakes, wetlands, and riparian conservation areas; and to prevent excessive, cumulative watershed impacts. The proposed action follows Riparian Conservation Objectives and is consistent with the Aquatic Management Strategy for the Sierra Forests, as required by the SNFPA ROD.

The project is on national forest land and is not governed by state or local land use laws or regulations. There would be no impacts.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No impact. No known mineral resources, or the presence of a significant mineral deposit, are identified on the project site (DOC 2023). Additionally, the proposed project would not reduce the availability of mineral resources, if they did occur within the project site. Thus, the project would have no impact.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. See question a), above.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Environmental Setting

The State of California General Plan Guidelines 2017, published by OPR (OPR 2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the state Sound Transmissions Control Standards, the state's general plan guidelines recommend interior and exterior CNEL of 45 and 60 A-weighted decibels (dBA; adjusted for the range perceptible by the human ear in which decibel values of sounds at low frequencies are reduced) for residential units, respectively.

3.13.2 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?

Less-than-significant impact. Construction would be necessary for the proposed project and could include a mini dozer or excavator, worker trips, and construction signage. The equipment would generate varying levels of noise depending on the equipment being used, and the location of the noise throughout the project area. However, these activities will be located in rural regions, where sensitive receptors would not be affected. Additionally, noise would

be short-term, during daytime hours, and would not be considered substantial or exceed noise ordinances. This impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. As described in question a), a mini dozer, mini excavator, worker trips, and construction signage could be used during construction. This equipment could generate groundborne vibration or noise levels. However, activities will be located in rural areas for a short duration, during daytime hours. Thus, they would not be considered excessive. This impact would be less than significant.

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

No Impact. Airstrips are not located within the vicinity of the project area. The two nearest airstrips would be the Truckee Tahoe Airport and the Reno-Tahoe International Airport; located over 4 miles and over 14 miles away, respectively. There would be no impact.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

The project area is on public land in the Tahoe and Humboldt-Toiyabe National Forests. There is no existing housing or permanent residents located in the project area. The nearest populated area is the Town of Truckee, approximately 8 miles southwest of the project area.

3.14.2 Discussion

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

No Impact. The project could increase recreational use of the Boca and Stampede reservoirs region (USDA 2020a; p. 58). The expected users include not only motorcyclists, but also mountain bikers looking for long distance trails, E-bikers, hikers, and equestrians looking for new opportunities. The increased use could come from local, regional, or statewide recreationists drawn to the project area. However, the project is not expected to attract new permanent residents to move to the project area. The project does not include new homes, businesses, roads, or other infrastructure. Therefore, the proposed project would not induce substantial population growth in the project area, either directly or indirectly.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace any housing or people as it does not involve the removal of existing housing.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

3.15.1 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?

No impact. Although the project would likely increase recreational use of the project area, implementation of the project would not include new residences or otherwise create a situation in which fire protection service ratios, response times, or other performance objectives could not be met. The project does not include provisions of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. Thus, there would be no impact.

Police protection?

No impact. Implementation of the project would not include new residences or otherwise create a situation in which police protection service ratios, response times, or other performance objectives could not be met. The project does not include provisions of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. Thus, there would be no impact.

Schools?

No impact. The project does not include development of new residences and therefore would not result in a substantial effect on the permanent population in the area that would increase the demand for educational services. Implementation of the project would have no impact on schools.

Parks?

No impact. Implementation of the project would not include new residences or otherwise create a situation in which there would be an increased need for parks. Thus, there would be no impact.

Other public facilities?

No impact. As discussed above, implementation of the project would not include new residences or otherwise create a situation that would require provisions of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. Thus, there would be no impact.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.16.1 Environmental Setting

Through the 1990's and 2000's recreational vehicle travel has grown substantially in popularity for individual and family outings. The increase in demand for recreational opportunities has outpaced the number and diversity of OHV routes available for public use (USDA 2020a). Currently there are approximately 26 miles of designated single-track motorized trail on the Truckee Ranger District and the public demand for motorized trails has steadily increased. and growing mileage of unauthorized user created trails. Additionally, improvements in vehicle capabilities have led to users to open up old skid roads, haul routes, and other landscape features that were never intended for sustained recreational use. Increased motorized recreational use on the limited designated OHV system on the Truckee Ranger District has required increasing maintenance frequencies using specialized trail equipment (USDA 2020a).

The project area contains designated motorized vehicle routes and or trails which do not connect to other motorized trails, thereby limiting loop riding opportunities and trail connectivity. Some of the existing roads and trails in the project area are illegal routes or have been found to be problematic (i.e., not designed for OHV use, prone to erosion or hydrological interruption, etc.). The existing routes do not provide connectivity (i.e., loop trails) and are inadequate to meet recreational demand in the project area. Under existing conditions, OHV enthusiasts, especially those on non-highway-legal vehicles, are required to frequently return to their staging location, load their vehicles, travel to the next staging location, and unload their vehicles again before returning to the trail. The lack of a sufficient number of well managed staging areas also creates barriers to public enjoyment of the Tahoe National Forest recreational roads and trails system (USDA 2020a).

3.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less-than-significant impact. The project area is in within National Forests and does not contain neighborhood or regional parks, though existing recreational facilities such as camping areas and roads and trails for motorized and non-motorized recreation do exist in the project area. Development of the Verdi Ridge Segment will significantly increase the miles of single-track trail available to OHV enthusiasts by 15 miles. Additionally, the new trail would improve user access and increase motorized loop riding opportunities. Although the project would increase the use of the project area (USDA 2020a, p. 58), the increased use would not result in substantial physical deterioration of the

recreational facilities but rather would be designed to address the existing and growing demand for OHV and non-motorized recreation in the project area and implement management requirements that would protect resources and improve public safety.

Developing well aligned routes to connect existing fragmented motorized trails would provide longer, motorized trail rides and increase motorized loop opportunities. Decommissioning unauthorized and problematic trails and constructing new sustainable trail segments would improve the physical condition of recreational facilities in the project area compared to existing conditions and would promote favorable conditions for the future. The proposed new trails would increase the variety of motorized trails rated as Beginner to Most Difficult and would promote a constantly learning and challenging experience while fostering opportunities for both individuals and families. After construction, the new trail would be periodically maintained as part of the Tahoe National Forest's regular maintenance program. Thus, the project would not significantly impact recreational facilities but would benefit them. The proposed project would help to maintain or enhance the quantity, quality, and diversity of recreation opportunities on motorized trails, better manage and reduce road and trail maintenance needs, and improve overall access to, connectivity on, and public enjoyment of the National Forest Recreational Trails System in the project area.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less-than-significant impact. The proposed project includes a new 15-mile single-track trail for motorized and non-motorized recreation. The project also includes decommissioning of illegal and problematic routes (i.e., not designed for OHV use, prone to erosion or hydrological interruption, etc.) and other restoration activities to reduce sedimentation and improve water quality. Standard measures and management requirements are incorporated in the project to avoid or minimize adverse physical effects of the project (USDA 2020a, pp. 14-21).

Increased demand for OHV trail recreation on a limited trail system has led to the creation of unauthorized, user created road and trail segments with designs and alignments that threaten the integrity of the watershed and its many riparian corridors, including wetland / meadow complexes, as well as the Forest Service's ability to protect natural and cultural resources. The Verdi Ridge project activities would develop new sustainable trail routes on an existing trail system and would remove unauthorized routes where they are redundant or causing extensive resource damage. Overall, the project is expected to reduce adverse physical effects on the environment such as water quality impacts and vegetation impacts from existing illegal or problematic OHV routes.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

3.17.1 Environmental Setting

Regional access to the project area is provided by Interstate 80, a transcontinental highway that runs west-east from San Francisco, California to Teaneck, New Jersey. Local access is provided by Stampede Meadows Road and Boca Road, which runs along the east side of the Boca Reservoir.

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. The proposed project includes a 15-mile new trail segment of the larger Lost Sierra Route East Zone Connectivity Project. The Verdi Ridge Trail segment will be used for motorized and non-motorized recreation and habitat restoration near the Boca Reservoir in the Tahoe and Humboldt-Toiyabe National Forests. The project is designed to improve trail connectivity for motorized and nonmotorized recreation and improve water quality and protection of natural resources in the project area. The project would not affect the existing local or regional circulation system, including transit, roadway, bicycle, and pedestrian facilities.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less-than-significant impact. Per CEQA Guidelines section 15064.3(a), vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. The Governor's Office of Planning and Research (OPR) has established proposed thresholds that may be used by jurisdictions for the evaluation of VMT impacts for different land use types. At this time, there are no VMT thresholds applicable to recreational land use identified by OPR in its Technical Advisory on Evaluating Transportation Impacts in CEQA. Further, the Forest Service does not have standards or guidelines regulating VMT on national forests.

Due to the nature of the project location and type of recreational use, the number of vehicle trips or VMT likely to occur as a result of the project cannot be readily quantified. The Verdi Ridge Trail is a 15-mile trail segment of the

larger Lost Sierra Route East Zone Connectivity project. The larger project contains three new staging areas outside the vicinity of the Verdi Ridge Trail that would formalize parking areas on open sites where informal parking presently occurs. No new parking areas would be needed or constructed for the Verdi Ridge Trail segment.

Although it is expected that many of the visitors using the trail already recreate at this project location, the availability of new trail would likely increase the recreational use of the project area. The OPR Technical Advisory acknowledges that absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer daily trips could be considered not to lead to a significant impact. Given that this project serves an established trail system and that the existing staging areas formalize parking at existing use areas, it is likely that a substantial portion of these vehicle trips are not new trips but occur from park visitors who already recreate at the project site. Therefore, it is reasonable to conclude that the project is unlikely to add more than 110 daily vehicle trips and the project would not have a significant VMT impact.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would not include hazardous design features or incompatible uses. The project is designed to reduce risks to public safety by rerouting and improving trails, promoting safer and more sustainably designed trails, dispersing current use across more area decreasing user density, and improving current watershed conditions. Existing signage advises recreationists about trail difficulty and multiple trail uses to reduce the risk of accidents. Increased and improved signage, designed to promote responsible trail use and user etiquette, would improve safety for all user groups. The Tahoe and Humboldt-Toiyabe National Forest expects all uses to increase over time; however, public safety for trail users would improve due to increased opportunity, which disperses multiple users across more acreage and reduces relative density of users and use impacts, area by area. Trail guidelines used for building sustainable trails and preventing resource damage limit steep grades and fall-line alignments. New alignments and site-specific trail maintenance objectives would increase sight distances so that users would be able to see other groups from further away. Sustainable alignments use turns and switchbacks, slow user speeds, and reduce the likelihood of collisions. Treatments that improve trail conditions would improve safety for the public.

d) Result in inadequate emergency access?

No Impact. Project related work would not affect existing traffic patterns or emergency access routes. New staging areas, which are outside the scope of the Verdi Ridge Trail but part of the larger Lost Sierra Route East Zone Connectivity Project, would be designed to current Forest Service transportation standards and guidelines which allow access for larger vehicle types and or vehicles towing trailers; this would provide for reasonable access for emergency vehicles.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources. Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)? Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☒	☐

3.18.1 Environmental Setting

Assembly Bill (AB) 52 created a formal CEQA role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: a) Included or determined to be eligible for inclusion in the California Register of Historical Resources; or b) Included in a local register of historical resources as defined in PRC section 5020.1(k)
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC section 5024.1 (c). In applying the criteria set forth in PRC section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC section 21084.1, a unique archaeological resource as defined in PRC section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC section 21083.2(h) may also be a tribal cultural resource if it conforms with the above criteria.

AB 52 requires a lead agency, before the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. AB 52 states: "To expedite the requirements of this section, the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area."

SNC conducts tribal outreach pursuant to AB 52 with tribes that are traditionally and culturally affiliated with the geographic area of a project based upon a list generated by the NAHC. Consistent with the NAHC list, SNC sent a consultation request notification to the following eight Tribes on March 18, 2023: Colfax-Todds Valley Consolidated Tribe, Greenville Rancheria of Maidu Indians, Mooretown Rancheria of Maidu Indians of California, Nevada City Rancheria – Nisenan Tribe, T'Si-akim Maidu, United Auburn Indian Community of the Auburn Rancheria of California, Washoe Tribe of Nevada and California, and Wilton Rancheria. To date, none of the Tribes have requested consultation or identified Tribal Cultural Resources that would be affected by the project.

3.18.2 Discussion

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

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No Impact. The proposed project involves the construction of a 15-mile-long segment of the Lost Sierra Route Trail within the East Zone Connectivity and Restoration Project. The project activities would not change the existing land use of the area and would not substantially alter the landscape. No tribal resource concerns were raised in response to the tribal outreach efforts. The project would not affect known tribal cultural resources. Further, the Forest Service consulted with the Washoe tribe of California and Nevada as part of the NEPA review and federal approval process; no tribal concerns were identified (USDA 2020, pp.11, 65).

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less-than-significant impact. As part of the NEPA process for this project, TNF consulted with the Washoe Tribe of Nevada and California, who did not identify Tribal Cultural Resources that would be adversely affected by the project. In addition, SNC sent a consultation request notification to the eight Native American Tribes identified by the NAHC as being traditionally and culturally affiliated with the project area. To date none of those Tribes have identified Tribal Cultural Resources that could be affected by the project. Therefore, it is unlikely that Tribal Cultural Resources are present within the project area. However, if previously unknown Tribal Cultural Resources are identified during project implementation, those resource would be protected through the provisions of the US Forest Service Programmatic Agreement (see discussion in Section 3.5.2.a, above). Pursuant to the Programmatic Agreement, if previously unknown Tribal Cultural Resources are discovered, the US Forest Service would consult with the State Historic Preservation Office and Native American Tribes that may attach religious or cultural significance to the resource, and jointly develop appropriate measures for treatment of the resource. For these reasons, the project would have a less than significant effect on Tribal Cultural Resources.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems. Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.19.1 Discussion

a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The proposed project includes a single-track trail for motorized and non-motorized recreation, as well as route decommissioning in the Tahoe and Humboldt-Toiyabe National Forests. The project would not include new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. The project would not require water supplies or wastewater treatment. There would be no impact.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. See discussion a), above.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

No Impact. See discussion a), above.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact. The proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair attainment of solid waste reduction goals. No dumpster or solid waste receptacle would be provided near the trail; therefore, the project would not generate solid waste over the long term. Solid waste generated during the short-term construction period would be minimal. The sites are relatively level and unvegetated, and grading would not generate excess soil for off-site disposal. The project would comply with all applicable federal, state, and local management and reduction statutes and regulations related to solid waste.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. See discussion d), above.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire. Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones? If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

The project site is in a forested area where wildfires could occur. The site is on federal land (national forest) in a federal responsibility area and not within in a state responsibility area (CAL FIRE 2022). According to the Wildfire Hazard Potential map developed by the USDA Forest Service, the project site is in an area of high to very high wildfire hazard (USDA 2020b).

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. There are no established emergency evacuation routes in the project area. The project would not create a substantial increase in the number of visitors within the project area that would potentially need to evacuate. Therefore, the project would not impair an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-significant impact. Portions of the project area are located within a very high fire hazard severity zone. The project area contains slopes and mountainous terrain developed with OHV routes and other recreational facilities, including hiking, biking, motorcycles, e-bikes, and equestrian use. The project area currently contains unmanaged user-created trails mixed in with natural vegetation. New project development of 15 miles of single-track trail would not introduce new recreational land use to the project area, potential ignition sources, or change in topography that could exacerbate wildfire risks and thereby expose site visitors to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The proposed project does not include structures for human habitation, and building materials (e.g., pavement, puncheons, and turnpikes) are not highly flammable. The project area is relatively level, with some steep rocky outcrops, and no nearby vegetated slopes that could increase the risk of uncontrolled wildfire spread. The project area is also managed for fuel reduction to reduce wildfire hazards in the area.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-significant impact. The project would not include the installation of roads, fuel breaks, emergency water sources, power lines or other utilities.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-significant impact. The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Although the project area includes slopes and mountainous terrain, no buildings or structures for human habitation are proposed. There are no permanent residents in the project area, and the Tahoe National Forest would close any recreational trails and staging areas at risk due to post-fire slope instability or drainage changes as needed. The project would not change the recreational land use of the project area or exacerbate existing wildfire risks to people or structures.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

3.21.1 Discussion

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

Less-than-significant impact. The resource protection measures applied to this project as management requirements and mitigation measures would ensure impacts on biological resources are less than significant. With implementation of these measures, the project would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

Historical or archeological resources were identified in the project area in the cultural resources reports prepared for the larger East Zone Connectivity Project (which the proposed project is part of) by the Tahoe National Forest (Long 2018; Cook-Fisher 2020; Smith 2021). Sites potentially occurring in the area of effect would be protected and no adverse impact would occur. If any previously unknown cultural resources are discovered during project implementation, operations would cease until analysis is conducted and protection measures are implemented as

needed consistent with the First Amendment to the Programmatic Agreement Among the USDA Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the Process for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests to the Pacific Southwest Region (Regional PA 2018). Therefore, the project would not 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.)

Less-than-significant impact. The project does not have impacts that are individually limited but cumulatively considerable. The project is designed to mitigate issues of erosion and sedimentation impacting the Truckee River watershed, and address resource damage and safety concerns associated with the currently unmanaged user-created trails in the project area. Standard measures and management requirements incorporated in the project would prevent significant impacts during project construction. The proposed project is part of the larger Lost Sierra Route East Zone Connectivity Project being undertaken in the Tahoe and Humboldt-Toiyabe National Forests. The proposed project, combined with future phases of the larger project, would not create significant adverse environmental impacts. There are no other past, current, or probable future projects in the project area that could combine with the project to result in cumulatively considerable impacts.

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

Less-than-significant impact. The project would not have environmental effects that would cause substantial adverse effects on humans, either directly or indirectly. The project meets existing recreational needs, reduces resource damage from unsustainable or unauthorized trail routes, and would restore hydrologic function of impaired meadow area. The project does not include structures for human habitation, hazardous materials, ongoing emissions, loud noises, or other features that could impact human beings. All potential project-related impacts would be less than significant with the standard measures and resource protections incorporated in the project.

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4 REFERENCES

1 Introduction

U.S. Forest Service. 2021. *Decision Notice and Finding of No Insignificant Impact for the East Zone Connectivity and Restoration Project*. Tahoe National Forest and Humboldt-Toiyabe National Forest. Truckee Ranger District and Carson Ranger District, Placer, Nevada, and Sierra Counties, California.

USFS. *See* US Forest Service.

2 Project Description

USDA. *See* U.S. Department of Agriculture.

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

U.S. Forest Service. 2021. *Decision Notice and Finding of No Insignificant Impact for the East Zone Connectivity and Restoration Project*. Tahoe National Forest and Humboldt-Toiyabe National Forest. Truckee Ranger District and Carson Ranger District, Placer, Nevada, and Sierra Counties, California.

USFS. *See* U.S. Forest Service.

3 Environmental Checklist

3.1 Aesthetics

California Department of Transportation (Caltrans) 2023. State Scenic Highway Map. Available: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed March 2, 2023.

Caltrans. *See* California Department of Transportation.

USDA. *See* U.S. Department of Agriculture.

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

3.2 Agriculture and Forest Resources

California Department of Conservation. 2023. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. California Important Farmland Finder. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed March 16, 2023.

DOC. *See* California Department of Conservation.

3.3 Air Quality

California Air Resources Board. 2022. *Proposed 2022 Amendments to Area Designations for State Ambient Air Quality Standards*. Available: https://ww2.arb.ca.gov/rulemaking/2022/2022-state-area-designations-regulation. Accessed: March 2023.

CARB. *See* California Air Resources Board.

3.4 Biological Resources

California Natural Diversity Database. 2023a. Results of electronic records search. Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed March 14, 2023.

———. 2023b. *Mule Deer Migration Corridors- Verdi-Truckee – 2009-2010, 2012-2017 [ds2915]*. Accessed March 16, 2023.

California Native Plant Society. 2023. *A Manual of California Vegetation* Online. Available http://vegetation.cnps.org/. Accessed March 27, 2023.

———. 2023. Inventory of Rare and Endangered Plants of California (online edition, v-9.5). Available: https://rareplants.cnps.org/. Accessed March 16, 2023.

California Wildlife Habitat Relationship System. 1990. *Life history account for American Badger* (*Taxidea taxus*). California Department of Fish and Wildlife, California Interagency Wildlife Task Group. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2597&inline=1. Accessed March 2023.

———. 2005. *Life history account for Yellow warbler* (*Dendroica petechia*). California Department of Fish and Wildlife, California Interagency Wildlife Task Group. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10425&inline. Accessed March 2023.

CNDDB. *See* California Natural Diversity Database.

CNPS. *See* California Native Plant Society.

CWHR. *See* California Wildlife Habitat Relationship System

Meagher, Mary. East Zone Botanist and Range Specialist, Tahoe National Forest. April 7, 2023—phone call with Adam Lewandowski, Senior Project Manager, Ascent Environmental.

Sawyer, J. O., T. Keeler-Wolf, J. M. Evens. 2009. *A Manual of California Vegetation (Second Edition).* California Native Plant Society and California Department of Fish and Game.

USDA. *See* US Department of Agriculture.

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

3.5 Cultural Resources

Cook-Fisher, Jonathan. 2020. Trail Report: Ebike and Mountain Bike (MTB).

Long, Ashley M. 2018. *Lady Bug Off-Highway Vehicle (OHV) Trail Project. Tahoe National Forest Cultural Resource Report R2018051700080*. Sierra and Nevada Counties, California. November.

US Department of Agriculture. 2013. *Programmatic Agreement Among the U.S.D.A. Forest Service, Pacific Southwest Region (Region 5); California State Historic Preservation Officer; Nevada State Historic Preservation Officer; and the Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region*. Executed February 6, 2013. As amended 2018.

USDA. *See* US Department of Agriculture.

3.6 Energy

No references cited.

3.7 Geology and Soils

AGI. *See* American Geosciences Institute.

American Geosciences Institute. 2023. In what types of rocks do fossils form? Available: https://www.americangeosciences.org/education/k5geosource/content/fossils/in-what-types-of-rocks-do-fossils-form. Accessed March 2, 2023.

California Department of Conservation (DOC) 2015a. Fault Activity Map of California. Available: https://maps.conservation.ca.gov/cgs/fam/. Accessed March 1, 2023.

———. 2015b. Geology Map of California. Available: https://maps.conservation.ca.gov/cgs/gmc/. Accessed March 2, 2023.

———. 2022. CGS Information Warehouse: Regulatory Maps. Available: https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Accessed March 1, 2023.

California Geological Survey. 2002. California Geomorphic Provinces. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf. Accessed March 1, 2023.

———. 2016. *Earthquake Shaking Potential for California*. Available: https://www.conservation.ca.gov/cgs/Documents/Publications/Map-Sheets/MS_048.pdf. Accessed March 1, 2023.

CGS. *See* California Geological Survey.

DOC. *See* California Department of Conservation.

Macrostrat. 2023. Macrostrat Geological and Paleontology/Fossil Mapping Data. Available: https://macrostrat.org/map/loc/-120.0682/39.429#z=10.9&show=fossils,geology. Accessed March 2, 2023.

National Resources Conservation Service. 2023. *Web Soil Survey*. Available: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed March 6, 2023.

National Oceanic and Atmospheric Administration. 2023 (January). What is subsidence? Available: https://oceanservice.noaa.gov/facts/subsidence.html. Accessed March 1, 2023.

NOAA. *See* National Oceanic and Atmospheric Administration.

NRCS. *See* National Resources Conservation Service.

USDA. *See* U.S. Department of Agriculture.

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

3.8 Greenhouse Gas Emissions

California Air Resources Board. 2022. *2022 Scoping Plan Document*. Available: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf. Accessed March 2023.

CARB. *See* California Air Resources Board

3.9 Hazards and Hazardous Materials

California Environmental Protection Agency. 2023. Cortese List Data Resources. Available at: https://calepa.ca.gov/SiteCleanup/CorteseList/. Accessed on March 16, 2023.

CalEPA. *See* California Environmental Protection Agency.

California State Water Resources Control Board. 2023. GeoTracker. Available at: https://geotracker.waterboards.ca.gov/. Accessed March 16, 2023.

CSWRCB. *See* California State Water Resources Control Board.

Patterson, Mary. 2020. *Biological Assessment and Biological Evaluation of Botanical Species, East Zone Connectivity and Restoration Project, Truckee Ranger District, Tahoe National Forest*.

USDA. *See* US Department of Agriculture.

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

3.10 Hydrology and Water Quality

Federal Emergency Management Agency. 2010. National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM). Nevada County, California and Unincorporated Areas, Map Number 06057C0300E.

FEMA. *See* Federal Emergency Management Agency.

Hutchinson, R. and S. Falvey. 2020. *East Zone Connectivity and Restoration Project. Watershed Resources Report*. Tahoe National Forest, Truckee Ranger District.

Lahontan Regional Water Quality Control Board. 2019. *Water Quality Control Plan for the Lahontan Region Plan*. Effective March 31, 1995, including amendments effective August 1995 through October 29, 2019. Available at: https://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.html. Accessed March 16, 2023.

LRWQCB. *See* Lahontan Regional Water Quality Control Board.

3.11 Land Use and Planning

US Forest Service. 2021. Habitat Management Program for Off-Highway Motor Vehicle Recreation Division Department of Parks and Recreation, Grants and Cooperative Agreements Program.

USFS. *See* United States Forest Service.

3.12 Mineral Resources

California Department of Conservation. 2023. CGS Information Warehouse: Mineral Land Classification. Available: https://maps.conservation.ca.gov/mineralresources/#webmaps. Accessed March 1, 2023.

DOC. *See* California Department of Conservation.

3.13 Noise

Governor's Office of Planning and Research. 2017. *General Plan Guidelines* - Appendix D - California. Available: https://www.opr.ca.gov/docs/OPR_Appendix_D_final.pdf. Accessed August 2022.

OPR. *See* Governor's Office of Planning and Research.

3.14 Population and Housing

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

USDA. *See* US Department of Agriculture.

3.15 Public Services

No references cited.

3.16 Recreation

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

USDA. *See* US Department of Agriculture.

3.17 Transportation/Traffic

No references cited.

3.18 Tribal Cultural Resources

U.S. Department of Agriculture, Forest Service. 2020a. *East Zone Connectivity and Restoration Project Environmental Assessment*. Truckee Ranger District, Tahoe National Forest, and Carson Ranger District, Humboldt-Toiyabe National Forest. Placer, Nevada, and Sierra Counties, California. December.

USDA. *See* US Department of Agriculture.

3.19 Utilities and Service Systems

No references cited.

3.20 Wildfire

CAL FIRE. 2022 (November). Nevada County: State Responsibility Area Fire Hazard Severity Zones. Available: https://osfm.fire.ca.gov/media/5qsb1qiv/fhsz_county_sra_11x17_2022_nevada_ada.pdf. Accessed March 1, 2023.

CAL FIRE. *See* California Department of Forestry and Fire Protection.

U.S. Department of Agriculture, Forest Service. 2020b. *Wildfire Hazard Potential (WHP) for the United States*. Wildfire Risk to Communities project. Available: https://wildfirerisk.org. Accessed March 1, 2023.

USDA. *See* US Department of Agriculture.

3.21 Mandatory Findings of Significance

Cook-Fisher, Jonathan. 2020. *Trail Report: Ebike and Mountain Bike (MTB).*

Long, Ashley M. 2018. *Lady Bug Off-Highway Vehicle (OHV) Trail Project. Tahoe National Forest Cultural Resource Report R2018051700080*. Sierra and Nevada Counties, California.

Smith, Carrie. 2021. *Development East Zone OHV Trailheads, Phase 1. Three Trailheads/Staging Areas (Weasel, Bullseye, Boca Dam). OHV Grant Application Tahoe National Forest Cultural Resource Report R2018051700080 Fiscal Year 2022 Addendum 1.*

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