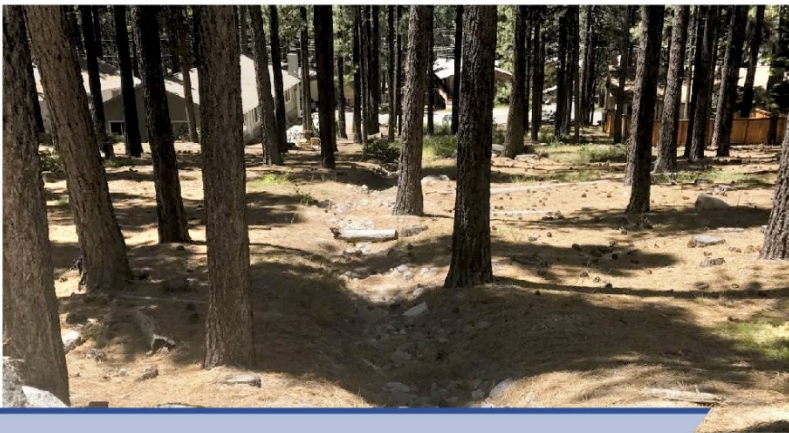
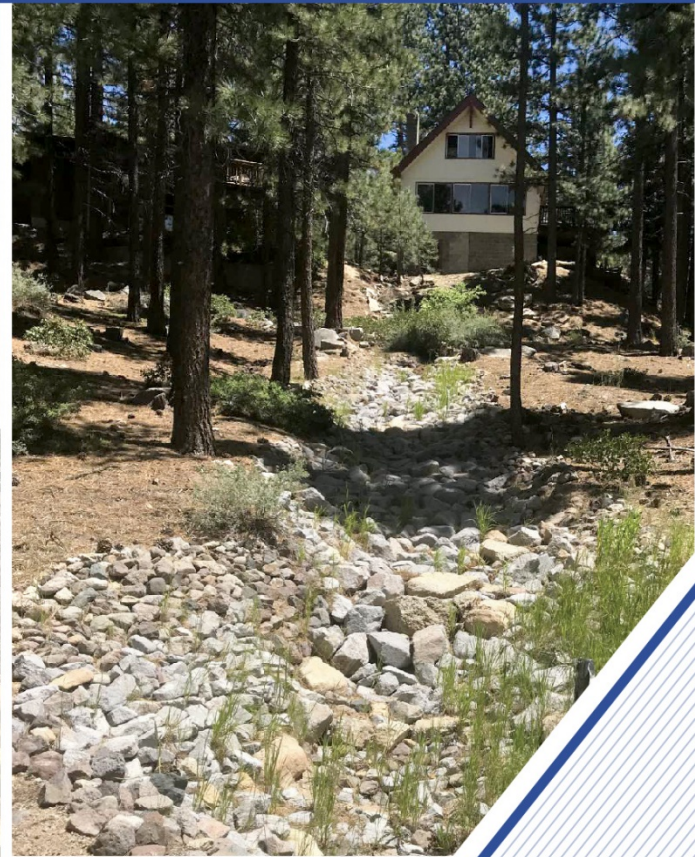


May 2020



Initial Study / Negative Declaration

Ruby Way - Overlook Court Drainage and Erosion Control Project

PREPARED FOR:



**CITY OF
SOUTH LAKE TAHOE**

City of South Lake Tahoe
17400 D Street
South Lake Tahoe, CA 96150

Initial Study/Negative Declaration
for the
Ruby Way - Overlook Court Drainage and Erosion
Control Project

Prepared for:
City of South Lake Tahoe
17400 D Street
South Lake Tahoe, California 96150

Prepared By:
Ascent Environmental, Inc.
PO Box 5022
Stateline, Nevada 89449

May 2020

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LIST OF ABBREVIATIONS

AB	Assembly Bill
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
CGS	California Geologic Survey
CHRIS	California Historical Resources Information System
City/CSLT	City of South Lake Tahoe
CMP	corrugated metal pipe
CNDDB	California Natural Diversity Database
Conservancy	California Tahoe Conservancy
CO ₂	carbon dioxide
DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
DWR	Department of Water Resources
EDCAQMD	El Dorado County Air Quality Management District
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FAA	Federal Aviation Administration
FTA	Federal Transit Administration
GHG	greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
IRWM	Integrated Regional Water Management
IS/ND	initial study and proposed negative declaration
lb/day	pounds per day
LOS	level of service
Lahontan RWQCB	Lahontan Regional Water Quality Control Board

LTAB	Lake Tahoe Air Basin
LTUSD	Lake Tahoe Unified School District
MRF	Materials Recovery Facility
MTCO ₂ e/year	metric tons of CO ₂ equivalent per year
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NDEP	Nevada Division of Environmental Protection
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NRCS	U.S. Natural Resources Conservation Service.
OPR	Governor's Office of Planning and Research
PAS	plan area statement
PM ₁₀	particulate matter with an aerodynamic diameter of 10 microns or less
PRC	Public Resources Code
project	Ruby Way – Overlook Court Drainage and Erosion Control Project
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SMAQMD	Sacramento Metropolitan Air Quality Management District
STR	South Tahoe Refuse
SVP	Society of Vertebrate Paleontology
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
Tahoe RCD	Tahoe Resource Conservation District
TCR	tribal cultural resource
TRPA	Tahoe Regional Planning Agency
TTC	temporary traffic control plan
USGS	U.S. Geologic Survey
VMT	vehicle miles traveled

1 INTRODUCTION

The City of South Lake Tahoe (City) is proposing the Ruby Way – Overlook Court Drainage and Erosion Control Project (project) to decrease the amount of fine sediment and other pollutants entering Lake Tahoe from a residential area between Pioneer Trail and Heavenly Valley. Addressing and treating this highly erosive area is a component of the City's 2018 Pollutant Load Reduction Plan (CSLT 2018) and one of many projects the City is undertaking to meet the requirements of the Lake Tahoe Total Maximum Daily Load (TMDL) (IRWM 2013 and Tahoe RCD 2018). The Lake Tahoe TMDL—adopted by the states of California and Nevada and approved by the U.S. Environmental Protection Agency on August 17, 2011—is a plan to reverse the decline in Lake Tahoe's clarity and restore deep-water clarity to historic levels. As a multiple-benefit stormwater project focused on removing fine sediment and nutrients from urban runoff, the project would be registered into the Lake Clarity Crediting Program to document compliance with the Lake Tahoe TMDL. The proposed project would result in the infiltration of stormwater runoff and restoration of upland slopes that are currently susceptible to erosive effects of urban runoff, as noted in the Stormwater Resource Plan for the Tahoe-Sierra Region (Tahoe RCD 2018).

1.1 PURPOSE OF THIS DOCUMENT

Under the California Environmental Quality Act (CEQA) (Public Resources Code Section 21067), the lead agency is the public agency with primary responsibility for carrying out or approving a project that has the potential for resulting, directly or indirectly, in a physical change to the environment. As the agency responsible for leading implementation of the Ruby Way – Overlook Court Drainage and Erosion Control Project, the City is the CEQA lead agency. Under CEQA, the environmental impacts of the project are evaluated based on the whole of the project. The City directed the preparation of this analysis to comply with CEQA. The purpose of this initial study and proposed negative declaration (IS/ND) is to present to decisionmakers and the public the environmental consequences of implementing the proposed project.

1.2 PUBLIC REVIEW PROCESS

As required by CEQA, this IS/ND is being made available to the public for a 30-day review and comment period from May 19, 2020 to June 18, 2020. If you wish to send written comments (including via e-mail), they must be postmarked by **June 18, 2020**. Written comments should be addressed to:

Chuck Taylor, PE
Associate Civil Engineer
City of South Lake Tahoe, Public Works Department
1740 D Street
South Lake Tahoe, CA 96150

E-mail comments should be addressed to ctaylor@cityofslt.us.

After comments are received from the public and reviewing agencies and considered by the City, the agency may (1) adopt the ND and approve the proposed project, (2) undertake additional environmental studies, or (3) abandon the project.

Digital copies of the IS/ND are available on the internet at: <http://www.cityofslt.us/608/City-Projects>. Because buildings are closed due to COVID-19, paper copies of the document may be requested by contacting Chuck Taylor at ctaylor@cityofslt.us or (530) 542-6042. In these instances, the paper copy of the document would be left outside the City of South Lake Tahoe office at 1740 D Street for pick up.

1.3 SUMMARY OF FINDINGS

Chapter 3, "Environmental Checklist," contains the analysis and discussion of potential environmental impacts of the project. The full range of environmental issues in the Appendix G checklist of the State CEQA Guidelines have been analyzed. Based on the issues evaluated in that chapter, it was determined that the project would have no impact related to the following issue areas:

- ▶ energy,
- ▶ mineral resources and natural resources,
- ▶ population and housing, and
- ▶ public services.

Project impacts were determined to be less than significant for the following issue areas:

- | | | |
|-------------------------------------|------------------------------------|--------------------------------------|
| ▶ agriculture and forest resources, | ▶ greenhouse gas emissions, | ▶ recreation, |
| ▶ aesthetics, | ▶ hazards and hazardous materials, | ▶ transportation, |
| ▶ air quality, | ▶ hydrology and water quality, | ▶ tribal cultural resources, |
| ▶ biological resources, | ▶ land use and planning, | ▶ utilities and service systems, and |
| ▶ cultural resources, | ▶ noise, | ▶ wildfire. |
| ▶ geology and soils, | | |

1.4 DOCUMENT ORGANIZATION

This IS/ND is organized as follows:

Chapter 1: Introduction. This chapter introduces the environmental review process. It describes the purpose and organization of this document and presents a summary of the IS/ND findings.

Chapter 2: Project Description. This chapter describes the project objectives and provides a detailed explanation of the proposed project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist (Appendix G of the State CEQA Guidelines). The CEQA Environmental Checklist considers, for each environmental topic, whether the project would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts are determined to be significant, an environmental impact report (EIR) would be required. For this project, however, all project impacts were determined to be less than significant.

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

Chapter 5: Report Preparers. This chapter lists the authors of each chapter and section.

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The Ruby Way – Overlook Court Drainage and Erosion Control Project is proposed by the City of South Lake Tahoe to address an undersized storm drain system within the East Pioneer Trail Watershed, Bijou Park Creek Drainage (Figure 2-1). The project site is located in an area that consists of primarily single-family residential homes, limited multi-family development, publicly owned parcels, and roadways. The area includes relatively steep terrain. Existing drainage features within the area were installed during construction of the residential subdivision, mostly in the 1960s, and retrofitted under the 1987 “Bijou/Wildwood Erosion Control Project.” Seasonal flooding and overland flows occur in the area when the curb and drain inlet collection system fails to capture and convey runoff. The result is erosion along road shoulders, across public lands, and flooding of some apartments and residences. The downhill community is Census Tract is designated as a severely disadvantaged community (DWR 2016) and the project would provide multiple-benefits as defined in the Stormwater Resource Plan for the Tahoe-Sierra (Tahoe RCD 2018). The proposed project is part of the Lake Tahoe Environmental Improvement Program (EIP Project #01.01.01.0095) and is intended to reduce stormwater pollution from City roads as noted in the City’s 2018 Pollutant Load Reduction Plan (CSLT 2018) and in the Stormwater Resource Plan for the Tahoe-Sierra Region (Tahoe RCD 2018). The project design objectives are to keep sediment off of the road surfaces, eliminate flooding, and prevent fine sediment from reaching Lake Tahoe by:

- ▶ replacing and upgrading drainage infrastructure,
- ▶ stabilizing steep erodible road shoulders and drainage channels that are vulnerable to erosion,
- ▶ trapping sediment in maintainable drainage structures,
- ▶ routing more stormwater down the old Wildwood Avenue right-of-way to reduce stormwater flowing to Ruby Way, and
- ▶ providing more opportunities to detain runoff and allow infiltration.

2.2 PROJECT FEATURES

The Ruby Way – Overlook Court Drainage and Erosion Control Project consists of stormwater improvements that make use of existing right-of-way and public lands (California Tahoe Conservancy and City of South Lake Tahoe) for stormwater and erosion control treatments with consideration for cost and maintainability. The Bijou Park Creek Drainage area consists of a relatively small contributing catchment area of 25 acres, but the project site where improvements would occur is limited to a total of 0.93 acre not including staging areas (40,655 square feet). Additionally, the proposed project would affect the immediate down-gradient storm drain system by attenuating flows from the upstream area resulting in a total affected catchment area of 45 acres. Models of the storage capacity upstream indicate that the peak volume of stormwater runoff would be decreased by the increased stormwater storage capacity of the proposed project. All disturbed areas would be stabilized at project completion. Existing site conditions include an undersized storm drain collection and conveyance system that is frequently overwhelmed during high-intensity storm events that lead to flooding and erosion. Maintenance of the existing drainage system is difficult given the lack of access to open channels and the amount of sediment, pine needles, and debris that inundate the inlets during storm events as well as poor access to the open channels.

The existing stormwater drainage system discharges from two points in the project area. Stormwater discharge from the northwest side of the project area is conveyed from the low points on Ruby Way via a 24-inch drain pipe. Drainage from this discharge point crosses under Pioneer Trail and reconvenes at Sonora and Tamarack Avenues outside of the project area. A 24-inch drain pipe carries the flows west to Ski Run Boulevard. From Ski Run Boulevard, the flow is conveyed via a 36-inch drain pipe to the Osgood Avenue wetland basins, which then discharge into Ski



Source: Adapted by Ascent Environmental in 2020

Figure 2-1 Project Site Location

Run Marina in Lake Tahoe via double box culverts. On the northeast side of the project area, flows entering the City's storm drain system at Stewart Way and Wildwood Avenue are discharged to the existing curb and gutter on Wildwood Avenue on the north side of Pioneer Trail. Flows are conveyed along Wildwood Avenue where they enter the City's storm drain system again at Larch Avenue. The existing storm drain system at this location is frequently overwhelmed which leads to localized flooding along Alder, Forest, Paradise, and Osgood Avenues. Proposed project improvements would redirect urban stormwater runoff into surface and subsurface conveyance systems removing overland surface flow that is currently causing significant erosion in the project area. The proposed improvements are shown in Figures 2-2a and 2-2b. Project work would include additional storm drain inlets, subsurface storm drain pipes, improved channels, and storm drain detention basins that would allow infiltration of stormwater. Additionally, slope stabilization is proposed on the upper portion of Wildwood Avenue, on the corner of Overlook Trail and Wildwood Avenue, on David Lane, and other areas as needed. The planned South Tahoe Greenway Shared-Use Trail, led by the California Tahoe Conservancy (Conservancy), bisects the project area and will provide connection between the existing eastern terminus of the trail (Aloha Road/Herbert Avenue) to Van Sickle Bi-State Park when constructed. The public parcels on which the trail is proposed are also identified as potential locations for water quality treatment and infiltration, such as the proposed basins. The Conservancy is familiar with the proposed project and has worked with the City in its role as a Technical Advisory Committee (TAC) member and affected landowner to design the proposed improvements to be compatible with the future trail.

A new storm drain pipe is proposed to connect the existing drop inlets at the intersection of Lucinda Court and Wildwood Avenue with a new storm drain pipe that would replace the existing rock-lined channel on Wildwood Avenue. Due to the steepness of the drain pipe alignment, corrugated high-density polyethylene pipe (HDPE) pipe is proposed to reduce stormwater velocity. A new drop inlet is proposed in the inside curve of Overlook Court that would also be connected via a new storm drain pipe to the new storm drain along Wildwood Avenue.

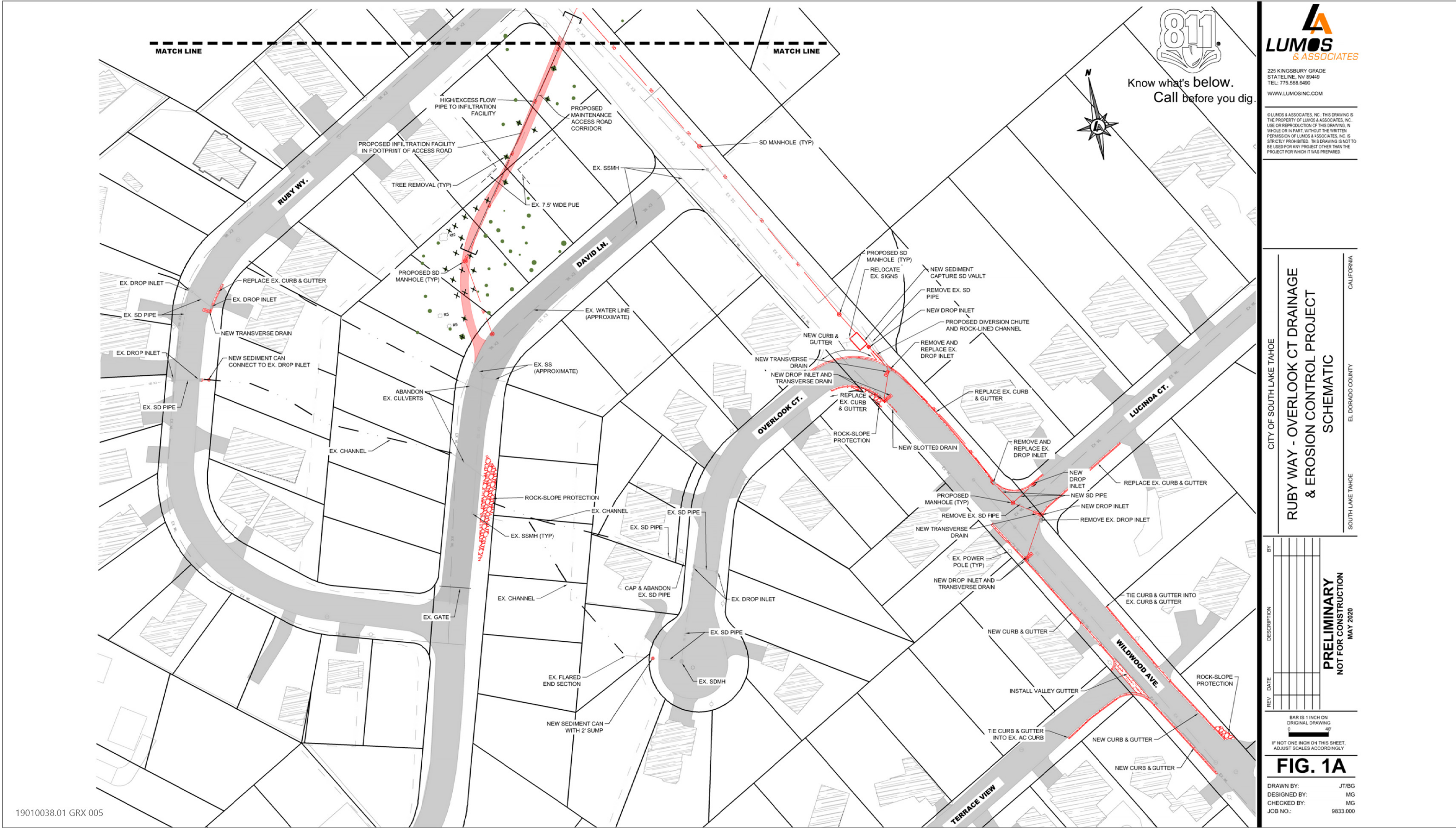
Two sets of infiltration facilities are proposed within the project site to intercept and infiltrate stormwater flows. The first would include an infiltration facility located in the forested area between David Lane and Wildwood Avenue. The two existing culverts beneath David Lane would be abandoned. The infiltration facility would include a perforated pipe in an infiltration gallery (approximately 2-feet deep and 7-feet wide) and would be located primarily on Conservancy parcels or within the existing right-of-way. The perforated pipe would be sized to allow for infiltration of low flows with higher flows being conveyed to a second infiltration facility that would consist of a series of water quality basins constructed in the abandoned section of Ruby Way (Figures 2-2a and 2-2b). A maintenance access road is proposed along the perforated pipe section to facilitate ease of maintenance of the manholes and removal of accumulated sediment. The proposed road would be surfaced with aggregate base and gated to restrict access. Any disturbed roadside areas with slopes greater than 4:1 would be stabilized with rock, and less steep areas would be revegetated. Planned maintenance of the perforated pipe infiltration system along the proposed perforated pipe route is via the access manhole off lower Wildwood end of the gated access road. Maintenance of the access road would be expected to occur once every 5 years and City personnel would access the road a minimum of two times annually to inspect the system.

The second infiltration facility would consist of three basins near the abandoned section of Ruby Way near the intersection with Wildwood Avenue. The three basins would be connected with rock overflow weirs to regulate the flow of water from one basin to the next. In addition to capturing possible excess flows from the first infiltration facility, the basin series would also handle flows from the upper portion of Wildwood Avenue. Flows from the upper portion of Wildwood Avenue would be captured in a new inlet structure and conveyed to the basin series via a new 18-inch storm drain pipe, which would replace an existing rock-lined channel. A new storm drain manhole with a high-flow bypass weir is proposed where the new Wildwood Avenue storm drain pipe intercepts the perforated pipe infiltration system. The bypass weir would allow flows up to the 25-year peak flows from both the upper watershed area as well as the Overlook Court area to be conveyed to the infiltration basins at the abandoned section of Ruby Way. Excess flows would be conveyed to a new storm system along Wildwood Avenue. This storm drain system would connect to the City's existing storm drain system at Stewart Way and a new connection to the storm drain system would be constructed to tie into the City's existing storm drain system at Pioneer Trail. The proposed project would balance excavated material from basin construction onsite to the extent feasible to minimize the need to off haul soil. Material excavated from the basins would be placed in an existing ditch in an unimproved section of

Wildwood Avenue in select areas of the City right-of way off the end of David Lane to lessen slopes, and in the slopes and berms proposed as part of the basins.

The proposed project would require the removal of approximately 23 Jeffrey pines ranging in size from 8 to 36 inches diameter at breast height. Materials from removed trees would be used on site to the extent practical or hauled away.

The infiltration facilities are designed to infiltrate 100 percent of the water quality volume of the 20-year, 1-hour storm event from the project area. The stormwater basins would be vegetated with native vegetation and would be rock lined in areas with side slopes steeper than 3:1. The storm drain piping would be visible at the outlets and inlets of the basins. Within the basins, the proposed outlets would consist of a riser pipe with a grate. A representative stormwater basin is shown in Figure 2-3.



Source: Image produced and provided by Lumos & Associates in 2020

Figure 2-2a Ruby Way – Overlook Court Drainage and Erosion Control Project - Proposed Improvements (Sheet 1)



Source: Image produced and provided by Lumos & Associates in 2020

Figure 2-2b Ruby Way – Overlook Court Drainage and Erosion Control Project - Proposed Improvements (Sheet 2)



Source: Ascent Environmental 2019

Figure 2-3 Representative Stormwater Basin

2.3 CONSTRUCTION SCHEDULE

Construction is anticipated to last one grading season and occur between May 1 and October 15. All construction would take place between the hours of 8:00 a.m. and 6:30 p.m. as stated in Chapter 68.9 of the TRPA Code of Ordinances. Project-related construction activities include public roadway right-of-way; and thus, would likely require temporary lane closures. To minimize the impact on the transportation network, prior to construction, the construction contractor would prepare and implement a temporary traffic control plan (TTC). The TTC would be subject to review by the City and would comply with Part 6, Temporary Traffic Control, of the California Manual on Uniform Traffic Control Devices (MUTCD), and standard construction practices. At a minimum, the TTC would include:

- ▶ a description of the proposed work zone, the roadways and intersections affected by the work, and any proposed lane and bicycle lane closures;
- ▶ appropriate tapers and lengths, signs, and spacing;
- ▶ appropriate channelization devices and spacing;
- ▶ proposed speed limit changes, if applicable;
- ▶ a determination of the need for flaggers for directing traffic, temporary signage, lighting, and traffic control devices;

- ▶ a description of how to maintain access to all surrounding parcels and properties adjacent to where construction would occur. Access to driveways along the upper paved portion of Wildwood Avenue would be impacted for the construction of new curb and gutter and the installation of storm drain pipe. The construction contractor would be required to notify occupants of the affected parcels 1 week in advance of construction in that area; and
- ▶ adequate emergency vehicle access to all surrounding parcels and properties at all times.

2.4 AFFECTED PARCELS

Table 2-1 lists the parcels where improvements are proposed.

Table 2-1 Parcels Where Improvements are Proposed

Assessor's Parcel Number	Property Owner	Improvement Proposed
David Lane right-of-way	City of South Lake Tahoe	Maintenance and access road, rock-slope protection, infiltration facility, and storm drain pipe
028-122-008	California Tahoe Conservancy	Storm drain infrastructure, infiltration facility, channel improvements
028-122-013	California Tahoe Conservancy	Storm drain infrastructure, infiltration facility, channel improvements
028-122-014	California Tahoe Conservancy	Storm drain infrastructure, infiltration facility, channel improvements
028-122-016	California Tahoe Conservancy	Storm drain infrastructure, storm drain pipe, and maintenance and access road
028-122-017	California Tahoe Conservancy	Storm drain pipe, and maintenance and access road
028-122-018	California Tahoe Conservancy	Storm drain pipe, and maintenance and access road
028-122-019	U.S. Forest Service (improvements would be within existing public utility easement)	Storm drain infrastructure, storm drain pipe, and maintenance and access road
028-122-003	Private (improvements would be within existing public utility easement)	Maintenance and access road, storm drain pipe
028-122-002	California Tahoe Conservancy	Storm drain pipe, storm drain infrastructure, and maintenance and access road
028-122-001	California Tahoe Conservancy	Storm drain pipe, and maintenance and access road
028-180-006	California Tahoe Conservancy	Storm drain pipe with inlet structure, storm drain pipe with outlet structure, and infiltration facility
028-180-005	California Tahoe Conservancy	Infiltration facility and rock overflow weir
028-090-040	California Tahoe Conservancy	Infiltration facility and rock overflow weir
028-180-047	California Tahoe Conservancy	Storm drain pipe, infiltration facility, and rock overflow weir
028-123-012	California Tahoe Conservancy	Storm drain infrastructure
Wildwood Avenue right-of-way	City of South Lake Tahoe	Storm drain pipe and infrastructure, rock slope protection, curb and gutter, valley gutter
Ruby Way right-of-way	City of South Lake Tahoe	Storm drain pipe and infrastructure
Overlook Court right-of-way	City of South Lake Tahoe	Storm drain pipe and infrastructure
Pioneer Trail right-of-way	City of South Lake Tahoe	Storm drain pipe and infrastructure

Source: Adapted by Ascent Environmental with information from the El Dorado County Assessor (2020)

2.5 CONSTRUCTION BEST MANAGEMENT PRACTICES

The proposed project must meet TRPA and State Water Resources Control Board (Order No. R6T-2016-0010) requirements to for best management practices (BMPs) to minimize sediment transport and erosion during construction. The proposed project is also subject to the El Dorado County Air Quality Management District Fugitive Dust requirements (Rule 223). The project contractor would be required to submit a Fugitive Dust Control Plan to the (EDCAQMD) at least 10 days prior to the initiation of grading activities. BMP and dust control examples that are part of the proposed project include:

- ▶ Temporary erosion control BMPs (e.g., silt fencing, fiber rolls, drain inlet protection).
- ▶ Tree protection fencing installed around the dripline of trees.
- ▶ Mandatory pre-grading inspections by regulatory agencies at the construction site to ensure proper installation of the temporary construction BMPs prior to the initiation of construction activities.
- ▶ Requirements to limit the area and extent of all excavation to avoid unnecessary soil disturbance. This would consist of project limit fencing around all work areas including the lower basin series that would contain all construction equipment.
- ▶ Requirements to winterize the construction site by October 15 to reduce the water quality impacts associated with winter weather. Winterization typically includes installation of erosion controls, vegetation protection, removal of construction debris, site stabilization, and other measures.
- ▶ Dust control measures to prevent transport of materials from the construction site into any surface water or drainage course. Dust control measures typically include sweeping, watering, covering of disturbed soils and stockpiles, vehicle washing, and other measures.
- ▶ Requirements to remove surplus or waste earthen materials from the construction site, as well as requirements to stabilize and protect stockpiled material.
- ▶ Stabilization of drainage swales disturbed by construction activities with appropriate soil stabilization measures (e.g., revegetation, rock armoring) to prevent erosion.
- ▶ Spill prevention plans and measures.
- ▶ Temporary BMPs to prevent the tracking of earthen materials and other waste materials from the construction site to offsite locations, including stabilized points of entry/exit for construction vehicles/equipment, designated vehicle/equipment rinse stations, and sweeping operations.
- ▶ Regular inspection and maintenance of temporary BMPs.
- ▶ Construction site entrance controls to minimize material carryout management to prevent sediment track out.
- ▶ County Coroner notification in the unlikely event that human remains are discovered.
- ▶ Limiting construction vehicle idling time to 5 minutes.
- ▶ Use of clean-fuel generators rather than temporary diesel-powered generators.
- ▶ Limiting construction to between the hours of 8:00 a.m. and 6:30 p.m.
- ▶ BMPs and other measures to prevent releases of hazardous materials and contain and clean-up any accidental releases that might occur.

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3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

- | | |
|--|--|
| 1. Project Title: | Ruby Way – Overlook Court Drainage and Erosion Control Project |
| 2. Lead Agency Name and Address: | City of South Lake Tahoe |
| 3. Contact Person and Phone Number: | Chuck Taylor, Associate Civil Engineer, 530-542-6402 |
| 4. Project Location: | City of South Lake Tahoe, CA |
| 5. Project Sponsor's Name and Address: | Same as Lead Agency |
| 6. General Plan Designation: | Residential |
| 7. Zoning: | Residential |
| 8. Description of Project: | See Chapter 2, "Project Description" |
-
- | | |
|---|--|
| 9. Surrounding Land Uses and Setting: | <i>The project area is surrounded by residential uses. The area south and east is designated for recreation and conservation uses.</i> |
| 10. Other public agencies whose approval is required: | <i>Tahoe Regional Planning Agency, California Tahoe Conservancy, and the, El Dorado County Air Quality Management District.</i> |
| 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? | |
- AB 52 letters were mailed on March 26, 2020 to the Lone Band of Miwok Indians, United Auburn Indian Community, and the Washoe Tribe. An onsite meeting with Darrell Cruz of the Washoe Tribe of Nevada and California occurred on January 8, 2020 and recommendations from Darrell Cruz were implemented into the project description. See Section 3.18, "Tribal Cultural Resources," for more information.*

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 checked below, 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 (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☒ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☐ I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- ☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



5-15-2020

Signature

Date

Chuck Taylor

Associate Civil Engineer

Printed Name

Title

City of South Lake Tahoe

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

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 project site is located in a South Lake Tahoe neighborhood where man-made development including single family homes, multi-family homes, and roads are the dominant visual features. There are no street lights in the neighborhood. Vegetation primarily consists of shrubs and grasses in the understory and Jeffrey pine and white fir in the overstory. The area is relatively steep and drainage controls within the project site were installed during construction of the original subdivision, mostly in the 1960s, and retrofitted under the 1987 "Bijou/Wildwood Erosion Control Project." Seasonal flooding and overland flows occur in the project site when the curb and drain inlet collection system fails to capture and convey runoff. The result is erosion along road shoulders, across public lands, and flooding of some apartments and residences.

TRPA designated Scenic Roadway Unit 45 (Pioneer Trail, North) is located in the northern portion of the project site. Due to topography, distance, and intervening buildings, fences, and forest, most of the project site is not visible from this scenic travel route, except for the small portion of the project that would occur on Pioneer Trail. The nearest TRPA-designated scenic vista/viewpoint is from Viewpoint 3 within Unit 45, which is located at the corner of Ski Run Boulevard and Pioneer Trail, facing north toward the lake. The project site is not visible from this viewpoint.

The TRPA *Design Review Guidelines* (1989) describes the minimum standards necessary to protect and improve the visual resources and character of Lake Tahoe. Compliance with the Design Review Guidelines is considered by TRPA during the approval and permit processes for all projects in the Lake Tahoe Basin.

3.1.2 Discussion

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

Less than significant impact. The proposed project includes the installation of infiltration systems in the form of vegetated and rock-lined stormwater basins and other infiltration facilities at locations below David Lane and in the abandoned portion of Ruby Way near its intersection with Wildwood Avenue. Associated storm drain pipes would be located underground, and thus would not have an effect on scenic character, scenic quality, or a scenic vista. The proposed stormwater basins, with a total footprint of approximately 0.37 acre, would be vegetated with native grasses and plants. Where the basins would have a slope greater than 3:1, they would be lined with rocks to minimize erosion. By using native grasses and vegetation, the infiltration system would blend in with the surrounding environment, and would thus not impact scenic quality, character, or a scenic vista. Additionally, the infiltration systems would reduce the runoff that occurs during seasonal flooding and overland flow events and thus reduce erosion, improving the scenic character of the area. Because the project would incorporate natural features into the site design, use native and adapted plant species, and adhere to the sediment basis design guidelines, the proposed project would adhere to the TRPA Design Review Guidelines (TRPA 1989). Therefore, the proposed project would have a less-than-significant impact on scenic vistas.

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

No impact. The project is not located within and is not visible from a state scenic highway and would therefore not substantially damage scenic resources (including 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?**

Less than significant impact. See discussion regarding character and quality of public views of the site under item "a," above. The proposed project is compatible with the residential zoning of the project area and would not conflict with regulations regarding scenic quality (Plan Area Statements [PAS] 085, Lakeview Heights, and 092, Pioneer/Ski Run; TRPA 1987a, 1987b). Therefore, the proposed project would not conflict with applicable zoning regulations or other regulations. The impact would be less than significant.

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 does not propose any lighting. The materials and the resulting drainage system would not consist of reflective surfaces and materials. Therefore, the construction of the drainage system would not create permanent new light or glare that would adversely affect day or nighttime views in the area. There would be no impact.

3.1.3 Cumulative Impacts

The geographic area for cumulative impacts on aesthetics encompasses the immediate vicinity of the project site. Most of the cumulative projects identified in Table 3.21-1 are distant enough from the project site that they would not combine with the project to affect aesthetics in the project vicinity. The project would have no significant cumulative impact on the aesthetic characteristic of the area.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL CHECKLIST QUESTIONS	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 has been previously disturbed by road construction and residential development and consists of primarily single-family residential homes, limited multi-family development, publicly owned parcels, and roadways within the City of South Lake Tahoe. As discussed further in Section 3.4, "Biological Resources," the existing vegetation in the project site is dominated by shrubs and grasses in the understory and by Jeffrey pine and white fir in the overstory. The project site could be determined to contain forest land (as defined in Public Resources Code Section 12220(g)) because it includes lands that could support 10 percent native tree cover and allow for management of forest resources for aesthetic purposes. However, the land use classification for the project site is residential (Plan Area Statements [PAS] 085, Lakeview Heights, and 092, Pioneer/Ski Run; TRPA 1987a, 1987b), so the forest land provisions do not apply. The project site does not contain timberland (as defined by Public Resources Code Section 4526) and is not zoned for or managed as a Timber Production Zone.

The site does not contain any agricultural land as it is located outside of the area surveyed for the Farmland Mapping and Monitoring Program (DOC 2018). Additionally, the project site does not include lands under Williamson Act contracts (El Dorado County 2018).

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. The project site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, lands subject to Williamson Act contracts, or zoned for agricultural use. There would be no impact.

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

No impact. See discussion under item "a," above.

- 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))?**

No impact. The project site is not zoned for forestland, timberland, or for Timberland Production. Thus, the proposed project would not conflict with or cause rezoning of land zoned for forestland, timberland, or for Timberland Production. There would be no impact.

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

Less than significant impact. Although the project site is not zoned for or designated as forest land, implementation of the proposed project would result in the removal of up to 23 Jeffrey pine trees to construct the stormwater improvements. As discussed further under item "e" under Section 3.4.2, below, the project would require a permit from TRPA for removal of the trees. The removal of 23 trees within the approximately 1-acre project footprint and the implementation of the storm drain infrastructure proposed as part of the project would not result in changes that would result in the loss of forest land or conversion of forest land to non-forest use. Therefore, this impact would be less than significant.

- 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 under items "a" through "d," above.

3.2.3 Cumulative Impacts

The project would result in no impacts on farmland. Therefore, the project would not combine with other cumulative projects identified in Table 3.21-1 to result in a cumulative loss of farmland. Because the proposed project would remove a limited number of trees and because tree removal for the proposed project and other cumulative projects would be subject to the limitations on tree removal set forth in Section 61.1 of the TRPA Code, the proposed project would not make a considerable contribution to a significant cumulative impact on forest resources in the region.

3.3 AIR QUALITY

ENVIRONMENTAL CHECKLIST QUESTIONS	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?	☒ Yes		☐ No	
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 proposed project is located in the City of South Lake Tahoe in El Dorado County, California within the Lake Tahoe Air Basin (LTAB). The ambient concentrations of air pollutant emissions are determined by the amount of criteria pollutants and precursors emitted by the sources of air pollution and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the LTAB are determined by topography, meteorology, and climate.

Both the California Air Resources Board (CARB) and the U.S Environmental Protection Agency (EPA) use ambient air quality monitoring data to designate the attainment status of an area relative to the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) for each criteria air pollutant. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are "nonattainment," "attainment," and "unclassified."

"Unclassified" is used in an area that cannot be classified as meeting or not meeting the standards on the basis of available information. In addition, the California designations include a subcategory of the nonattainment designation, called "nonattainment-transitional." Attainment designations in the LTAB are shown in Table 3.3-1 for each criteria air pollutant.

El Dorado County is designated as being in nonattainment for ozone and particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) with respect to the CAAQS (CARB 2015; CARB 2017). El Dorado County has also been designated as nonattainment for ozone with respect to the NAAQS. The TRPA 2015 *Threshold Evaluation Report* states that regional, state, and federal emission standards for motor vehicles, motorized watercraft, gas appliances, and wood stoves; transportation infrastructure improvements; and restrictions on prescribed burning are being implemented to reduce ozone (TRPA 2015). The proposed project would be required to adhere to all federal, state, and local regulatory measures.

Table 3.3-1 Attainment Status Designations for the Lake Tahoe Air Basin

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	–	Attainment (1-hour)
	Unclassified/Attainment (8-hour) ³	Attainment (8-hour)
	Nonattainment (8-hour) ⁴	
Respirable particulate matter (PM ₁₀)	Unclassified (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter (PM _{2.5})	Unclassified/Attainment (24-hour)	–
	Unclassified/Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO ₂)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO ₂) ⁵	Unclassified/Attainment (1-Hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30-day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

¹ Air Quality meets federal 1-hour ozone standard (77 CFR 64036). EPA revoked this standard, but some associated requirements still apply.

² Per California Health and Safety Code Section 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

³ 1997 – Standard

⁴ 2008 – Standard

⁵ 2010 – Standard

Source: CARB 2018

The El Dorado County Air Quality Management District (EDCAQMD) has regulatory authority over the project site and provides guidance to lead agencies when conducting CEQA analyses. EDCAQMD has mass emissions thresholds for reactive organic gases (ROG) and oxides of nitrogen (NO_x) of 82 pounds per day (EDCAPCD 2002). Although EDCAQMD does not have an adopted quantitative threshold for PM₁₀, Chapter 4 of the EDCAQMD *Guide to Air Quality Assessment* (EDCAPCD 2002) provides guidance on determining significance of PM₁₀ from exhaust emissions. This guidance indicates that if ROG and NO_x emissions are not significant then it can be assumed that other components of exhaust emissions, in this case PM₁₀, are also not significant. With respect to fugitive dust PM₁₀ emissions, EDCAQMD determines significance based on the consistency of the project with dust control measures in EDCAQMD Rule 223. The project would comply with EDCAQMD Rule 223-1—Fugitive Dust, TRPA construction BMPs, and the Lahontan Regional Water Quality Control Board's (RWQCB's) Tahoe Construction General Permit (Order No. R6T-2016-0010) for projects that are over 1 acre. This permit requires implementation of a stormwater pollution prevention plan (SWPPP) and associated dust control BMPs. Additionally, Chapter 65 of the TRPA Code includes standards that apply to mobile and direct sources of air pollution in the Tahoe region, including certain motor vehicles registered in the region (vehicle inspection and maintenance program), stationary sources of air pollution, and idling combustion engines.

3.3.2 Discussion

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

Less than significant impact. Temporary construction-related activities for the proposed drainage and erosion control project would include excavation, grading, placement of storm drain improvements, and revegetation. The proposed project would generate emissions of criteria pollutant and precursors from the combustion of gasoline and diesel fuels to operate construction equipment and automobiles traveling to and from the project site. Diesel-powered equipment would also produce emissions of diesel PM, which is classified as a toxic air contaminant (TAC) by CARB. Recommended mass emissions thresholds were developed as a tool to evaluate the significance of air quality impacts of projects by EDCAQMD in recognition of the county's attainment designations under the NAAQS and CAAQS. EDCAQMD would consider the impact on regional air quality to be significant if it would (EDCAQMD 2002):

- ▶ generate construction-related emissions of criteria air pollutant or precursors that exceed the EDCAQMD-recommended significance criteria of 82 pounds per day (lb/day) for ROG or NO_x. (Although EDCAQMD does not have an adopted quantitative threshold for PM₁₀, the EDCAQMD *Guide to Air Quality Assessment* [EDCAPCD 2002] indicates that if ROG and NO_x emissions are not significant, then it can be assumed that other components of exhaust emissions, in this case PM₁₀, are also not significant);
- ▶ result in long-term operational emissions of criteria air pollutant or precursors that exceed the EDCAQMD-recommended significance criteria of 82 lb/day for ROG or NO_x (see bullet above regarding PM₁₀);
- ▶ long-term operational mobile-source carbon monoxide (CO) emissions that would result in, or contribute to, an exceedance of the CAAQS or NAAQS for CO; and/or
- ▶ expose sensitive receptors to TAC concentrations that result in an incremental increase in cancer risk greater than 10 in one million and/or a noncarcinogenic hazard index of 1.0 or greater.

Construction related emissions have been modeled for another construction project in South Lake Tahoe which included a large paved area and building construction and that project did not exceed any EDCAQMD mass emissions thresholds (Conservancy 2018). Therefore, the proposed project which does not include a large paved area or building construction would not generate emissions that would exceed the EDCAQMD-recommended mass emissions thresholds for criteria pollutants and precursors. Based on guidance provided by EDCAQMD, projects that emit emissions beneath the recommended mass emissions thresholds would not contribute air pollutants in a manner such that EDCAQMD's trajectory to attaining the NAAQS and CAAQS would be impeded. This impact would be less than significant.

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. Past, present, and future construction and development projects (such as those listed in Table 3.21-1) contribute to adverse air quality on a cumulative basis. Air pollution is largely a cumulative impact by its very nature. A project's individual emissions contribute to existing cumulatively significant adverse air quality impacts with regard to ozone and PM₁₀, for which the air basin is in nonattainment.

As described under item "a," above, project emissions of ROG and NO_x would be below the mass emissions threshold of 82 lb/day. Because ROG and NO_x emissions would not exceed applicable thresholds, construction-related exhaust emissions of CO, PM₁₀, and PM_{2.5} would also be less than significant (EDCAPCD 2002). In addition, the project would comply with TRPA construction BMPs, EDCAQMD Rule 223, and the Lahontan RWQCB Tahoe Construction General Permit (Order No. R6T-2016-0010), which require implementation of a SWPPP and associated dust control BMPs. Therefore, the project contribution of criteria pollutants would not be cumulatively considerable.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals who may be particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. For the proposed project, the specific sites of sensitive receptors would be in the residential neighborhood in which the project would be constructed. Construction activities would result in short-term emissions of TACs in the form of diesel PM emissions. Construction is anticipated to be completed within one grading season - May 1 through Oct. 15. The work at the upper end of the project site (Lucinda Court to Overlook Court area) would likely take up to 6 weeks (Figures 2-2a and 2-2b). The David Lane work and construction of the storm drain piping to the Ruby Way basins would likely take up to 6 weeks. The work on Ruby Way itself would likely take up to 2 weeks. The Ruby Way basin work would likely take up to 4 weeks. The construction of the storm drain system down Wildwood from Overlook Court to Stewart Way would likely take up to 3 weeks. The proposed work in Pioneer Trail would involve 2 days of construction and 1 day of paving. Therefore, depending on where a residence is located, it could be subject to construction related emissions for approximately 6 weeks. Construction Emissions would be reduced through compliance with TRPA Code Section 65.18.A, which limits construction vehicle idling time to 5 minutes in California and through the use of existing power sources or clean-fuel generators would be required rather than temporary diesel-powered generators, which would reduce TAC emissions during construction. As described above under items "a" and "b," the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Operation of the project would include maintenance of the stormwater conveyance and infiltration systems. These maintenance activities would be temporary and would only occur approximately once every five years, limiting the potential for exposure of sensitive receptors to emissions for an extended period, and as described in item "b," above, the project would not exceed significance thresholds for vehicle emissions of ROG, NO_x, and PM₁₀. Project operations would not result in any new sources of TACs. Therefore, this impact would be less than significant.

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

Less than significant impact. As discussed previously, the proposed project would use diesel equipment for construction activities. This would constitute the only source of odor related to operation of activities under the proposed project. Diesel emissions can be detected as a form of odor, however, as discussed under items "b" and "c," above, emissions related to operation of equipment would be temporary. Thus, the proposed project would not result in other emissions that would lead to odors adversely affecting a substantial number of people. This impact would be less than significant.

3.3.3 Cumulative Impacts

As discussed under item "a," above, project emissions of ozone precursors (i.e., ROG and NO_x) and PM₁₀ would not exceed 82 lb/day, which is the mass emissions threshold that EDCAQMD recommends for determining whether construction and operation-related emissions would be cumulatively considerable.

The potential for the project to expose sensitive receptors to TACs is discussed under item "c," above. This analysis concludes that the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation and emissions-generating project activities would be temporary, limiting the potential for exposure to emissions for an extended period, project-related activity would not expose sensitive receptors to substantial levels of pollutants. None of the projects listed in the cumulative project list (Table 3.21-1) would include diesel PM-emitting activity in close proximity to any of the same sensitive receptors potentially affected by diesel PM-emitting activities associated with the proposed project. For this reason, project-related emissions of diesel PM would not be cumulatively considerable.

The project would not create objectionable odors affecting a substantial number or people, as discussed under item “d,” above. None of the cumulative projects listed in Table 3.21-1 would include odor-emitting activities in close proximity to any of the same sensitive receptors near the proposed project. For this reason, project-related odorous emissions would not be cumulatively considerable. As described above, the project would not make a considerable contribution to a significant cumulative air quality impact.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL CHECKLIST QUESTIONS	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 (CDFW) or the U.S. Fish and Wildlife Service (USFWS)?	☐	☐	☒	☐
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 CDFW or USFWS?	☐	☐	☒	☐
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 Environmental Setting

To evaluate and describe the presence or absence and quality of common and sensitive biological resources on the project site and in the project vicinity and identify potential effects of project implementation on those resources, biologists reviewed several existing data sources and conducted a reconnaissance survey of the project site on August 9, 2019. The data reviewed included:

- ▶ Ruby Way – Overlook Court Vegetative Resources Existing Conditions Technical Memorandum (WBS 2019),
- ▶ Records search of the California Natural Diversity Database (CNDDB) (CDFW 2016),
- ▶ TRPA survey and GIS data,
- ▶ California Native Plant Society Online Inventory of Rare and Endangered Plants (CNPS 2020),
- ▶ National Wetlands Inventory (NWI 2020), and

- ▶ California Tahoe Conservancy (Conservancy) South Tahoe Greenway Shared-Use Trail Studies:
 - Sensitive Plant Species and Noxious Weed Survey (WBS 2003)
 - Biological Survey Results (Hauge Brueck 2007)
 - Biological Assessment/Biological Evaluation for Aquatic and Terrestrial Species (LTBMU 2011a)
 - Migratory Landbird Conservation (LTBMU 2011b)
 - Management Indicator Species Report (LTBMU 2011c)
 - Aquatic and Terrestrial Species Impact Analysis Report (LTBMU 2011d)

SPECIAL-STATUS SPECIES

Special-status species include botanical species (plants, lichen, and fungi) and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource agencies and conservation organizations. Special-status species are defined as botanical species and animals in the following categories:

- ▶ Listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA).
- ▶ Designated as a candidate for listing as threatened or endangered under ESA.
- ▶ Designated as a sensitive, special interest, or threshold species by TRPA.
- ▶ Listed or proposed for listing as threatened or endangered under the California Endangered Species Act (CESA).
- ▶ Listed or a candidate for listing by the state of California as threatened or endangered under CESA.
- ▶ Listed as fully protected under the California Fish and Game Code.
- ▶ Animals identified by CDFW as species of special concern.
- ▶ Plants considered by CDFW to be “rare, threatened or endangered in California” (California Rare Plant Ranks of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere). The California Rare Plant Ranks correspond with and replace former California Native Plant Society listings. While these rankings do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under CEQA.
- ▶ Considered a locally-significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (State CEQA Guidelines Section 15125[c]) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G).
- ▶ Otherwise meets the definition of rare or endangered under State CEQA Guidelines Sections 15380(b) and (d).

The project site was evaluated for occurrence of special-status botanical species (plants, lichen, and fungi) and special-status wildlife. The query of TRPA data and the CNDDDB (CDFW 2016) conducted for this analysis did not identify any special-status botanical or special-status wildlife species documented in the project vicinity (Figure 3.4-1). The California Native Plant Society Online Inventory of Rare and Endangered Plants (CNPS 2020) identified six special-status plants that have the potential to occur in the project site. The project site does not have suitable habitat to support the species identified by CNPS (i.e., wet areas). The field survey included a botanical species list for the entire project site (WBS 2019). No special-status botanical species or potential habitat were identified during the field survey (WBS 2019). Two invasive weed species were identified in the field area, Dalmatian toadflax (*Linaria dalmatica*) on Lucinda Way and cheatgrass (*Bromus tectorum*) in scattered locations along the Ruby Way right-of-way.

SENSITIVE NATURAL COMMUNITIES AND HABITATS

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through the TRPA goals and policies and TRPA Code, Section 404 of the Clean Water Act, City of South Lake Tahoe General Plan, or other applicable regulations. Sensitive natural habitats may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species. Many of these communities are tracked in the CNDDDB. No sensitive natural communities and habitats are present within the City rights-of-way and public parcels where the drainage and erosion control project is proposed. The California Habitat Wildlife Relationships (CHWR) model maps the project site as mostly Jeffrey Pine Forest and Urban (CWHR 2019). The existing vegetation in the project site is dominated by shrubs and sub shrubs in the understory and by Jeffrey pine (*Pinus jeffreyi*) and white fir (*Abies concolor*) in the overstory. A dominant shrub in the understory, typical for this ecosystem, is chinquapin (*Chrysolepis sempervirens*). Drainageways and parcels behind residential lots include non-native species seeded as part of past revegetation efforts (WBS 2019).

3.4.2 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 CDFW or USFWS?**

Special-Status Botanical Species

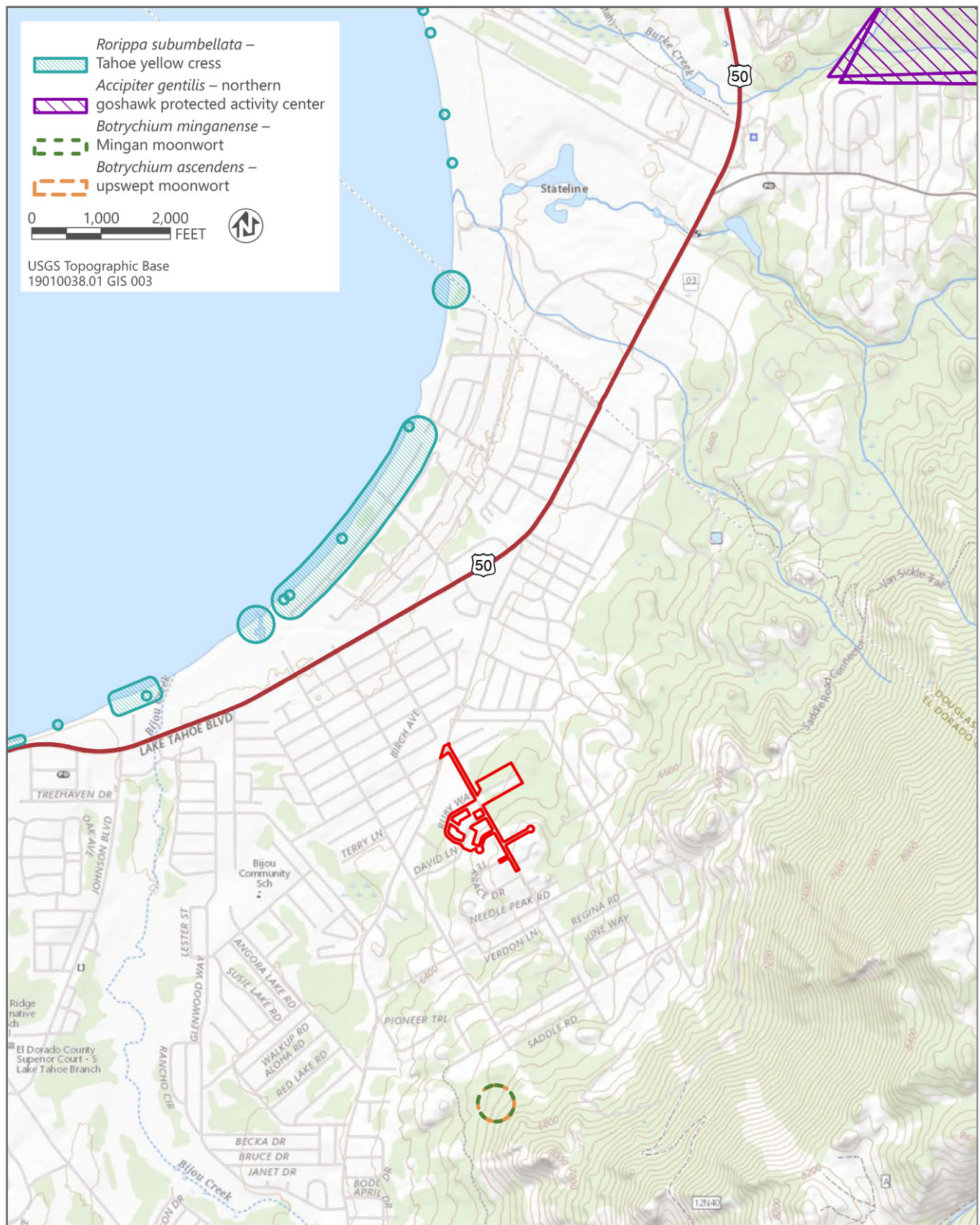
Less than significant impact. As discussed in Section 3.4.1, "Environmental Setting," special-status botanical species have not been recorded in the project site and were not identified during the field survey conducted for the project. Additionally, the project site has been previously disturbed by road construction and residential development. No special-status botanical species are expected to occur on the project site or be directly affected by the project. Therefore, potential project-related disturbances to special-status botanical species and their suitable habitats would be less than significant.

Special-Status Wildlife

Less than significant impact. As discussed in Section 3.4.1, "Environmental Setting," no special-status wildlife species have been documented on the project site, and because of previous habitat disturbance and the level of human activity, the site is unlikely to support suitable habitat for any special-status wildlife species. Therefore, project construction and maintenance would not directly affect special-status wildlife species. The impact 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 CDFW or USFWS?**

Less than significant impact. The proposed drainage and erosion control project would be located mostly on a previously disturbed City rights-of-way and publicly owned parcels. No riparian habitats or other sensitive natural communities are present in the project site (WBS 2019). Therefore, no riparian vegetation or other sensitive habitat would be removed. Impacts to riparian or other sensitive habitats would be less than significant.



Source: Adapted by Ascent Environmental in 2020

Figure 3.4-1 Special-Status Species Near the Project Site

- 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 proposed drainage and erosion control project would be located mostly on previously disturbed City rights-of-way and publicly owned parcels. No wetlands are mapped in the project site on the National Wetlands Inventory (NWI 2020). No wetlands were identified in the project area during the field survey. Thus, impacts to federally protected wetlands 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?**

No impact. The project site does not contain any streams or rivers that would support fish species nor does it support wildlife nursery sites or provide important animal movement functions. Construction of the proposed drainage and erosion control project would not create any additional barriers to wildlife movement locally or regionally. No impact would occur.

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

Less than significant impact. Twenty-three Jeffrey pine trees are proposed for removal to construct the infiltration facilities and maintenance roads proposed as part of the project. The trees proposed for removal are shown on Figures 2-2a and 2-2b in Chapter 2, "Project Description." The trees range from 8 to 36 inches in diameter at breast height (dbh). The removal of trees greater than 14 inches dbh requires a permit from TRPA in accordance with TRPA Code Section 61.1. Other trees are proposed for removal in the area and on the project site by the Conservancy as part of a separate, but partially overlapping, forest fuels management project. The Conservancy's forest fuels treatment activities would occur prior to construction of the proposed project. The removal of 23 trees as part of the proposed project in a heavily wooded area adjacent to an existing neighborhood would not conflict with any policies or ordinances protecting biological resources. The impact would be less than significant.

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

No impact. The project site is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan area. Thus, the project does not conflict with any local, regional, or state habitat conservation plans and therefore no impact would occur.

3.4.3 Cumulative Impacts

The proposed drainage and erosion control project would be located in a residential development and is surrounded by houses, roads, and recreational trails. As discussed above, the project site does not provide suitable habitat for special-status species or other important habitat functions, and the construction and maintenance of the proposed stormwater conveyance and infiltration system would have no impact or a less-than-significant impact on biological resources. In addition, sufficient protections are in place by TRPA, the City of South Lake Tahoe, the U.S. Army Corps of Engineers, the Lahontan RWQCB, and the U.S. Forest Service, Lake Tahoe Basin Management Unit that minimize biological resources impacts of other projects within the Tahoe region. Therefore, the construction and maintenance of the proposed project would not combine with impacts of other projects to add considerably to any cumulative impacts on biological resources in the region, and impacts would be considered less than significant.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL CHECKLIST QUESTIONS	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) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.5.1 Environmental Setting

This contextual background described below draws from historical, archaeological, and ethnographic studies completed by consulting archaeologist, Tim Spillane, MA, RPA, with Natural Investigations Company in support of this environmental document (Spillane 2019).

PREHISTORIC OVERVIEW

The earliest period of human occupation in the project vicinity dates to approximately 9,000 years ago during a time of Early Holocene deglaciation and warming. Prior to this time, climatic data indicate the upper elevations in the northern Sierra were covered in glacial ice (Davis 1982). By 10,000 years ago, tundra vegetation was no longer present in the Tahoe Basin, indicating the environment was more hospitable to humans (Elston et al. 1977). Large, wide-stemmed projectile points, which imply an emphasis on the hunting of large game, are characteristic of the pre-Archaic Tahoe Reach Phase (Elston et al. 1977) and have been found on tributaries of the Truckee River, including Squaw and Deer Creeks.

Middle Holocene (Spoooner Phase) (~8,000-4,500 cal BP)

The Early Archaic archaeological record during the Middle Holocene is sparse for the Spooner Phase in the Truckee Basin and for anywhere in the western Great Basin or the eastern Sierra (Elston et al. 1977). Climatic and botanical data indicate the Middle Holocene from about 7,500 to about 4,500 years ago was significantly warmer and drier than any time before or since (Wigand and Rhode 2002). It is feasible that significant shifts in seasonal precipitation during the Middle Holocene may be related to the ca. 7,000 BP explosive eruption of Mount Mazama in the Cascades and the subsequent ashfall (Davis 1982). As a result of declining resources, there is a dramatic reduction in the archaeological record for this period. After the extreme drought ended, modern forests developed, but subsequent rising of the Lake Tahoe water level could have inundated many archaeological sites from these early occupation phases (Lindström et al. 2007).

Early Late Holocene (Martis Complex) (4,500-2,000 cal BP)

The Martis Complex is the earliest well-documented cultural element in this region. During this period, the drought cycles of the Middle Holocene ceased (Wigand and Rhode 2002). There is an increase in the number of documented Middle Archaic archaeological sites during this early Late Holocene period since increased precipitation "probably created more marsh and lacustrine resources than had existed before" (Elston 1982). The most distinguishing

characteristic of the Martis Complex is the preferential use of basalt, not chert or obsidian, for the manufacture of chipped stone tools. The fundamental subsistence economy during the Martis Complex has thus been interpreted as hunting and seed collecting, with seasonal movements between the uplands in the spring and summer, and lower elevations in the fall and winter.

Middle Late Holocene (Early Kings Beach Complex) (2000-1000 cal BP)

The climatic and palynological data indicate there was a decrease in winter precipitation and a warming and drying trend in the western Great Basin beginning around 2,000 years ago (Davis 1982). A lowered water level is documented south of Lake Tahoe at Ralston Ridge Bog, Pyramid Lake in western Nevada, and Eagle Lake in Lassen County in northeastern California. Between 1,600 and 1,200 years ago, the records at Eagle Lake indicate there may have been a 400-year wetter period. In addition to the environmental changes, there are dramatic technological changes in the archaeological record during this period. Evidenced by about 1,500 years ago, the Kings Beach Complex is characterized by an economy focused on fishing and gathering. Similar to the preceding Martis Complex, the archaeological record indicates there were seasonal movements between the uplands in the spring and summer, and lower elevations in the fall and winter. Obsidian and chert, instead of basalt, were mainly used to manufacture flaked tools. This shift in preference, or availability of these types of toolstone, suggests there was an increase in trade during this period. Occupation during this period expanded into previously under-utilized habitats, likely in search of food sources (Young and Rosenthal 2013). Milling equipment used during this period was predominantly bedrock mortars, with pestles made from cobbles.

Latest Holocene (Late Kings Beach Complex) (post-1,000 cal BP)

After 1,000 years ago, particularly during the Medieval Climatic Anomaly, periods of drought caused water levels in Sierran lakes and other western lakes to drop considerably (Wigand 2005). Many archaeologists have noted this period coincided with major, documented shifts in subsistence and settlement patterns in many areas of California and the Great Basin. Some of these patterns include a decrease in processing of large terrestrial game, an intensification of plant food use, and shifts from occupation of semi-sedentary villages to ephemeral camps. The introduction of Desert side-notched arrow points appears to have coincided with the more ephemeral settlement patterns that developed toward the end of the prehistoric period.

ETHNOGRAPHIC OVERVIEW

The Lake Tahoe area is the nucleus of Washoe territory and is considered by the Washoe to be the “physical and spiritual center of the Washoe world” (Lindström and Hall 1994). Prehistoric remains in the traditional Washoe territory are considered by the Washoe to be of their direct ancestors. Washoe Tribe members point to the lack of an oral tradition of migration or mass movement to support that the prehistoric history of the Tahoe Basin is the history of the Washoe Tribe (Lindström et al. 2007). The project area falls within the traditional territory of the northern Washoe, or Wélmelti’. There are little or no records of the Washoe until after the 1849 California gold rush and the 1858 Nevada silver strike because of their remoteness in the high Sierra. Since that time, considerable ethnographic work with the Washoe has been accomplished, which continues today (Downs 1966; d’Avezedo 1986). Ethnographers have noted that the Washoe tended to avoid living at sacred places, including one that is close to the current project area (Downs 1966; d’Avezedo 1986). Permanent winter villages were established by local groups on high ground near springs and rivers, usually at the ecotone of several ecological zones. Temporary summer dwellings were dome-shaped and thatched with grass and tule. The Euro-American commercial fisheries and loggers soon prevented the Washoe from fishing in Lake Tahoe and other prime areas. By 1859, the Washoe were urged to move to proposed reservations at Pyramid and Walker Lakes with the Paiutes, but Washoe leaders refused to take their people to the homeland of a tribe that was now their enemy. In 1936, the Washoe Tribe of Nevada and California was formed under regulations of the 1934 Indian Reorganization Act, and started taking actions on their own behalf. They submitted land compensation claims to the Indian Claims Commission along with other California and Nevada tribes, and received a monetary award in the 1970s, which the Washoe invested in lands and businesses (d’Avezedo 1986).

HISTORIC OVERVIEW

General History

Post-contact history for the State of California generally is divided into three specific periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). The Spanish did not explore the eastern edges of the Central Valley and the Sierra Nevada until the early 1800s (Gunsky 1989). During the Mexican Period in 1844, John C. Frémont crossed the Sierra Nevada near Lake Tahoe and descended the west slope in proximity to the American River, which he eventually followed to Sutter's Fort. The American Period was initiated in 1848 with the end of the Mexican–American War, as well as with the discovery of gold that same year. The resulting Gold Rush era influenced the history of California and the nation. At the same time, vast influx of immigrants had a devastating impact on the lives of indigenous Californians in the Central Valley and all along the Sierra Nevada foothills (Chartkoff and Chartkoff 1984). The mass introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation accompanied the tens of thousands of gold seekers (Gunsky 1989).

Local History

El Dorado County was one of California's original 27 counties and its history is tied to the discovery in January 1848 of gold at Sutter's Mill on the American River in Coloma. Travel over the Carson Pass on the Carson Emigrant Road through today's El Dorado County was profuse. By 1849, nearly 90,000 people had journeyed to the gold fields of California and in 1850 California became the thirty-first state, largely as a result of the Gold Rush. Coloma was the first county seat, although it was superseded by Placerville in 1857. Few of the mining camps, such as Diamond Springs, El Dorado, and Placerville, developed into permanent towns with schools, stores, hotels, mills, residences, and roadways that continue to serve as economic and cultural centers in the county. In addition to mining, the economy in the mid- to late-1800s also depended on the related logging industry that supplied timber for the mines, farming and ranching, and agriculture. A number of narrow-gauge railroads, such as the Camino, Placerville & Lake Tahoe Line developed at the turn of the 20th century to serve the logging industry.

In 1859, the discovery of silver ore sparked a "reverse" rush by prospective miners to the Comstock Lode in Nevada. During the Comstock Era, roads in the Lake Tahoe Basin were used primarily to provide supplies and lumber to the mines, as well as a route for the miners heading east. The growth in traffic prompted the construction of private toll roads and an increasing number of teamsters in the area. Way stations connected by roads through the Tahoe Basin, most significantly by the Lake Tahoe Wagon Road, were constructed to provide the basic necessities to travelers.

The economy of the Lake Tahoe Basin later transitioned to tourism, and as lumbering as well as agriculture diminished in economic importance, the land became more valuable for residential, retail, and recreational purposes.

Project Site History

A review of historical aeriels and topographic maps shows that the project site has been subject to limited historical development, with the majority of construction occurring in the late-1960s and early 1970s, though some earlier development took place along Pioneer Trail to the northwest beginning in the 19th century. The 1889 USGS Markleeville 30-minute quadrangle shows that Pioneer Trail was in place northwest of the project area by that time. The next USGS map to show further development is the 1955 Bijou 7.5-minute quadrangle (USGS 1955). By that year Wildwood Avenue had been constructed, along with three residences to its northeast and three to its northwest, just north of present-day Ruby Way. All of this development is located just outside of the project area. By 1971, the project area appears much the same as it is today, with Markofer Way, Stewart Way, and Ruby Way, David Lane, Overlook Court, Lucinda Court, and Terrace Drive, all having been constructed and surrounded by dozens of residential properties (USGS 1971). An historical aerial photograph dated to 1969 indicates that much of this later development surrounding the project area had occurred by that time (NETR 2019).

RECORD SEARCHES

In support of this document a California Historical Resources Information System (CHRIS) records search was performed at the North Central Information Center located on the campus of California State University, Sacramento. The CHRIS search was conducted by Natural Investigations Company Principal, Cindy Arrington, on September 10, 2019. The records search was completed to determine the extent to which the project area had been previously surveyed, as well as the number and type of known cultural resources present within a 0.5-mile radius of the project site.

Prior Studies

The CHRIS records search indicates that a total of 12 prior cultural resource studies have been completed within the 0.5-mile search radius. Three of the previous investigations, included portions of the project area. The previous investigations were completed between 1975 and 2018.

Previously Recorded Resources

The CHRIS records search also indicates that no prehistoric cultural resources have been previously recorded in the project area, though three historic-era cultural resources have been previously recorded within the 0.5-mile search radius. One historic resource is the site of the historical Keller Residence, which includes structural features, including a rock foundation, concrete structure foundation, ornamental landscaping, and domestic refuse such as timber boards, bottle glass shards, and cutlery. The site may overly a portion of McComber's Station, an early weigh station once present along Pioneer Trail. It was originally recorded by Elliott L. Graham of the Lake Valley Ranger District, Eldorado National Forest, though no date is provided on the original site record. It was later update in 1992 by S.G. Lindström. The other two resources within 0.5 mile of the project area were also recorded by Lindström in 1992. One resource is an isolated heavy gauge metal fragment with a single drill hole, possibly associated with Pioneer Trail, and the other resource is either a 200-foot segment of Pioneer Trail, or a back route of the old Placerville Road dating to 1865 or earlier. No features were found in association with the roadway segment and it has been partially realigned, widened, paved, and incorporated into the modern transportation system, negatively impacting its integrity. While Lindström concluded that the resource does not meet California Register of Historical Resources significance criteria at the national or state level, it is potentially significant at the local level for its association with the theme of historical transportation in the Tahoe Basin.

Field Survey Results

An intensive pedestrian survey of the project area was conducted on September 13, 2019 by Natural Investigations Company archaeologist, Tim Spillane. Transects for the pedestrian survey were spaced at no greater than 15-meter intervals. All visible ground surfaces within the project area were carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., animal burrows, embankment, dirt roads, cut banks) were visually inspected.

One multicomponent archaeological site was identified during the field survey. The historic component consists of a mixed scatter of historical and modern refuse associated with numerous short-term transient encampments. The prehistoric component consists of a bedrock mortar with five non-parabolic, flat-bottomed cavities. A thorough attempt was made to identify associated prehistoric artifacts in the immediate area of the mortar, though no material of the kind was found. This site is located more than 350 feet from the footprint of proposed improvements associated with the drainage and erosion control project (i.e., proposed project). As stated in Chapter 2, "Project Description," a construction limit fence would prevent any equipment from accessing areas outside of the area of proposed improvements.

Sacred Lands File Search

Natural Investigations Company contacted the Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File to identify any tribal resources or sacred sites within or near the project area. The reply from the NAHC, dated September 24, 2019, states that the search returned negative results for Native American resources

in the vicinity of the Project. The NAHC provided contact information for the Washoe Tribe of Nevada and California, which is affiliated with the region, and recommended that they be contacted for more information on the potential for tribal cultural resources within the project area.

Natural Investigations Company sent a project information letter and map via certified mail to Mr. Darrel Cruz of the Washoe Tribal Historic Preservation Office on September 25, 2019. A digital copy of the documents was also sent to Mr. Cruz via email on September 26, 2019. Follow-up phone calls were then made on October 4 and 7, 2019. Mr. Cruz responded via email on October 10, 2019 requesting additional information about the proposed project and how it might affect cultural resources. Mr. Cruz also requested a digital copy of the cultural resources assessment prepared in support of this document and an on-site meeting so that he could gain a better understanding of the project setting and work to be undertaken. Natural Investigations Company called Mr. Cruz on the same day to discuss these details. A digital copy of the assessment was sent to Mr. Cruz via email on October 11, 2019 and an on-site meeting was scheduled for January 8, 2020. At the meeting Mr. Cruz requested that Natural Investigations Company's Principal Investigator, Tim Spillane, call him to discuss his comments regarding the project. On January 8, 2020, Tim Spillane called Mr. Cruz to discuss the site visit. Mr. Cruz expressed that he would like to have a representative of the Tribe monitor all ground-disturbing work completed within the boundaries of the multicomponent archaeological site (RW-S-001) identified within the project area during the survey. He also recommended that a buffer of 50 feet be established around the prehistoric component of the site, which consists of bedrock mortar, and that no heavy equipment be used within that 50-foot area during Project-related work. He suggested that any trees in need of removal within this 50-foot area be felled using hand tools to minimize the effect on the site. Finally, Mr. Cruz noted that a potential association exists between the historical component of the site and indigenous use of the area. He noted that a Tribal presence in the area has been continuous into the historic and modern periods and so use of the mortar may have continued into these later periods as well. He noted that for this reason some of the historical refuse surrounding the mortar may represent discards connected with later indigenous visits to the location for reuse of the mortar. Such a link could be supported by detailed analysis of artifact constituents. The proposed project does not propose work within 350 feet of the multi-component site. For this reason, Mr. Cruz agreed that tribal monitoring is not necessary.

3.5.2 Discussion

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

No impact. Historical (or architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads). No historic resources were identified during background research or field surveys within the area of proposed improvements. In addition, the project site has been impacted by development of the roads and neighborhood. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource. There would be no impact.

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

Less than significant impact. Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). The 2019 record search did not identify any known archaeological resources within the project site. During the pedestrian survey, one refuse scatter and bedrock mortar associated site was identified more than 350 feet away from where improvements are proposed. As stated in Chapter 2, "Project Description," a construction limit fence would prevent any equipment from accessing any area outside of the proposed improvements. If a buried or concealed resource is inadvertently discovered during ground-disturbing activities, cessation of work and implementation of proper recovery and/or preservation procedures would occur. The proposed project would not cause a substantial adverse change in the significance of an archaeological resource. The impact would be less than significant.

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

Less than significant impact. Based on documentary research, no evidence suggests that any prehistoric or historic era marked or un-marked human interments are present within or in the immediate vicinity of the project site. Additionally, due to the disturbance of the project area from residential development, it is unlikely that previously unknown Native American or other graves could be present within the project site and that project-related activities could uncover previously unknown human remains. California Health and Safety Code Section 7050.5 states that in the unlikely event that human remains are discovered, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC. No further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. For these reasons, it is unlikely that the project would disturb any human remains, including those interred outside of formal cemeteries. This is a less-than-significant impact.

3.5.3 Cumulative Impacts

The cultural resources analysis considers a broad regional system of which the resources are a part of the cumulative context. The cumulative context for historical resources is the Tahoe Basin where common patterns of historic-era settlement have occurred over roughly the past two centuries. The cumulative context for archaeological resources is the Tahoe Basin portion of the Washoe territory. Based on previous cultural resource surveys and research, the Tahoe Basin has been inhabited by prehistoric and historic people for thousands of years. Because all significant cultural resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Cultural resources are best understood in the context of the entirety of the cultural system of which they are a part and the loss of any one archaeological site affects all others in a region. The boundaries of an archaeologically important site extend beyond the site boundaries. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on project or parcel boundaries. Because the proposed project's impacts on cultural resources would be less than significant, the proposed project would not contribute to a cumulative loss of cultural resources. Therefore, the project would not make a considerable contribution to a significant cumulative impact.

3.6 ENERGY

ENVIRONMENTAL CHECKLIST QUESTIONS	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

The project proposes the installation of underground storm drain pipes, several infiltration facilities, and maintenance roads. Maintenance of the stormwater system would occur once every 5 years and City personnel would access the maintenance roads a minimum of two times annually to inspect the system. Energy would be consumed under the proposed project in the form of fossil fuel (e.g., diesel and other petroleum fuels) combustion in the engines of passenger commute vehicles and construction equipment, which would be used by workers accessing treatment areas and during implementation and maintenance of the project. The City of South Lake Tahoe adopted a resolution in April of 2017 to achieve 100 percent renewable electricity by 2032.

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. Energy would be required to construct and operate the proposed project, as well as to produce and transport construction materials to the proposed project site. The additional energy required to maintain the site would be inconsequential, as the storm drain system would be maintained within the normal maintenance schedule of the City. Most energy consumption would result from operation of construction equipment and vehicle trips associated with commuting by construction workers and haul trucks supplying materials. Construction equipment use and associated energy consumption would be typical of that associated with the construction of nonresidential projects in a developed area like the proposed project area.

Fuel consumption associated with vehicle trips related to the proposed project would not be considered inefficient, wasteful, or unnecessary. Furthermore, state and federal regulations regarding standards for vehicles are designed to reduce wasteful, unnecessary, and inefficient use of fuel. For these reasons, the proposed Project's energy consumption would not be considered wasteful, inefficient, or unnecessary. This impact would be less than significant.

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

No impact. There are many state plans for renewable energy or energy efficiency including the Warren-Alquist Act; State of California Energy Action Plan; Assembly Bills 2076, 1007, and 32; Senate Bills 1078, X1-2, 100, 350, 32, and 375; and Executive Order B-30-15. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and the use of renewable energy sources. The City of South Lake Tahoe's general plan includes policies to support the reduction of

greenhouse gas emissions. Additionally, Goal E-1 of the TRPA Regional Plan is to promote energy conservation programs and development of alternative energy sources to lessen dependence on scarce and high-cost energy supplies. The proposed project would not conflict or obstruct any state or local plans for renewable energy or energy efficiency. Therefore, there would be no impact.

3.6.3 Cumulative Impacts

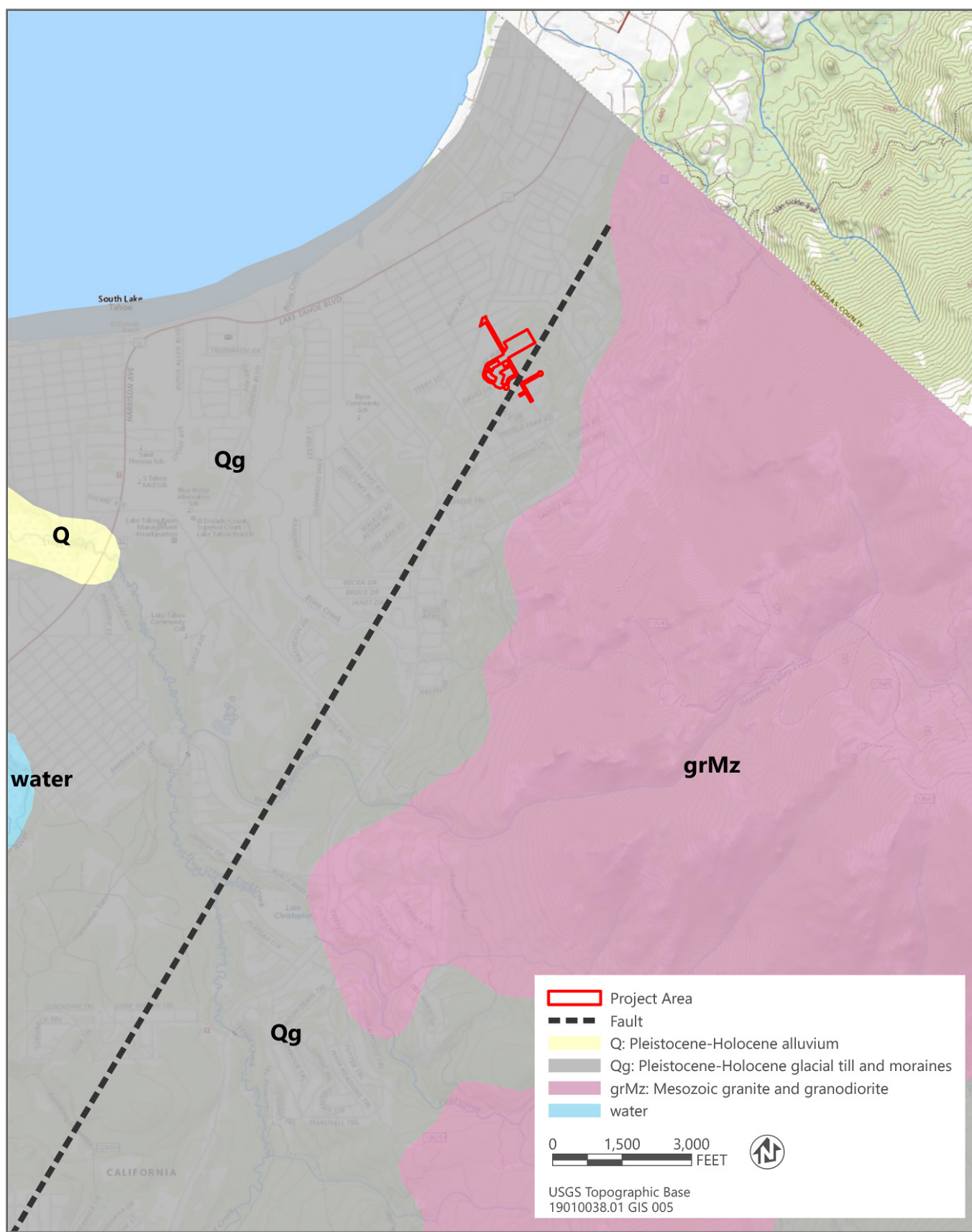
The proposed project would not result in significant cumulative impacts on energy consumption. Construction would be temporary, and maintenance of the proposed project would be conducted approximately every 5 years alongside maintenance of existing City infiltration systems. Due to the minor energy use associated with typical drainage and erosion control projects, the proposed project would not have a cumulatively considerable impact on energy.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL CHECKLIST QUESTIONS	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

The Tahoe Basin was formed through faulting and volcanism more than 2 million years ago and consists of granitic (plutonic), metamorphic, and volcanic rocks. The project site is located in the southern portion of the Tahoe Basin, where Pleistocene-Holocene glacial till and moraines dominate the geology (Figure 3.7-1) (Saucedo 2005). The project area is sloped steeply toward Lake Tahoe. The project site is located in a seismically-active area and is crossed by an approximate location of a fault associated with the Tahoe Valley Fault Zone. There are three active faults or fault zones within the Tahoe Basin: the West Tahoe-Dollar Point Fault (the longest at 45 kilometers); the Stateline-North Tahoe Fault; and the Incline Village Fault (Brothers et al. 2009). Relative to the project site, the West Tahoe-Dollar Point Fault is located approximately 4 miles to the west and runs toward the north, the Stateline-North Tahoe Fault is approximately 8 miles to the north, and the Incline Village Fault is approximately 16 miles to the north. Recent studies indicate that all three of these faults have experienced large rupture events within recent geologic time (Dingler 2009). The nearest mapped Alquist-Priolo Earthquake Fault Zone is located along the Genoa Fault, approximately 6 miles east of the project site (CGS 2010).



Source: Data downloaded from California Department of Conservation in 2011

Figure 3.7-1 Geology of the Project Site

City of South Lake Tahoe

Ruby Way – Overlook Court Drainage and Erosion Control Project

There are four soil types at the project site: Oneidas coarse sandy loam on 0-5 and 5-15 percent slopes; Cassenai gravelly loamy coarse on 5-15 percent slopes, very stony; Cassenai gravelly loamy coarse on 15-30 percent slopes; and Cagwin Rock outcrop complex on 15-30 percent slopes, extremely stony (Figure 3.7-2; Table 3.7-1; NRCS 2020). These soils are all formed from granodiorite and are not rated as a hydric soils. The Oneidas loam was formed from outwash and/or till derived from granodiorite, the Cassenai sand formed from colluvium from granodiorite, and the Cagwin Rock outcrop complex formed from colluvium over grus derived from granodiorite (NRCS 2020). The depth to the water table is over 80 inches for all soil types (NRCS 2020). The project would disturb 0.93 acre of soil (not including staging areas). The area where improvements are proposed would include 0.2 acre of existing disturbed area and 0.73 acre of undisturbed area. All areas would be stabilized through ground cover or revegetation at project completion per TRPA permit and Lahontan RWQCB Tahoe Construction General Permit requirements.

Table 3.7-1 Soils in the Project Area

Map Symbol	Soil Name	Soil Expansion Potential	Erosion Hazard *
7491	Oneidas coarse sandy loam 0-5 percent slopes	Low (0.0 percent linear extensibility)	0.28
7492	Oneidas coarse sandy loam 5-15 percent slopes	Low (0.0 percent linear extensibility)	0.28
7421	Cassenai gravelly loamy coarse sand 5-15 percent slopes, very stony	Low (0.3 percent linear extensibility)	0.10
7422	Cassenai gravelly loamy coarse sand 15-30 percent slopes	Low (0.3 percent linear extensibility)	0.10
7412	Cagwin Rock outcrop complex 15-30 percent slopes, extremely stony	Moderate (3.2 percent linear extensibility)	0.17

Source: NRCS 2020

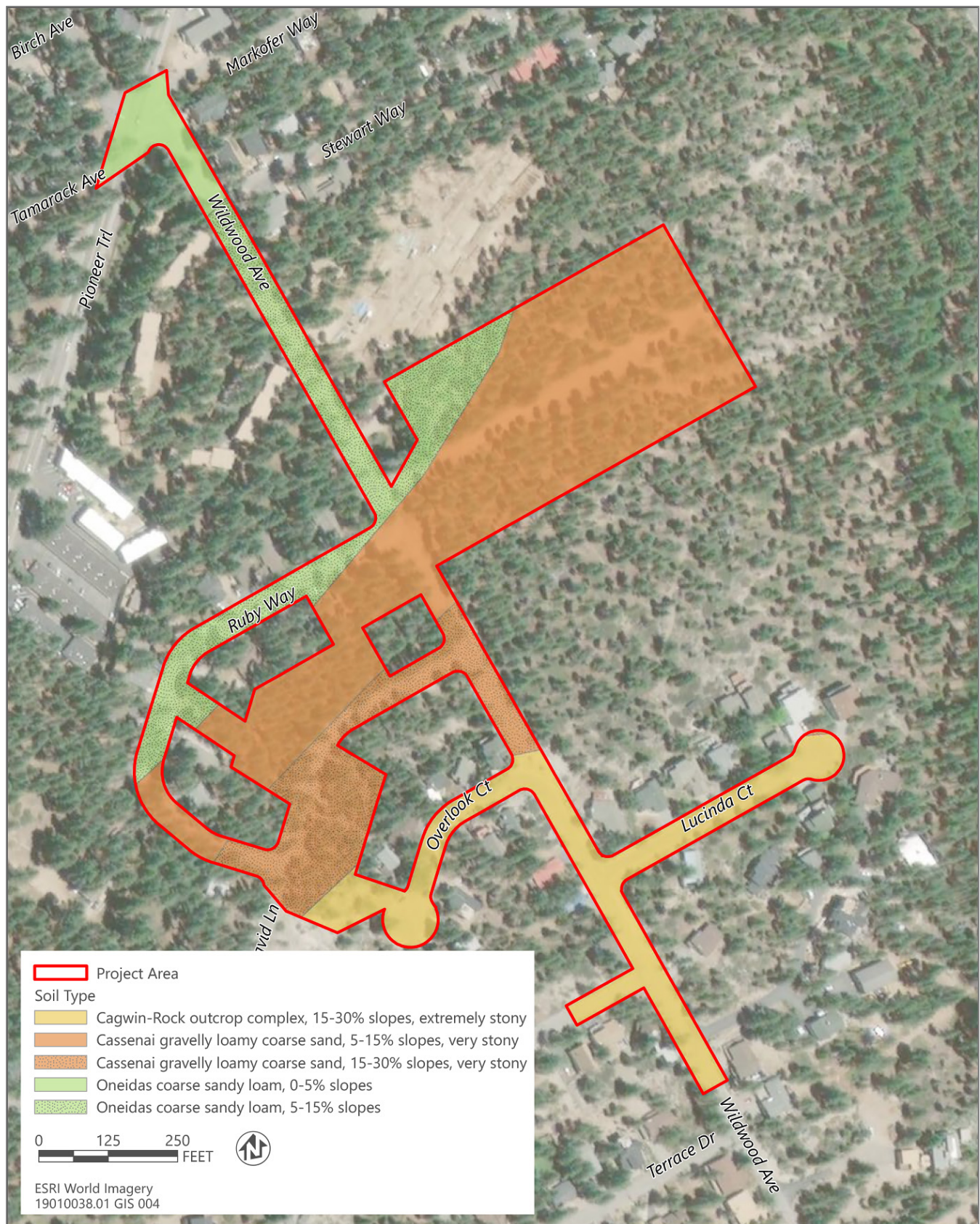
* Erosion factors range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

The existing site topography is fairly steep with the project area high point being near the top of Lucinda Court with an elevation of 6,505 feet and the low point at Pioneer Trail with an elevation of 6,280 feet. The site slopes generally to the west and northwest. Slopes along the upper roads within the project area vary but typically fall within the 9 to 14 percent range. Slopes along the abandoned section of Ruby Way are flatter (approximately 6 percent).

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.)

Less than significant impact. The Alquist-Priolo Act (Public Resources Code Sections 2621– 2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The project site is not located in an Alquist-Priolo Earthquake Fault Zone nor does the project propose any structures for human occupancy. The nearest mapped Alquist-Priolo Earthquake Fault Zone is located along the Genoa Fault, approximately 6 miles to the east of the project site (CGS 2010). One approximate or inferred fault crosses south of the project area so there is a potential for surface rupture at the site. However, because of the distance to an Alquist-Priolo Earthquake Fault Zone and the lack of proposed structures for human occupancy, this impact would be less than significant.



Source: Data downloaded from NRCS in 2020

Figure 3.7-2 Soils of the Project Site

ii) Strong seismic ground shaking?

Less than significant impact. Earthquakes centered on active regional faults in the area, such as the West Tahoe Fault or Genoa Fault, as well as the smaller Tahoe Valley Fault Zone would likely result in ground shaking at the site. Because of the lack of proposed structures for human occupancy this impact would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. Liquefaction occurs due to excess pore water pressure buildup in loose, saturated, granular soil. Cyclic loading, which occurs during an earthquake, typically causes an increase in pore water pressure within the soil which causes the soil to act like a liquid. Soil type, intensity of seismic ground motions, and the depth to groundwater are factors that determine liquefaction potential. Loose sands and peat deposits are most susceptible to liquefaction.

Liquefaction poses a hazard to engineered structures. No structures for human occupancy are proposed. It is unlikely that liquefaction could occur at the project site based on the soil types associated with the site and the over 80-inch depth to water table. Impacts associated with seismic-related ground failure would be less than significant.

iv) Landslides?

Less than significant impact. Though the project area is somewhat steep, there are no mapped historic landslides, which is the best indicator of future landslide risk, in the project area (DOC 2020). Because no structures are proposed for human occupancy and the lack of historic landslides in the project area, this impact would be less than significant.

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

Less than significant impact. Project grading for stormwater control structures could result in exposure of soil to potential wind and water erosion until the project site is effectively stabilized and revegetated. To minimize erosion potential during construction, the TRPA permit and the Lahontan RWQCB Construction General Permit would require implementation of BMPs, a dewatering plan (if required), and revegetation specifications. Temporary BMPs, as required by TRPA and Lahontan RWQCB, address soil erosion and the potential for the loss of topsoil during construction. Implementation of standard erosion-control measures would be required for all construction activities that expose soil. Grading operations are intended to control erosion and infiltrate stormwater. All maintenance roads would be stabilized with aggregate material. TRPA and Lahontan RWQCB limit earth-moving activities to between May 1 and October 15. The purpose of the project is to reduce erosion and improve infiltration of stormwater. Implementation of the required BMPs would reduce the potential for soil erosion and loss of top soil to a less-than-significant level.

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

Less than significant impact. As discussed in item "a-iv" above, the project would not result in an on- or off-site landslide. Linear extensibility of the soil on the project site ranges between 0 and 3.2 percent, therefore the lateral spreading potential is low (NRCS 2020). Subsidence is the motion of the surface of the earth as it shifts downward and is commonly caused by groundwater pumping (USGS 2000:1). No groundwater pumping is proposed as part of the project that could result in subsidence. In fact, stormwater infiltration and groundwater recharge would occur as a direct result of the project. As discussed in item "a-iii" above, it is unlikely that liquefaction could occur in the event of a large magnitude earthquake based on the soil type associated with the project site and the low water table. The project does not propose any habitable structures, therefore impacts associated with unstable soils would be less than significant.

- 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?**

Less than significant impact. Linear extensibility can be used to estimate the shrink-swell potential or expansive potential of soils. As discussed in item "c," above, the linear extensibility of the soil at the project site ranges between 0 and 3.2 percent, and therefore the shrink-swell potential is low to moderate (NRCS 2020). Because of the lack of proposed habitable structures, risks to life or property related to expansive soils are less than significant.

- 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. No septic system is proposed for this project. There would be no impact.

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

Less than significant impact. Igneous rocks such as those on which the project is proposed are not likely to yield paleontological resources (SVP 2010). Due to relatively shallow excavation required to install the stormwater control structures, it is unlikely that the project would directly or indirectly destroy unique paleontological resource or geologic features. The impact is less than significant.

3.7.3 Cumulative Impacts

The cumulative context for geology and soils is the Tahoe Basin. The purpose of the project is to improve drainage conditions and control erosion. As discussed in items "a-i" and "a-ii" above, no habitable structures are proposed as part of the project. Therefore, the proposed project would have no cumulative impact relative to fault rupture, strong seismic shaking, seismic-related ground failure, unstable geology, or expansive soils.

The Tahoe Basin contains steep slopes and areas of highly erosive soils. Ground disturbance in these areas has the potential to result in adverse effects due to erosion hazard and slope stability, both of which are primarily local, site-specific impacts. The proposed project and the related projects listed in Table 3.21-1 would be required to comply with regulations set forth by TRPA and Lahontan RWQCB. The proposed project is intended to reduce erosion and together with the related projects listed in Table 3.21-1 would result in less-than-significant cumulative effects related to soil erosion or loss of topsoil.

For these reasons, the project would not make a considerable contribution to a significant cumulative impact related to geology and soils.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL CHECKLIST QUESTIONS	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

SCIENTIFIC BASIS OF GREENHOUSE GASES AND CLIMATE CHANGE

Greenhouse gases (GHGs) such as carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, play a critical role in determining the earth's surface temperature. As solar radiation enters the earth's atmosphere from space, a portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back out toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation which is absorbed by GHGs that surround the earth. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This is known as the greenhouse effect and is responsible for maintaining a habitable climate on earth. Human-caused emissions of GHGs, such as burning of fossil fuels, are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:3, 5).

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013:467). The quantity of GHGs that ultimately result in climate change is not precisely known; but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

Greenhouse Gas Emission Sources

GHG emissions are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2017a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB 2017a).

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. Temporary construction-related activities for the proposed project would include excavation, site preparation, rock placement, aggregate placement, and revegetation. Construction activities are anticipated to occur in one construction season from May 1 to October 15. EDCAQMD does not have an adopted threshold for GHG emissions; therefore, the Placer County Air Pollution Control District De Minimis Threshold of Significance of 1,100 metric tons of CO₂ equivalent per year (MTCO₂e/year) is used in this analysis. Emissions associated with this project would be well below the emissions thresholds of 1,100 MTCO₂e/year because larger construction projects that involve grading, paving, and building construction have been calculated to be orders of magnitude under this threshold (Conservancy 2018). Given its nature and scale, the proposed drainage and erosion control project would result in fewer GHG emissions than a typical development project. Emissions would be further reduced through compliance with TRPA Code Section 65.1.8.A, which limits construction vehicle idling time to 5 minutes in California. The infiltration basins would need annual maintenance, which would involve construction equipment, but these activities would be limited and would be expected to generate emissions well below applicable emissions thresholds. Because construction and maintenance of the proposed project would result in annual GHG emissions below the most applicable threshold, these activities would not be anticipated to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Thus, this would be a less-than-significant impact.

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

Less than significant impact. In December 2017, CARB adopted its Climate Change Scoping Plan Update (Scoping Plan Update), which contains the main strategies California will use to reduce GHGs to reach the state's 2030 GHG emissions reduction target (CARB 2017b). This update builds upon the initial Scoping Plan with new strategies and recommendations. It defines CARB's climate change priorities required to meet the 2030 target, and also sets the groundwork to reach longer-term goals. In March 2008, the El Dorado County Board of Supervisors passed a resolution (El Dorado County 2008) that set goals related to transportation, planning and construction, and energy. The resolution called for implementation of positive environmental changes to reduce global impact, improve air quality and reduce dependence on landfills, promote alternative energies, and increase recycling. The Lake Tahoe Sustainability Action Plan provides tools to assist local governments, agencies, businesses, residents, visitors, and community groups with prioritizing and adopting consistent sustainability actions throughout the region. The Sustainability Action Plan represents an integrated approach to reducing GHG emissions and striving toward zero-impact in all aspects of sustainability. Among the sustainability actions identified in the Sustainable Action Plan is a recommendation to enforce idling time limitations to limit idling for all construction equipment to 5 minutes in California (Lake Tahoe Sustainability Communities Program 2013:4-28), which was later incorporated into TRPA Code Section 65.1.8.A. The proposed project would be required to comply with the idling restrictions in TRPA Code. Additionally, the City of South Lake Tahoe is developing a Climate Action Plan to meet its emissions reduction goals. For this reason and those discussed in item "a" above, the project related GHG emissions would not exceed any mass emission thresholds. Therefore, the project would not conflict with or obstruct implementation of the Lake Tahoe Sustainability Action Plan or CARB's Scoping Plan for achieving GHG reductions consistent with AB 32. This impact would be less than significant.

3.8.3 Cumulative Impacts

As discussed under item "a," above, annual construction GHG emissions would be well below the most applicable emissions thresholds of 1,100 MTCO₂e/year. Project emissions would be further reduced through compliance with TRPA Code Section 65.1.8.A, which limits construction vehicle idling time to 5 minutes in California. As described above under item "b," the project-related GHG emissions would not exceed the most applicable mass emission thresholds, which was developed to show consistency with the GHG emissions reduction targets in AB 32. Therefore,

for these reasons and in light of ongoing efforts to reduce GHG emissions (e.g., Climate Change Scoping Plan), the project's operational GHG emissions in combination with those of the other similar projects as listed in Table 3.21-1 would result in a less-than-significant cumulative impact with regard to GHG emissions and climate change. The project would not make a considerable contribution to a significant cumulative impact.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL CHECKLIST QUESTIONS	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 0.25 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 2 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

HAZARDOUS MATERIALS

Hazards in the vicinity of the project site are both human made and naturally occurring. Human-made hazards are generally associated with the potential risk of accidents from the transport of hazardous materials and waste to support various commercial and industrial land uses. Many chemicals used for household cleaning, construction, dry cleaning, film processing, landscaping, and automotive maintenance and repair are considered to generate hazardous materials and waste. In addition to human-made hazardous materials, there are numerous naturally occurring hazards in the region. These include radon gas, which is a naturally radioactive gas commonly found in all soil types and often concentrated in granite rock and granite soils, limited access for fire prevention personnel, and

larval mosquito habitats that are potential vectors of organisms that can cause the spread of disease. SWRCB maintains the Geotracker database, Department of Toxic Substances Control (DTSC) maintains the EnviroStor database which list sites containing recorded hazardous materials releases and provides information regarding the status of clean-up activities. Additionally, solid waste disposal sites or sites with active Cease and Desist Orders or Cleanup and Abatement orders are regulated by Lahontan RWQCB. Sites within 2 miles of the project site that require or are undergoing remediation and monitoring are listed in Table 3.9-1 below.

Table 3.9-1 Hazardous Materials Sites within 2 Miles of the Project Site

Site Name	Location	Status	Type of Hazard
Heavenly Mountain Resort	3860 Saddle Road	Open and upgradient	A release of petroleum hydrocarbons and volatile organic compounds occurred during the removal of an underground storage tank in 2019. Groundwater monitoring and remediation is ongoing.
Al's Ski Run Chevron	3659 Lake Tahoe Boulevard	Open and downgradient	Gasoline leak from underground storage tank. Groundwater monitoring and remediation is ongoing.
Tahoe Tom's Gas Station	4029 Lake Tahoe Boulevard	Open and downgradient	Gasoline leak from underground storage tank. Groundwater monitoring and remediation is ongoing.
Private Residence	3996 Meadow Road	Open and downgradient	Tetrachloroethylene (PCE) found in groundwater well. Groundwater monitoring and remediation is ongoing.

Source: SWRCB 2020

SCHOOLS

Schools in the vicinity of the project site include Bijou Community School about 0.5 mile to the west; South Tahoe Middle School about 1.4 miles to the west; Al Tahoe School, which houses after school and pre-school programs 1.3 miles to the west; and Lake Tahoe Community College 1.5 miles to the southwest.

AIRPORTS

The Lake Tahoe Airport is the nearest airport and is located approximately 3.4 miles southwest of the project site. There are no private airstrips in the vicinity of the project site. The Lake Tahoe Airport is a public-use airport that holds a Part 139 Airport Certification Status that allows for scheduled and/or unscheduled commercial service operations. However, there has been no scheduled passenger service at the airport since 2001 (CSLT 2017).

EMERGENCY RESPONSE AND EVACUATION PLANS

In consideration of the safety of residents and visitors of the South Lake Tahoe area, the City prepared an Evacuation Plan (CSLT 2014a) to be used in emergency situations. The project area is in the Heavenly evacuation zone and the evacuation route is to proceed to Pioneer Trail and then head east on Pioneer Trail toward Stateline, Nevada. The City of South Lake Tahoe Emergency Operations Plan (CSLT 2014b) describes the roles and operations of the departments and personnel of the city during a major emergency. The plan sets forth standard operating procedures for managing public emergencies resulting from floods, storms, earthquakes, tsunamis, hazardous materials incidents, and other natural or man-made disasters.

WILDLAND FIRE HAZARDS

The Lake Tahoe region is considered a fire environment because of the climate, steep topography, and high level of available fuel. The threat of catastrophic fire is a public safety concern. Prior to fire suppression policies and extensive logging in the region, natural fire regimes would have included frequent, low-intensity burns occurring at intervals of approximately 5 to 18 years, which would typically have thinned forest stands and removed hazardous ladder fuels. Fire suppression policies have allowed the development of vegetation complexes that are more susceptible to high-intensity burning (e.g., crown fires).

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped Fire Hazard Severity Zones (FHSZs) based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather. FHSZs are intended to identify areas where urban fires could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High. According to the CAL FIRE Fire Resource Assessment Program FHSZ Geographic Information System data, the project site is located within a Very High FHSZ Local Responsibility Area (CAL FIRE 2008). The Very High FHSZ is defined as wildland areas that support high to extreme fire behavior or developed/urban areas typically with at least 70 percent vegetation density.

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. Construction of the proposed project would involve the short-term use and storage of a variety of hazardous materials typically associated with construction (e.g., fuel, lubricants). This could result in accidents or upset of hazardous materials that could create hazards to people and the environment. Construction workers, maintenance personnel, and the general public could be exposed to hazards and hazardous materials as a result of improper handling or use of these materials during construction, as a result of accidents during transport of these materials, or releases during a fire or other emergency. The extent of the hazard would depend in large part on type of material, the volume released, and the mechanism of release (e.g., spill on the ground at the project site versus a spill on a road during transport).

Required compliance with TRPA permit conditions and the Lahontan RWQCB Tahoe Construction General Permit (Order No. R6T-20160010) would include BMPs and other measures to prevent releases of hazardous materials and contain and clean-up any accidental releases that might occur (e.g., rupture of a hydraulic line on a piece of equipment releasing hydraulic fluid or spill of transformer oil).

The city, construction contractors, and others associated with implementing the project would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations, including the California Division of Occupational Safety and Health and the California Department of Toxic Substances Control (DTSC) requirements and manufacturer's instructions. Transportation of hazardous materials on area roadways is also regulated by California Highway Patrol (CHP) and Caltrans. Because the use of hazardous materials in project construction would be typical for construction of infiltration basins and erosion control projects, and because the project would be required to implement and comply with existing hazardous materials regulations, the project would not create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials. Therefore, the impact to the public and the environment from exposure to hazardous materials 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. As noted in item "a," above, the construction of the proposed project would involve the use of heavy construction equipment, which uses small amounts of hazardous materials such as oils, fuels, and other potentially flammable substances that are typically associated with construction activities. As required by TRPA and the Lahontan RWQCB, the project contractor would establish on-site construction staging areas where hazardous materials would be stored during construction. TRPA would require the project contractor to employ BMPs for spill control and prevention. Potential impacts from construction related accidental spills of hazardous materials would be considered less than significant with the standard prevention and management practices in place.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?**

No impact. The project is not proposed within 0.25 mile of an existing or proposed school. Therefore, there would be no impact.

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

No impact. The project site is not included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, including the DTSC EnviroStor database, the GeoTracker database, solid waste disposal sites or sites with active Cease and Desist Orders or Cleanup and Abatement orders issued by Lahontan RWQCB, or the list of hazardous waste facilities subject to corrective action identified by DTSC. Therefore, the proposed project would have no impact relative to construction on a hazardous waste site.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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 is located 3.4 miles from the Lake Tahoe Airport, which is owned and operated by the City of South Lake Tahoe. The project is not located within an airport land use plan. Therefore, the project would not result in a safety hazard or excessive noise for people residing or working in the project area. There would be no impact associated with safety hazards associated with air traffic.

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

Less than significant impact. The emergency evacuation plan for the City of South Lake Tahoe directs traffic from the project area to evacuate via Pioneer Trail to the east. Except during construction, the proposed drainage and erosion control project would not add additional vehicle traffic during an evacuation scenario that would impair or physically interfere with evacuation. For a short period of time during construction in the right-of-way, one lane of a road in the project area could be blocked but traffic would be able to proceed using the other lane. This impact would be less than significant.

- 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 located in a Very High FHSZ (CAL FIRE 2009). The proposed project does not consist of any habitable structures and would remove 23 trees that could burn in the case of fire. Therefore, the project would not create a greater fire risk than currently exists. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. This impact would be less than significant.

3.9.3 Cumulative Impacts

Although some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are more typically isolated to a small geographic area. These relatively isolated areas of contamination typically do not combine in a cumulative manner with other sites of hazardous materials contamination. As described in item "d," above, the project is not proposed in an area of known contamination. There are no incidents of widespread hazardous materials contamination with different sources of contamination interacting on a cumulative basis. The

project and other cumulative projects identified in Table 3.21-1 would be required to comply with existing federal, state, and local hazardous materials regulations would apply, limiting the potential for releases and contamination and requiring clean-up when releases or contamination do occur. For these reasons, the project would not result in a considerable contribution to a cumulative impact on the public or the environment from exposure to hazardous materials. Therefore, this would be a less-than-significant cumulative impact.

The geographic area for cumulative impacts related to wildland fire hazards encompasses the South Lake Tahoe area. The project site is located within a very high fire hazard area. Past fires in the region have resulted in significant losses of property, and substantial damage to habitat and environmental resources. Historic fire suppression and other forest land management practices have allowed fuels to accumulate in many areas, contributing to the higher severity of wildfires when they do occur. Additionally, past development in the forested landscape has increased the risk to life and property when fires do occur and increased the potential for ignition of wildland fires through increased human presence and activity. The proposed project does not propose any structures and would remove 14 trees thereby reducing the fire hazard within the project area. Additionally, the Conservancy is planning a forest fuel reduction project adjacent and partially overlapping with the proposed project which would help reduce the wildland fire hazard near the project. Therefore, the project would not result in a considerable contribution to a temporary or permanent cumulative impact on wildland fire hazards and this would be a less-than-significant cumulative impact.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL CHECKLIST QUESTIONS	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

REGIONAL HYDROLOGY

Lake Tahoe is fed by 63 tributary streams that drain directly to the lake. The Truckee River at the northwest end of the Tahoe Basin is the lake's only outlet, flowing to Pyramid Lake in Nevada. A dam constructed at Tahoe City in the early 1900s regulates water flow to the Truckee River from the natural rim (6,223 feet above sea level) to the maximum legal lake level of 6,229.1 feet. The lake is 12 miles wide and 22 miles long with 72 miles of shoreline. Average precipitation, measured at almost 52.43 inches a year in South Lake Tahoe, generally falls as snow in the higher elevations and as snow and rain in the lower elevations from October to May (U.S. Climate Data 2020). Peak stream runoff in the Tahoe Basin is typically triggered by spring snowmelt in May and June. The snow pack near the

lakeshore predominantly melts before the peak in snowmelt and runoff from the higher elevations. Land cover within the Tahoe Basin is primarily forest, with areas of granitic outcrops and meadows.

LOCAL HYDROLOGY AND WATER QUALITY

The project is located in the eastern portion of the Bijou Park Watershed, which drains into Lake Tahoe. The project area is in an approximately 25-acre sub-drainage of the watershed. There are minimal storm drain improvements within the existing project area. Existing site conditions include an undersized storm drain collection and conveyance system that is frequently overwhelmed during high-intensity storm events that leads to flooding and erosion. Currently there is an existing 18-inch corrugated metal storm drain pipe that connects a drop inlet on Lucinda Court to a drop inlet in the upper portion of Wildwood Avenue. There is no downstream connecting storm drain pipe from the upper Wildwood Avenue drop inlet. During high flows, water surcharges in the drop inlet and flows down the existing curb and gutter along the upper portion of Wildwood Avenue. Existing peak flows for the Ruby Way storm drain outlet for the 2-year return interval are 2.6 cubic feet per second (cfs) and for 100-year return interval are 25.26 cfs. Existing peak flows for the outlet on the existing channel on Wildwood Avenue for the 2-year return interval are 2.15 cfs and for 100-year return interval are 15.42 cfs.

Water flowing along the east side of the road is conveyed to an existing drop inlet at the intersection of Wildwood Avenue and Overlook Court. This drop inlet has an outlet pipe that discharges to an existing rock-lined channel in the abandoned section of Wildwood Avenue. Flows on the west side of Wildwood Avenue are conveyed to Overlook Court. There is an existing 18-inch corrugated metal pipe (CMP) in Overlook Court that discharges to a rock-lined channel that flows to David Lane. There are two CMP culverts that cross beneath the abandoned section of David Lane. The existing stormwater drainage system discharges from two points in the project area. Stormwater discharge from the northwest side of the project area is conveyed from the low points on Ruby Way via a 24-inch drain pipe. Drainage from this discharge point crosses under Pioneer Trail and reconvenes at Sonora and Tamarack Avenues outside of the project area. A 24-inch drain pipe carries the flows west to Ski Run Boulevard. From Ski Run Boulevard, the flow is conveyed via a 36-inch drain pipe to the Osgood Avenue wetland basins, which then discharge into Ski Run Marina in Lake Tahoe via double box culverts. On the northeast side of the project area, flows entering the City's storm drain system at Stewart Way and Wildwood Avenue are discharged to the existing curb and gutter on Wildwood Avenue on the north side of Pioneer Trail. Flows are conveyed along Wildwood Avenue where they enter the City's storm drain system again at Larch Avenue. The existing storm drain system at this location is frequently overwhelmed which leads to localized flooding along Alder, Forest, Paradise, and Osgood Avenues.

Potential sources of nutrients and pollutants from the project area include urban runoff, sediment, pet waste, fertilizers, road deicers, and traction abrasives. This proposed project is intended to reduce the amount of erosion and runoff carrying pollutants by stabilizing eroding areas and capturing and infiltrating stormwater on-site.

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 objective of the drainage and erosion control project is to capture fine sediment and nutrients so that they do not enter into the storm drain system that eventually drains into Lake Tahoe thereby improving water quality. Implementation of the proposed project would require grading and excavation for the construction of the proposed storm drain improvements and infiltration basins. Although construction activities have the potential to adversely affect surface and groundwater quality, all projects, including the proposed project, are required to comply with stringent TRPA water quality protections identified in Chapter 33 of the TRPA Code (2012) and Lahontan RWQCB Tahoe Construction General Permit (Order No. R6T-2016-0010). Temporary construction BMPs would be required include as described in section 2.5 "Construction Best management Practices."

TRPA, Lahontan RWQCB, and the City of South Lake Tahoe have substantial experience with review, approval, and enforcement of project-specific permit conditions for projects in the Tahoe Basin, and they have been shown to be effective. Because regulatory protections are in place to minimize erosion and transport of sediment and other pollutants and because the intention of the project is to improve water quality, this impact 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?

Less than significant impact. The proposed project would not involve the use of groundwater and through the installation of infiltration facilities would recharge groundwater supplies. For this reason, the potential effects to groundwater supplies and groundwater recharge would be less than significant.

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;

Less than significant impact. The project area is located in an existing residential development. The purpose of the proposed project is to infiltrate stormwater runoff from the roads and other impervious areas to reduce erosion. The proposed project would alter the existing drainage pattern to redirect stormwater flows to infiltration facilities instead of continuing to cause soil erosion as under existing conditions. The proposed project would reduce on-site erosion and on- and off-site siltation. Therefore, the impact is less than significant.

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

Less than significant impact. No new impervious surfaces are proposed as part of the project and therefore the project would not increase the rate or amount of surface runoff. The proposed infiltration basins would be designed to infiltrate the 20 year, 1-inch per hour storm event and would be designed with overflow weirs and a connection to the storm drain system thereby minimizing the potential for on- and offsite flooding. Therefore, this impact is less than significant.

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

Less than significant impact. As discussed under items "c-i" and "c-ii" above, no new impervious surfaces are proposed as part of the project that would increase stormwater runoff or provide additional sources of polluted runoff. The proposed project would be designed to infiltrate all runoff from the 20-year, 1-inch per hour storm. The objective of the proposed project is to reduce erosion and increase infiltration in the project area. Therefore, the proposed drainage system project would not contribute runoff water that would exceed the capacity of a stormwater drainage system and would not provide substantial additional sources of polluted runoff. This impact is less than significant.

iv) Impede or redirect flood flows?

Less than significant impact. As discussed under item "c-i" above, the proposed project would redirect stormwater flows in the project area to reduce erosion and increase infiltration. Flood conditions caused by excessive rain were taken into consideration during the design of the project. The proposed project is not located in a FEMA-mapped flood zone and therefore would not impede or redirect flood flows (EPA 2020). The impact would be less than significant.

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

No impact. A tsunami is a wave or series of waves that may result from a major seismic event that involves the displacement of a large volume of water (such as rupture of a major fault) and may occur in any large body of water. A seiche is a periodic oscillation of an enclosed or restricted water body, typically a lake or reservoir, produced by seismic shaking. The action of a seiche is similar to the sloshing of a bathtub, with waves bouncing back and forth across the water body. Seiche waves can continue for hours following a tsunami inducing earthquake, causing extensive damage. Modeling of potential earthquakes occurring beneath Lake Tahoe indicate that a fault rupturing seismic event of magnitude 7.0 could trigger a tsunami, followed by a seiche with waves of up to 30 feet high along the shoreline of Lake Tahoe (Ichinose et al. 2000). No habitable structures are proposed with the project and is located topographically above the seiche zone at 50.9 feet above the high-water level of Lake Tahoe. Therefore, there is no impact from the risk of release of pollutants due to project inundation.

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

No impact. The proposed project does not include activities that would conflict with a water quality control plan or sustainable groundwater management plan. Additionally, as discussed in item "a," above, the proposed project would not adversely affect surface or groundwater quality and is intended to improve water quality. There would be no impact.

3.10.3 Cumulative Impacts

Cumulative impacts to hydrology and water quality are considered in the context of the Tahoe Basin watershed. The water quality of the tributaries to Lake Tahoe have been degraded by historic activities such as logging, milling, mining, and grazing combined with runoff from urban and recreational developments, resulting in an existing cumulative adverse condition. Urban development in many areas around Lake Tahoe resulted in the loss of wetland and marsh habitat and the realignment and straightening of many river or creek channels. This led to an increase in sediment and other pollutants carried into Lake Tahoe. The Lake Tahoe Total Maximum Daily Load was developed to address sediment levels in partnership with local jurisdictions. Additionally, numerous publicly and privately-funded projects have been implemented to restore disturbed areas of the watershed and reduce this adverse condition.

The proposed project would reduce the amount of sediment and pollutants that reach Lake Tahoe. The proposed project and the related projects listed in Table 3.21-1 would also be required to comply with the erosion control and water quality protection conditions of TRPA and the Lahontan RWQCB. This would include temporary water quality protection BMPs during construction. Therefore, the proposed project and the related projects listed in Table 3.21-1 would not create a considerable contribution to a significant cumulative impact related to hydrology or water quality.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL CHECKLIST QUESTIONS	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 site is located within a residential neighborhood. The existing land use on the project site is primarily open space. However, an existing utility easement located on a private residential parcel would be used for improvements associated with the proposed project.

LAKE TAHOE REGIONAL PLAN

TRPA's land use regulations are guided by the Lake Tahoe Regional Plan and the Code of Ordinances contained therein. The Regional Plan is intended to establish a balance, or equilibrium, between the natural environment and the built environment; and attain and maintain TRPA's environmental threshold carrying capacities. The goals and policies of the Regional Plan establish an overall framework for development and environmental conservation in the Lake Tahoe region. The goals and policies present the overall approach to meeting TRPA's environmental threshold carrying capacities and establish guiding policy for each resource element.

The Conservation Element of the Tahoe Regional Plan includes Policies WQ-1.5 and WQ-1.6, which are applicable to the proposed project. These policies promote implementation of programs that support stormwater load reduction and water quality improvement in the region (TRPA 2012).

Land Use Classification System

Land in the Lake Tahoe region is assigned to one of eight classifications: Wilderness, Backcountry, Conservation, Recreation, Resort Recreation, Residential, Mixed-Use, and Tourist. The classifications summarize major land uses that exist in the region and are further supplemented by the plan area statements (PASs), community plans, master plans, and area plans. Land uses near the project area include Backcountry, Conservation, Mixed-Use, Recreation, Resort Recreation, Residential, and Tourist.

PLAN AREA STATEMENTS

PASs provide a detailed guide for planning within discrete areas of the region. Each PAS is assigned a single land use classification and one of three management strategies: development with mitigation, redirection of development, or maximum regulation. Additionally, PASs provide planning considerations, special policies, maximum densities for residential and tourist accommodation uses, community noise equivalent levels, allowable and special uses, and the amount of additional recreation capacity that is permissible. The project area is located in PAS 085, Lakeview Heights, and PAS 092, Pioneer/Ski Run (TRPA 1987a, 1987b). The land use classification for the project area is Residential.

CITY OF SOUTH LAKE TAHOE GENERAL PLAN

The City of South Lake Tahoe 2030 General Plan (CSLT 2011), Land Use and Community Design Element includes the following goal and policy relevant to the proposed project:

GOAL NCR-2: To protect and enhance the clarity of Lake Tahoe and water quality in the area's rivers, creeks, and groundwater.

- ▶ **Policy NCR-2.1:** Stormwater Runoff Retention. The City shall require new projects and, working with TRPA, encourage existing developed properties to retain runoff onsite wherever physically possible and economically efficient or, if not possible or efficient, to contribute to the construction and long-term maintenance of off-site water quality measures.
- ▶ **Policy NCR-2.3:** Stormwater Quality Management Improvement. The City shall improve stormwater quality management by including, along with other proven options, the use of swales and natural treatment systems and integration of runoff into functional design elements and public art. The City shall also incorporate the latest technologies for water quality treatment facilities into restoration efforts.

3.11.2 Discussion

a) Physically divide an established community?

Less than significant impact. The proposed project is located in an area that consists of single-family residential homes, limited multi-family development, publicly owned parcels, and roadways. However, the proposed project would be constructed on publicly owned parcels or on a small part of an existing easement. Although project construction would temporarily limit recreational access through the project area by residents in the neighborhood (see Section 3.16, "Recreation," below for further discussion), the proposed project would not result in construction of features that would result in the permanent physical division of the surrounding neighborhood or result in a physical barrier that would limit access through the project area. This impact would be less than significant.

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 proposed project consists of stormwater improvements, which would be consistent with permissible uses identified in PASs 085 and 092 as runoff control, that are defined in Table 21.4-A of the TRPA Code as structural or nonstructural practices designed to provide reasonable assurance that the runoff water quality standards to the surface or groundwaters will be achieved. Additionally, the proposed project is consistent with Regional Plan and City of South Lake Tahoe policies that support water quality improvements and stormwater collection systems. The proposed project would not cause an environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There would be no impact.

3.11.3 Cumulative Impacts

Impacts involving land use plans or policies and zoning generally would not combine to result in cumulative impacts. The significance determination for these issues pertains to whether a project would conflict with any applicable land use plan or policy adopted for the purpose of reducing or avoiding environmental impacts. Such a conflict is site-specific and addressed on a project-by-project basis. The proposed project is an allowable use and would not result in significant land use planning impacts. Further, related projects in the area (Table 3.21-1) would be required to comply with TRPA and local jurisdictional zoning, land use, and protective policies as conditions of approval. Because no land use impacts would occur on a project-specific basis, the project would not contribute to any potential cumulative land use impacts. Therefore, the project would not make a considerable contribution to a significant cumulative impact.

3.12 MINERAL RESOURCES

ENVIRONMENTAL CHECKLIST QUESTIONS	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 Environmental Setting

The project site does not contain any known mineral or aggregate resources of local or statewide significance (Busch 2001). The project site is underlain by Pleistocene to Holocene glacial till and moraines with no known current or future economic value. No economically viable deposits of clean sand or gravel exist in the project site that would be useful to extract for riprap, aggregate, or other industrial uses (Busch 2001).

3.12.2 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 are located within the project site. There would be 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 discussion for item "a," above. The project would not result in the loss of availability of a locally important mineral resource recovery site.

3.12.3 Cumulative Impacts

The project would result in no impacts on mineral resources. Therefore, the project would not combine with other cumulative projects identified in Table 3.21-1 to result in a cumulative loss of mineral resources. Therefore, there would be no cumulative impact.

3.13 NOISE

ENVIRONMENTAL CHECKLIST QUESTIONS	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 in other applicable local, state, or federal standards?	☐	☐	☒	☐
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 2 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 ambient noise environment at the project site is typical of a residential neighborhood, where the primary source of noise is vehicle and truck traffic on nearby roadways, and human activity and natural sounds including wind and wildlife are audible but to a lesser extent.

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 in other applicable local, state, or federal standards?**

Less than significant impact. The proposed project would result in limited operational activities that include inspection and maintenance of the proposed stormwater conveyance and infiltration systems. The project would not introduce any new stationary noise sources within the project area. Vehicle trips associated with inspection activities would be limited to a minimum of two trips annually, and maintenance activities would be temporary, occur during less-noise sensitive daytime hours, and would only occur approximately once every 5 years. Inspection and maintenance activities would generate minimal new vehicle trips, requiring only one vehicle per inspection. These operational activities are temporary and intermittent in nature and would only occur for a limited period of time. Therefore, the project would result in a minimal number of new vehicle trips that would occur on a temporary and intermittent basis in the project area. Additionally, inspection and maintenance trips and activities associated with the project would generally use the same type of equipment currently used for similar maintenance activities in the project vicinity, and would occur less frequently than the existing number of trips required to maintain the existing undersized storm drain collection and conveyance system that is frequently overwhelmed during high-intensity storm events. The project would not result in any new operational stationary noise sources or result in a substantial increase in operational traffic noise levels. Thus, the project would not result in a generation of a substantial permanent increase in ambient noise levels in the vicinity of the project.

Construction activities associated with the proposed project would result in short-term noise. Construction activities would include excavation, site preparation, rock placement, aggregate placement, and revegetation. As described in Chapter 2, "Project Description," construction is anticipated to last one grading season and would occur between May 1 and October 15.

Construction noise levels would fluctuate depending on the type, number, and duration of use of construction equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment at nearby receptors. Table 3.13-1 lists the noise levels generated by the types of equipment that would likely be used during project construction.

Table 3.13-1 Noise Levels Generated by Construction Equipment

Equipment Type	Typical Noise Level (dBA) at 50 feet
Backhoe	80
Dump Truck	84
Front End Loader	80

Source: FTA 2006:3

Noise-sensitive receptors near the project site would experience temporary elevated noise levels from construction activities. The closest off-site sensitive receptors to construction are the residences adjacent to the project site. The nearest residents are located approximately 25 feet from the closest point where project construction activities would occur.

Section 68.9 of the TRPA Code exempts construction activities from TRPA noise standards if they occur between 8:00 a.m. and 6:30 p.m. As described in Chapter 2, "Project Description," proposed construction activities would occur consistent with TRPA Code Section 68.9. Therefore, construction activities would be limited to between 8:00 a.m. and 6:30 p.m., where construction activities are exempt from TRPA noise standards. Thus, the project would not result in a generation of a substantial temporary increase in ambient noise levels in the vicinity of the project.

For the reasons describe above, this impact would be less than significant.

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

Less than significant impact. The proposed project would not result in the long-term operation of a source of ground vibration. In addition, the project would not develop new vibration-sensitive receptors. Construction of the proposed project would not include use of the types of equipment or activities that have the potential to generate excessive groundborne vibration or noise levels, such as pile driving, drilling, boring, or rock blasting. 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 2 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. There are no private airstrips in the vicinity of the project site. The South Lake Tahoe Airport is the nearest airport and is located approximately 3.3 miles southwest of the project site. The project site is located outside of the noise contours for the Lake Tahoe Airport (Lake Tahoe Airport Land Use Commission 2019:4-4). The project would not expose people working at the project site or within the project vicinity to excessive noise levels from aircraft. There would be no impact.

3.13.3 Cumulative Impacts

The project would result in no substantial permanent changes to noise levels. The project would result in some less-than-significant, and temporary noise during construction. The noise generated during construction and operation of the project would not combine with other cumulative projects identified in Table 3.21-1 in such a way that would result in significant noise exposure to the same individual noise sensitive receptors because other noise-generating projects would not be occurring concurrently within the project vicinity. Thus, the project would not make a considerable contribution to a cumulatively significant impact.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL CHECKLIST QUESTIONS	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

According to the U.S. Census Bureau, in 2018 the estimated population for the City of South Lake Tahoe was approximately 21,800 people, with approximately 17,200 total housing units (U.S. Census Bureau 2018a, 2018b). Many of the residences are used as second homes or vacation rentals. In 2018, the annual estimated unemployment rate was 4.6 percent (U.S. Census Bureau 2018c).

Land ownership in and around the project area is mixed with private parcels interspersed with parcels owned and managed by the Conservancy, U.S. Forest Service, and City of South Lake Tahoe. The project is proposed primarily within the City's existing right-of-way or on Conservancy-owned parcels. The primary land use in this area is single-family residential homes, with large areas of undeveloped land. The residential homes are concentrated along Lucinda Court, the upper portion of Wildwood Avenue, Overlook Court, and Ruby Way.

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. This project would not include construction of new housing or commercial businesses. Therefore, no direct population growth would result from implementation of the proposed project. Construction of the project would occur over one grading season (May 1 through October 15), and would likely last around 6 or 7 weeks. The proposed project would provide local, short-term employment for the construction and installation of the of the new stormwater management system; due to the small scale of the project it would not result in a substantial increase in employment. The maintenance of this project would occur as a part of standard routine maintenance of other similar facilities every 5 years and would not result in the need for additional employees. For these reasons, the proposed project would have no impact on population growth.

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

No impact. The project proposes the installation of infiltrations systems in the form of vegetated and rock-lined stormwater infiltration basins, subsurface infiltration systems, and subsurface storm drain pipes. No residential units

would be altered or relocated as a part of this project. Therefore, no people or existing residences would be displaced, and there would be no impact.

3.14.3 Cumulative Impacts

The cumulative projects listed in Table 3.21-1 would generate temporary, short-term employment and would not be considered to result in a substantial increase in employment. Employment needs for these projects would be met by existing contractors that work in the South Lake Tahoe area. As described above, the proposed project would not induce long-term population growth. The project would not combine with other cumulative projects identified in Table 3.21-1 to result in a cumulative permanent increase in employment or population growth. The project would result in no impacts on displacement of housing or people. Therefore, the project would not combine with other cumulative projects identified in Table 3.21-1 to result in a cumulative displacement of housing or people. As described above, there would be no cumulative impact.

3.15 PUBLIC SERVICES

ENVIRONMENTAL CHECKLIST QUESTIONS	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, 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 Environmental Setting

Fire Protection

In the Tahoe Basin, federal, state, and local fire districts participate in mutual aid agreements to provide and/or receive support and services during unplanned emergency events with other cooperating agencies. The project site is served by South Lake Tahoe Fire Rescue. Fire Station One, located at 1252 Ski Run Boulevard, is located approximately 0.3 miles east of the project area.

Police Protection

The South Lake Tahoe Police Department is the primary jurisdictional law enforcement agency that provides law enforcement service(s) to the lands in and around the project site.

Schools

The project site is located within the Lake Tahoe Unified School District (LTUSD). Schools within LTUSD include Tahoe Valley Elementary School, Sierra House Elementary School, Lake Tahoe Environmental Science Magnet School, Bijou Community School, South Tahoe Middle School, and South Tahoe High School.

Parks

Van Sickle Bi-State Park is located less than 1 mile from the project area. A multi-use trail (the South Tahoe Greenway Shared-Use Trail) is proposed through the project area and would connect to Van Sickle Bi-State Park. Additionally, areas of David Lane and Ruby Way are used by residents as walking paths. Additional descriptions of nearby recreation facilities is included in Section 3.16, "Recreation."

3.15.2 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, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

No impact. The proposed drainage and erosion control project would not result in the construction of permanent facilities that would generate demand for public services such as fire protection. Construction would take place over one construction season (May to October) and no permanent increase in demand for fire protection or emergency services would occur. There would be no impact.

Police protection?

No impact. The project proposes the installation of stormwater infiltration systems and would not result in the construction of permanent facilities that would generate demand for public services such as police protection. There would be no impact.

Schools?

No impact. The proposed project would not include the development of new housing nor increase the number of long-term or permanent jobs in the area. Therefore, the proposed project would not increase the demand for schools, and thus the project would have no impact on schools.

Parks?

No impact. Because the proposed project would not increase area population as described above, it would not result in an increased demand for park facilities that would result in the need for new or physically altered park facilities. There would be no impact.

Other public facilities?

No impact. Implementation of the proposed project does not include development of new residences nor would it increase employment demand. Therefore, the proposed project would not increase area population that could increase the demand for other public facilities, such as libraries and community centers. Therefore, implementation of the proposed project would have no impact on other public facilities.

3.15.3 Cumulative Impacts

Because the proposed project would result in no impact on public services, it would neither contribute to a cumulative impact nor result in a cumulatively considerable contribution to such impacts on public services.

3.16 RECREATION

ENVIRONMENTAL CHECKLIST QUESTIONS	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

The proposed project is located in an area that consists of single-family residential homes, limited multi-family development, publicly owned parcels, and roadways. Portions of the project area include abandoned roadways that are not open to vehicle traffic that are used as walking paths for neighborhood residents. The project area includes a small portion of the Pioneer Trail bicycle lane. The project area is in close proximity to a number of recreation resources, including Heavenly Mountain Resort and trails for hiking and mountain biking. Nearby trails include Powerline Trail approximately 1 mile southeast of the project area, which provides access to a range of other trails (Tahoe Area Mountain Biking Association 2020). Additionally, David Lane is used as a trailhead for access to Van Sickle Bi-State Park, which is approximately 1 mile northeast of the project area.

As discussed in Chapter 2, "Project Description," the proposed South Tahoe Greenway Shared-Use Trail, planned by the Conservancy, bisects the project area. The South Tahoe Greenway Shared-Use Trail will provide connection between the eastern terminus of the trail (Aloha Road/Herbert Avenue) to Van Sickle Bi-State Park.

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 does not include development of new residences or permanent increase in employment and therefore, would not affect the population in the project vicinity such that it would increase the demand for public facilities. The project would not result in a permanent increase in demand for park facilities that would result in the need for new or physically altered park facilities.

The proposed project would involve construction activities in areas that may be used as informal recreation resources (i.e., walking trails) for residents of the neighborhood as well as access to other trails nearby. Additionally, the project includes a small portion of the Pioneer Trail bicycle lane. Implementation of the project could temporarily reroute trails during construction of the project components that would be completed in one grading season, including the maintenance access road along the storm drain alignment between David Lane and Wildwood Avenue, the basins proposed near the abandoned section of Ruby Way. As a result, there could be short-term, minor increases in use of nearby trails. There is no evidence to suggest a short-term increase in use of trails near the project area would result

in substantial physical deterioration or acceleration of physical deterioration of existing nearby trails or other recreational facilities. After project construction is completed, the project area would continue to be able to be used for walking or biking.

Implementation of the proposed project would not preclude construction of the proposed South Tahoe Greenway Shared-Use Trail through the project area. The design for the South Tahoe Greenway Shared-Use Trail is currently at a conceptual level and at the time project-level design is finalized, the trail alignment would consider the presence of features such as the drainage basins. The proposed project is located on Conservancy-owned parcels that provide sufficient space for location of both the drainage basins and the South Tahoe Greenway Shared-Use Trail.

For the reasons described herein, the proposed project would not 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. This impact would be less than significant.

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

No impact. The project does not include the construction of recreational facilities. The project also does not include development of new residences or increase permanent employment and therefore, would not affect the population in the project vicinity such that it would increase the demand for public facilities. The project would not result in a permanent increase in demand for park facilities that would result in the need for new or physically altered park facilities. There would be no impact on parks or other recreational facilities.

3.16.3 Cumulative Impacts

Implementation of some cumulative projects listed in Table 3.21-1 could result in similar temporary closures of recreation resources, like those of the proposed project. In particular, the Forest Health and Vegetation Management Project that would occur in the Ruby Way area would temporarily limit recreation access to the forest in and near the project area prior to implementation of the proposed project. Construction of the South Tahoe Greenway Shared-Use Trail through the project area would also temporarily limit recreation access to the forest in the project area; however, when it is completed it would serve as a new recreation resource.

Recreation demand in the South Lake Tahoe area is met with a wide variety and amount of recreational facilities and operations. Temporary closures associated with the proposed project and cumulative projects identified in Table 3.21-1 would result in temporary, short-term closures of publicly owned, forested land that provides hiking and biking opportunities on a continuous network of trails. Public access to these trails would be re-established after completion of these projects. Additionally, the South Tahoe Greenway Shared-Use Trail and other cumulative projects would enhance recreation opportunities. The temporary, short-term restrictions on public access to the project area would displace recreation users to other nearby trails; however, these projects are short-term and the increased demand on nearby trails or other recreation facilities would not be concentrated such that a substantial physical deterioration of these resources or subsequent adverse effects on the environment would occur. For these reasons, the proposed project when combined with other cumulative projects would result in a less-than-significant cumulative impact on recreation resources.

3.17 TRANSPORTATION

ENVIRONMENTAL CHECKLIST QUESTIONS	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

CIRCULATION NETWORK

The circulation network within project area consists of the following two-lane, bi-directional, and unstriped residential roadways:

- ▶ Overlook Court
- ▶ Lucinda Court
- ▶ Terrace Drive
- ▶ David Lane
- ▶ Wildwood Avenue
- ▶ Pioneer Trail

There are no existing transit, bicycle, or pedestrian facilities located in the immediate vicinity of the project site, except for a bicycle lane on Pioneer Trail.

3.17.2 Discussion

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

Less than significant impact. There are no existing transit facilities near the project site, except for a bicycle lane on Pioneer Trail. Implementation of the project would not generate new demand for transit trips; and thus, would not result in demands on transit facilities greater than available capacity. Therefore, project-related activities would not alter or impact any existing or planned transit routes or facilities, or conflict with adopted policies or plans related to public transit.

During construction, the bicycle lane along Pioneer Trail would be temporarily closed for a short period (approximately 3 days) during one-way traffic control along Pioneer Trail. There are no existing pedestrian facilities (e.g., sidewalks) in the vicinity of the project site. Therefore, the project-related construction and/or operation would not alter or impact any pedestrian facilities and would only temporarily affect the bicycle lane along Pioneer Trail. Additionally, the project would not generate substantial bicycle or pedestrian demand. However, as described in Chapter 2, "Project Description," a trail (the South Tahoe Greenway Shared-Use Trail) bisecting the project area and connecting the eastern terminus of the trail at Aloha Road/Herbert Avenue to Van Sickle Bi-State Park is planned by the Conservancy. The public parcels on which the trail is proposed are also identified as potential locations for water quality treatment and infiltration features. However, the alignment of the trail has yet to be determined. Through ongoing coordination between the City of South Lake Tahoe and the Conservancy it has been determined that the trail can and will be designed in such a way that it will avoid the water quality treatment and infiltration features of the proposed project. Therefore, the project would not significantly impact any existing or planned bicycle or pedestrian facilities, or conflict with adopted policies or plans related to bicycle and pedestrian facilities. This impact is less than significant.

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

Less than significant impact. Senate Bill (SB) 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation (and Section 21099[b][2] of CEQA), upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

State CEQA Guidelines Section 15064.3 was added on December 28, 2018, to address the determination of significance for transportation impacts, which requires that the analysis is based on vehicle miles traveled (VMT) instead of congestion (such as LOS). The change in the focus of transportation analysis is intended to change the focus from congestion to, among other things, reduction in GHG emissions, encouraging mixed-use development, and other factors. State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project.

State CEQA Guidelines Section 15064.3(b)(3), "Qualitative Analysis," states that if existing models or methods are not available to estimate VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Section 15064.3(b)(4), "Methodology," explains that local jurisdictions, such as the City of South Lake Tahoe, have discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards such as State CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

OPR released the Technical Advisory on Evaluating Transportation Impacts (OPR 2018) to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures as they relate to the implementation of SB 743. The Technical Advisory notes that projects generating or attracting fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018). Therefore, using OPR guidance, if the project would generate fewer than 110 trips per day it would result in a less-than-significant VMT impact.

Operation of the project would include inspection and maintenance of the proposed stormwater conveyance and infiltration systems. Vehicle trips associated with inspection activities would be limited to a minimum of two trips annually, and maintenance activities would be temporary and would only occur approximately once every 5 years. Inspection and maintenance activities would generate minimal new vehicle trips. These activities are temporary and intermittent in nature and would only generate vehicle trips for a limited period of time; and thus, are generally consistent with construction activities in terms of their temporary and intermittent nature. Additionally, inspection and maintenance activities would occur subsequent to the completion of construction; and thus, these two trip-generating phases of the project (i.e., operational and construction) would not overlap.

The project would generate the greatest number of new vehicle trips during construction activities. Temporary construction-related activities for the proposed project would include excavation, site preparation, rock placement, aggregate placement, and revegetation. Project construction activities would not result in long-term increases in vehicular trips because the construction would be temporary in nature. As described in Chapter 2, "Project Description," construction is anticipated to last one grading season and would occur between May 1 and October 15.

Trips associated with project-generated construction activities could include heavy-vehicle trips to haul equipment and materials, and trips associated with the workers commuting to and from the project site. The number of haul trips and workers trips would vary based on the phase and duration of the construction activity. The exact number of truck trips, employees, and a variety of other construction-related activities is unknown at this time; however, due to the scale and intensity of the project it is anticipated that significantly fewer than 110 trips per day would be generated during construction. Therefore, using OPR guidance, because the project would generate fewer than 110 trips per day, this impact related to VMT would not conflict or be inconsistent with State CEQA Guidelines Section 15064.3(b). This impact is less than significant.

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

Less than significant impact. The project would not require the construction, re-design, or alteration of any public roadways. However, the project does include the construction of a maintenance access road. Construction activities would also include slope stabilization on the upper portion of Wildwood Avenue, on the corner of Overlook Trail and Wildwood Avenue, and on David Lane. Additionally, construction activities would occur within the public roadway right-of-way below David Lane and Wildwood Avenue.

The proposed maintenance access road would be constructed in accordance with City of South Lake Tahoe design standards, including but not limited to the City of South Lake Tahoe Public Improvement Engineering Standards and City of South Lake Tahoe Municipal Code. Additionally, the City of South Lake Tahoe Planning Division implements and regulates the TRPA Code, which sets forth additional driveway and roadway design standards. Therefore, the proposed maintenance access road would be designed and constructed in accordance with applicable City and TRPA design and safety standards. Thus, the new maintenance roads would not increase hazards because of a design feature or incompatible uses.

As described above, construction would occur adjacent to and within the public roadway right-of-way; and thus, would likely require temporary lane closures which could result in unexpected slowing of vehicular traffic if not properly planned and managed. However, as described in Chapter 2, "Project Description," prior to the commencement of construction, the project construction contractor would coordinate with the City of South Lake Tahoe and prepare and implement a temporary TTC. The TTC shall be subject to review by the City of South Lake Tahoe and, at a minimum, shall comply with Part 6, Temporary Traffic Control, of the California MUTCD, and standard construction practices. Therefore, the implementation of a TTC would reduce the temporary impact to the degree feasible. Additionally, construction traffic impacts would be localized and temporary. For these reasons, the project would not substantially increase hazards due to a design feature or incompatible use. This impact is less than significant.

d) Result in inadequate emergency access?

Less than significant impact. As described under item "c," above, the project would not require the construction, re-design, or alteration of any public roadways. Construction would include temporary disruptions to the transportation network near the project site which could include lane closures. However, as described in Chapter 2, "Project Description," the project construction contractor shall prepare and implement a TTC, which would require that access for emergency vehicles in and around the project area be maintained at all times. Therefore, the project would result in adequate emergency access. This impact is less than significant.

3.17.3 Cumulative Impacts

As discussed under items "c" and "d" above, the project would result in a less-than-significant impact related to hazards and emergency access. Therefore, the project would not combine with other cumulative projects listed in Table 3.21-1 to result in a cumulative hazard on roadways or inadequate emergency access. Additionally, the project would result in less-than-significant impacts to public transit, bicycle facilities, and pedestrian facilities. Therefore, the project would not combine with the projects listed in Table 3.21-1 such that a cumulative impact on transportation facilities would occur. Thus, the project would not make a considerable contribution to a significant cumulative impact related to transportation.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL CHECKLIST QUESTIONS	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)?	☒ Yes		☐ No	
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

Tribal Cultural Resources are either of the following:

- ▶ Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the California Register of Historical Resources or are included in a local register of historical resources.
- ▶ A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant if it
 - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
 - Is associated with the lives of persons important in our past.
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
 - Has yielded, or may be likely to yield, information important in prehistory or history.

The contextual background included under the header "Ethnographic Overview" in Section 3.5, "Cultural Resources," summarizes information related to Native American occupation in the Tahoe Basin. Assembly Bill (AB) 52, signed by Governor Edmund G. Brown, Jr. in September 2014, established a new class of resources under CEQA: "tribal cultural resources" (TCRs). AB 52, as provided in Public Resources Code Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin

consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a notice of preparation (NOP) of an environmental impact report (EIR), or notice of intent to adopt a negative declaration or mitigated negative declaration. AB 52 applies to those projects for which a lead agency had issued a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration on or after July 1, 2015. Therefore, the requirements of AB 52 apply to the proposed project. Accordingly, the City initiated consultation with tribes that have requested consultation on March 26, 2020 with a letter and project map. Correspondence in compliance with AB 52 is summarized in Table 3.18-1 below. In addition, NAHC was contacted to obtain documentation of a search of the Sacred Lands Files in proximity to the project site. The reply from the NAHC, dated September 24, 2019, stated that the search returned negative results for Native American resources in the vicinity of the project site. NAHC provided contact information for the Washoe Tribe of Nevada and California, which is affiliated with the region, and recommended that they be contacted for more information on the potential for tribal cultural resources within the project Area. A project information letter and map were sent to Mr. Darrel Cruz of the Washoe Cultural Resources Department on September 25, 2019. Mr. Cruz responded on October 10, 2019 requesting additional information about the project. An on-site meeting took place on January 8, 2020. Mr. Cruz expressed that he would like to have a representative of the Tribe monitor any ground-disturbing work completed within the boundaries of a multicomponent archaeological site that was identified near the project. He also recommended that a buffer of 50 feet be established around a prehistoric component of the site and that no heavy equipment be used within that 50-foot area during project-related work. No ground disturbance would occur within this site as it is located approximately 350 feet outside of the area where improvements are proposed. As stated in Chapter 2, "Project Description," a project limit fence would be installed as a part of the project which would prevent any equipment from leaving the project area thereby protecting tribal cultural resources (Spillane 2019).

Table 3.18-1 Summary of Native American Outreach

Native American Group Contact Information	Date of Initial Letter	Date of Reply
Darrel Cruz, Director, Tribal Historic Preservation Office/Cultural Resources Office, Washoe Tribe of Nevada and California, 919 U.S. Highway 50 South Gardnerville, NV 89410	September 25, 2019	October 10, 2019
Washoe Tribe of Nevada and California Attention: The Honorable Neil Mortimer, Chairman 919 U. S. Highway 395 South Gardnerville, NV 89410	March 26, 2020	No reply
United Auburn Indian Community Attention: Gene Whitehouse, Chairman 10720 Indian Hill Road Auburn, CA 95603	March 26, 2020	No reply
The Cultural Committee of the Lone Band of Miwok Indians Attention: Randy Yonemura Cultural Committee Chair PO Box 699 Plymouth, CA 95699	March 26, 2020	No reply

Source: Compiled by Ascent Environmental in 2020

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)?

Less than significant impact. In compliance with AB 52, the City of South Lake Tahoe sent letters to California Native American Tribes as shown in Table 3.18-1. Consultation with the Tribes did not identify any tribal concerns or TCRs in the project site. Additionally, NAHC also conducted a Sacred Lands File search of the project area on September 24, 2019 to identify any tribal resources or sacred sites within or near the project area and returned negative results. During a cultural resources field survey conducted in support of the project, a multicomponent potentially eligible cultural resource was identified by archaeologist, Tim Spillane outside of the area of proposed improvements. The historic component of the site consists of a mixed scatter of historical and modern refuse associated with numerous short-term transient encampments. The prehistoric component consists of a bedrock mortar with five non-parabolic, flat-bottomed cavities. The prehistoric component of the site may have the potential to yield information important in the prehistory of the South Lake Tahoe area and is recommended as potentially eligible for California Register of Historical Resources listing. The resource is located over 350 feet from the proposed project improvements and a construction limit fence would prevent any equipment from travelling outside of the project area. Daily inspections of the project's BMPs, including the integrity of the project limit fencing, are required by the Tahoe Construction General Permit (Order No. R6T-2016-0010). For this reason, no equipment would be able to travel outside of the project limits and would not affect the potentially eligible resource. Therefore, the project would have a less-than-significant impact on TCRs as defined above and in PRC Section 21074.

- 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. See discussion under item "a." As stated above, the potentially eligible resource is located over 350 feet away from the limits of the project improvements. Equipment would be prevented from leaving the project limits by a construction limit fence which would be inspected daily. Therefore, no resources significant to a California Native American tribe would be affected. The impact is less than significant.

3.18.3 Cumulative Impacts

Impacts to TCRs from the proposed project would be a less than significant as discussed under items "a" and "b," above, therefore the project would not contribute to a significant cumulative impact on TCRs.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL CHECKLIST QUESTIONS	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 sufficient 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 adequate 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) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

Utility providers that serve the project area include the South Tahoe Public Utility District for water and wastewater services, Liberty Utilities for electrical service, and Southwest Gas Corporation for natural gas service. South Tahoe Refuse (STR) provides waste removal services for the South Lake Tahoe area. This waste is collected and transport to the Materials Recovery Facility (MRF) located at STR's transfer station in South Lake Tahoe, where it is sorted in an effort to meet California's mandatory solid-waste diversion requirements. The MRF initiates or improves separation of aluminum cans, glass, plastics, cardboard, different grades of paper, tin, metals, appliances, milled wood, green waste, stumps, construction debris, and tires. Waste collected by STR is delivered to Lockwood Regional Landfill in Storey County, Nevada. Lockwood Regional Landfill presently has a capacity of 302.5 million cubic yards over an area of 856.6 acres (NDEP 2020).

Existing stormwater drainage facilities in the project area include an undersized storm drain collection and conveyance system that is frequently overwhelmed during high-intensity storm events that leads to flooding and erosion. Additional details of the existing stormwater drainage system in the project area are discussed in Chapter 2, "Project Description."

3.19.2 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?**

Less than significant impact. The Conservancy parcels on the abandoned part of Ruby Way where the infiltration basins are located contain water and sewer facilities. The existing sewer facilities have been abandoned and the manholes have been filled. The City would work with the Conservancy to obtain an agreement regarding abandonment of the water facility. Construction of the project would not require relocation or reconstruction of any utility infrastructure. This impact would be less than significant.

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

No impact. The proposed project includes construction of stormwater drainage infrastructure and would not result in any increase in demand for water supplies. No impact would occur.

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

No impact. The proposed project would not generate any new sources of wastewater and would not otherwise cause South Tahoe Public Utility District's wastewater treatment capacity to be exceeded. No improvements are proposed that would require wastewater treatment; therefore, no impact would occur.

- 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?**

Less than significant impact. The proposed project would result in the excavation of soil material that would be used on-site to fill an existing ditch in the unimproved area of Wildwood Avenue and on slopes and berms that would be constructed in the infiltration basins. The 23 trees that are proposed for removal would also be used on-site for erosion control purposes but it is possible that some branches and stumps would have to be off-hauled. Although grading and excavation for the proposed project are expected to be balanced onsite as much as possible, there could be a one-time generation of solid waste associated with removal of woody debris from tree removal from the project area. This solid waste could be disposed of at the MRF or Lockwood Regional Landfill, which has approximately 302.5 million cubic yards of available capacity (NDEP 2020). Additionally, construction activities would adhere to Section 5.408 of the CALGreen Code. In the unlikely event that earthen material that is not able to be reused onsite must be off hauled, a Construction Waste Management Plan would be prepared. The plan would demonstrate how the project would recycle and/or salvage for reuse a minimum of 65 percent of construction debris generated during project construction. Because adequate landfill capacity is available to serve the solid waste generated by operations and the project would comply with applicable federal, state, and local regulations related to solid waste, this impact would be less than significant.

- e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less than significant impact. See discussion under item "d" above.

3.19.3 Cumulative Impacts

Construction of the project would not require relocation or reconstruction of any utility infrastructure. Additionally, the project would result in no impacts on water supply, wastewater treatment requirements, or the need for new or expanded water or wastewater treatment facilities. Therefore, the project would not combine with other cumulative projects identified in Table 3.21-1 to result in relocation or reconstruction of any utility infrastructure or result in an increase in the need for new or expanded water or wastewater treatment facilities, which could cause significant adverse environmental impacts.

The proposed project and the cumulative projects listed in Table 3.21-1 would result in the one-time generation of solid waste during construction. Lockwood Regional Landfill, which has approximately 302 million cubic yards of available capacity, would have sufficient capacity to accept cumulative generation of solid waste from construction of the proposed project and projects listed in Table 3.21-1. The cumulative impact related to solid waste would be less than significant.

3.20 WILDFIRE

ENVIRONMENTAL CHECKLIST QUESTIONS	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:	☒ Yes		☐ No	
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

See the "Wildland Fire Hazards" section under Section 3.9.1, above for a discussion of the existing wildland fire hazards in the project area. The project area is located within a Very High FHSZ Local Responsibility Area (CAL FIRE 2008).

3.20.2 Discussion

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

Less than significant impact. See item "f" under Section 3.9.2, "Discussion," in Section 3.9, "Hazards and Hazardous Materials."

- 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. Project activities would use construction equipment and vehicles that may release a spark, which could result in wildfire ignition. The proposed project does not consist of any habitable structures but would construct stormwater improvements and remove 23 trees that could burn in the case of fire. Additionally, the separate Forest Health and Vegetation Management Project in Ruby Way Area project listed in Table 3.21-1, would

remove trees to improve forest health adjacent to the Ruby Way neighborhood and is planned for implementation in 2020. As a result of the removal of vegetation and trees the chance of igniting a wildfire would be reduced. Therefore, the exacerbation of wildfire risk from implementation of the proposed project that would expose receptors to pollutant concentrations would be less than significant.

- 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. See item "b", above, which describes that the project would involve the removal of trees that could reduce vegetation that could burn. The proposed project would involve installation of stormwater drainage facilities to collect runoff and a maintenance road. The project would not include construction of facilities, such as buildings, that could exacerbate fire risk or result in temporary or ongoing impacts to the environment. This impact would be less than significant.

- 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 significantly exacerbate wildfire risk, as described in item "b," above. Additionally, the project involves construction of infrastructure that would improve runoff collection and stabilization of steep slopes, which would reduce potential risks such as downslope or downstream flooding or landslides. This impact would be less than significant.

3.20.3 Cumulative Impacts

The geographic area for cumulative impacts related to wildland fire hazards encompasses the Lake Tahoe Basin. The proposed project is located within a very high fire hazard area, as discussed in Section 3.9, "Hazards and Hazardous Materials," and Section 3.20.1, "Environmental Setting." Past wildfires in the region have resulted in significant losses of property and substantial damage to habitat and environmental resources. Historic wildfire suppression and other forest land management practices have allowed fuels to accumulate in many areas, contributing to the severity of wildfires when they do occur. Additionally, past development in the forested landscape has increased the risk to life and property when fires do occur and increased the potential for ignition of wildland fires through increased human presence and activity. Other cumulative projects include restoration, stormwater improvement, and fuels treatment that are intended to improve habitat health, forest health, and water quality. These cumulative projects could result in a temporary increase in wildland fire hazard as a result of the use of vehicles and mechanical equipment during construction or project activities. However, implementation of construction activities typically includes implementation of precautions to limit spark generation and spark arresters on equipment. Because the project would include some tree removal and the separate Forest Health and Vegetation Management Project in Ruby Way Area would remove trees to improve forest health in the Ruby Way neighborhood, both these projects would reduce the long-term risk of wildland fire by removing sources of fuel for wildland fires. Therefore, the project would not result in a considerable contribution to a temporary or permanent cumulative impact on wildland fire hazards. The project would not make a considerable contribution to a significant cumulative impact.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL CHECKLIST QUESTIONS	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 Environmental Setting

Section 15130(a) of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a project's incremental effect is not cumulatively considerable, the effect need not be considered significant, but the basis for concluding the incremental effect is not cumulatively considerable must be briefly described. Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Cumulative impacts are discussed in each resource section, following discussions of the project-specific impacts.

Probable existing and future projects considered in the cumulative analysis are in the project vicinity and have the possibility of interacting with the Ruby Way-Overlook Court Drainage and Erosion Control Project to generate a cumulative impact (Table 3.21-1). This list of projects was considered in the analysis of the cumulative impacts for resource topics within the geographic scope of each resource topic (as described in the cumulative impact analysis within each resource section).

Table 3.21-1 Ruby Way Overlook Court Drainage and Erosion Control Project Cumulative Projects List

Project Name	Description	Status
U.S. 50 Y to Trout Creek Bridge Stormwater Treatment and Widening Project	Stormwater Improvements, grading, and widening of U.S. 50, between U.S. 50 and Trout Creek Bridge	Construction nearing completion
U.S. 50 - Fresh Pond Slipout Repair Project	Restore roadway for safe riding conditions	Construction planned between September 2020 and June 2022
Johnson Meadow Restoration Project	Restoration of Johnson Meadow by rewetting meadow	Planning/design in progress until 2022. Estimated construction between 2022 and 2030.
Upper Truckee River and Marsh Restoration Project	Restoration of the Upper Truckee River and Marsh by rewetting meadow and removing sailing lagoon	Construction from 2020 to 2024
South Tahoe Greenway Shared-Use Trail	Establishes non-motorized transportation network in the South Shore from Sierra Tract to Van Sickle Bi-State Park	Planning, design, and construction expected between 2020 and 2031
Al Tahoe Boulevard Safety and Mobility Project	Constructs a Class I shared-use path and Class II bicycle lanes along Al Tahoe Boulevard in the vicinity of the South Tahoe Middle School. The limits of the project are Al Tahoe Boulevard between the U.S. 50 and Johnson Boulevard	Planning/design in 2020
Bijou Park Creek Phase 3	Implementation of Upper Watershed Restoration floodplain rehabilitation	Implementation from 2021 to 2025
Tahoe Valley Greenbelt and Stormwater Improvement Project	Includes multiple benefits to stormwater, stream environment zone areas, bicycle and pedestrian improvements, and recreational amenities	Implementation from 2021 to 2024
Pioneer Trail Pedestrian Project Phase II	Continue pedestrian sidewalks, lighting, transit stops, and Class II bicycle lanes from the limits of the completed Phase 1 project (Larch Avenue) to the western limits of Ski Run Boulevard (+0.45 mile)	Planning/Design 2020-2022
Nevada Stateline-to-Stateline Bikeway Laura Drive to Stateline (Phase 1A)	Construct a 1-mile segment of bicycle trail extending the Laura Drive/Kahle (Phase 1B/1D) segments to Stateline along U.S. 50 and then down Lake Parkway adjacent to Edgewood	Planning/design 2020-2022
Forest Health and Vegetation Management Project in Ruby Way area	Remove trees to improve forest health adjacent to the Ruby Way neighborhood	Implementation 2020

3.21.2 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. Construction of the drainage and erosion control 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; reduce or restrict the range of rare or endangered plants or animals (see Section 3.4 for discussion); or, eliminate important examples of the major periods of California history or prehistory (see Sections 3.5 and 3.18 for discussion). The purpose of the project is to prevent erosion and reduce the amount of sediment entering Lake Tahoe, which would improve the quality of the environment. Therefore, the impact on flora, fauna, and cultural resources would be less than significant.

- 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 proposed project would involve the construction of stormwater conveyance and infiltration system and erosion control measures. All of the project’s impacts are less than significant. Many project impacts are site specific and would not combine with other cumulative projects in the area. Additionally, where impacts are not site specific, the project would not cause the exceedance of any regional plans or policies that are adopted for the purpose of environmental protection. In fact, the intention of the project is to improve environmental conditions by preventing erosion and minimizing the transportation of sediment. Finally, no past, current, or probably future projects were identified in the project vicinity that, when added with project related impacts, would result in significant cumulative impacts. Therefore, project would not result in considerable contributions to any such 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. No project-related environmental effects were identified that would cause substantial adverse effects on human beings. As discussed herein, the project’s impacts are all less than significant. Therefore, the project would not have any substantial direct or indirect adverse effects on human beings.

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