COUNTY OF EL DORADO **DEPARTMENT OF TRANSPORTATION**

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MITIGATED NEGATIVE DECLARATION

FINDINGS

In accordance with the County of El Dorado (County) Ordinances regarding implementation of the California Environmental Quality Act (CEQA), the County has prepared an Initial Study to assess the Project's potential effects on the environment and the significance of those effects. On the basis of that study the County hereby finds:

☐ The proposed project will not have a significant adverse effect on the environment; therefore, it does not require the preparation of an Environmental Impact Report and this **Negative Declaration** has been prepared.

☒ Although the proposed project could have a significant adverse effect on the environment, there will not be a significant adverse effect in this case because the County will adopt the Mitigation Monitoring and Reporting Program (Appendix B) that contains the mitigation measures necessary for the project to have a less than significant impact. A **Mitigated Negative Declaration** has thus been prepared.

Per Section 21082.1 of the CEQA Guidelines, the County has independently reviewed and analyzed the Initial Study and Proposed Mitigated Negative Declaration for the Proposed Project and finds that they reflect the independent judgment of the County. The environmental documents, which constitute the Initial Study and provide the basis and reasons for this determination are attached and/or referenced herein and are hereby made a part of this document.

Per Section 15072 (f) (5) of the CEQA Guidelines, the Project site is not on any list compiled pursuant to Government Code section 65962.5 as a hazardous waste facilities, land designated as a hazardous waste property, or a hazardous waste disposal site.

PROJECT INFORMATION

Title: Boulder Mountain Erosion Control Project (JN 95153)	
Description: Construction of erosion control and water quality improvement facilities.	
Location: The Project area is located in eastern El Dorado County, California within the Lake Tahoe Basin. The Project is located in South Lake Tahoe, in the North Upper Truckee Subdivision, west of Lake Tahoe Boulevard. The Project falls entirely within El Dorado County road rights-of-way.	
Owner/Applicant: County of El Dorado Department of Transportation – Tahoe Engineering Unit	
Lead Agency: County of El Dorado Department of Transportation – Tahoe Engineering Unit	
County Contact: Brendan Ferry, Senior Environmental Planner	**Phone:** 530-573-7900
Address: 924 B Emerald Bay Road, South Lake Tahoe, CA 96150	

AVAILABILITY OF DOCUMENTS

The Initial Study for this Mitigated Negative Declaration is available for review at the County of El Dorado Department of Transportation – Tahoe Engineering Unit, 924B Emerald Bay Road, South Lake Tahoe, CA. The document is also available for review at the County of El Dorado South Lake Tahoe Branch Library at 1000 Rufus Allen Blvd., South Lake Tahoe, CA. The library's hours of operation are from 10:00 am – 8:00 pm on Tuesday and Wednesday; 10:00 am – 5:00 pm on Thursday, Friday, and Saturday. The library is closed on Sunday and Monday. In addition to the South Lake Tahoe locations, the document is available at the California State Clearinghouse located at 1400 Tenth St., Sacramento, CA.

PROJECT DESCRIPTION

The County of El Dorado - Department of Transportation (EDOT) proposes to implement the Boulder Mountain Erosion Control Project (Project) during the 2013 construction season to assist with meeting the goals of the Tahoe Regional Planning Agency's (TRPA) Environmental Improvement Program (EIP). In 1997, the TRPA developed a Basin-wide EIP that defined various projects which, once implemented, would assist in attaining and maintaining TRPA Environmental Threshold Carrying Capacities (ETCC) as well as meet other federal and state enviromental goals. TRPA has established thresholds for air quality, water quality, soil conservation, vegetation, noise, scenic resources, recreation, fisheries, and wildlife to address public health and safety of residents and visitors as well as the scenic, recreation, education, scientific, and natural values of the Lake Tahoe Basin. The Boulder Mountain Erosion Control Project is defined in the TRPA EIP as Project # 705.1. This Project is being designed and constructed with financial assistance from the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU) and TRPA mitigation funds.

The Project site is an existing residential development, north of Lake Tahoe Boulevard and west of Tahoe Mountain Road in South Lake Tahoe, CA (Figure 1). The overall goal of the Project is to design and implement erosion control and water quality improvement measures that will reduce the discharge of sediment and pollutants to Lake Tahoe from County administered rights-of-way in the Boulder Mountain area. The Proposed Project will not change the use of the site or surrounding area. The Project will benefit the natural environment with the implementation of the proposed improvements. After Project completion, less sediment will enter Angora Creek from the Project area, thereby improving water quality in Lake Tahoe.

PROJECT BACKGROUND

EDOT utilized the Lake Tahoe Basin Stormwater Quality Improvement Committee's (SWQIC) *Formulating and Evaluating Alternatives for Water Quality Improvement Projects* document for guidance in selecting a preferred Project alternative. The Project Development Team (PDT) investigated a range of possibilities for the water quality improvements in the Project area. The process of evaluating and selecting a preferred alternative for this Project included the production and analysis of the following documents:

- Draft Feasibility Report (EDOT 2012)
- Final Feasibility Report (EDOT 2012)
- Preferred Alternative Memorandum (EDOT 2012)

In June 2012, the County completed a Draft Feasibility Report (Report) for Boulder Mountain that investigated the existing conditions, identified problem areas and proposed Project alternatives within the Project boundary. The alternatives evaluated different water quality improvements and erosion control mitigation measures for the problem areas. After receiving feedback from the PDT and the public, the County completed a Final Feasibility Report in August 2012. Finally, based upon further feedback, the County completed a Preferred Alternative Memorandum in September 2012.

PROPOSED PROJECT

The Proposed Project was selected by EDOT, the PDT and the public and is described in further detail below (outlined on Figure 5) and is a compilation of the most comprehensive design ideas for each street within the Project area which meets the goals and objectives of the EIP and the Project. All proposed measures will be in compliance with applicable laws and TRPA and Lahontan regulations.

Locations requiring source control include the isolated areas of bare and eroding slopes, the eroding dirt portion of Boulder Mountain Drive, and the eroding portion of the STPUD access road on Forest Mountain Drive. Revegetation is proposed for stabilizing the eroding slopes. AC pavement is proposed for stabilizing Boulder Mountain Drive and the STPUD access road. The limits of the AC pavement for Boulder Mountain Drive are based on the location of the semi paved/unsurfaced portions of the road. The new pavement section will be installed in such a manner that runoff will sheet flow east for treatment on publically owned parcels or west into an existing rock-lined channel. On the south end of Boulder Mountain Drive, runoff will be directed into the existing rock-lined channel and conveyed into the existing sediment basin on the western side of the road or into an existing sediment trap on the eastern side.

With the increase in flow from the nearby seep, the existing 12" diameter pipe will be replaced with an 18" diameter pipe at the intersection of Cone Road and Boulder Mountain Drive. A flared end section with a rock dissipater will be added at the inlet and outlet of the pipe. This will extend the life of the conveyance at this location. It will also ensure adequate capacity in the pipe to handle the blockage due to increased vegetative growth.

To protect the road shoulder and pavement on Iron Mountain Circle and Granite Mountain Circle from further degradation, EDOT proposes to construct infiltrating channels and install driveway pipes. These channels will be either rock or grass-lined and will convey runoff into existing sediment traps or channels for treatment prior to runoff leaving the Project site. The driveway pipes will be either solid wall or perforated and will ensure runoff remains within the channel alignment while protecting the driveway surface from water related damage.

At the east corner of Boulder Mountain Drive and Forest Mountain Drive, roadway pavement extends onto private property. This pavement will be removed and the area will be revegetated. The sawcut edge of the existing pavement will redefine the northbound lane limit.

Ponding and sediment accumulates at the intersection of Boulder Mountain Drive and Lake Tahoe Blvd. A drainage inlet with a sump is proposed at each corner which will intercept runoff and trap sediment. Runoff from the drainage inlets will be conveyed via pipe to an existing manhole at the intersection. From the manhole, flow will be conveyed along Lake Tahoe Blvd., beyond the Project boundary.

Alternative 2 proposes fewer improvements than Alternative 1 but more than Alternative 3. To ensure that all improvements are effective and sustainable, EDOT proposes the following additions for the Preferred Alternative for the Boulder Mountain ECP:

1) Substitute rock slope protection for revegetation where site conditions warrant; and

2) Add perforated pipe in conjunction with the infiltrating channels where site conditions warrant.

SUMMARY OF ENVIRONMENTAL ANALYSIS

EDOT prepared an Initial Study to assess the Project's potential effects on the environment and the significance of those effects. Based on the Initial Study, EDOT determined that the Proposed Project will not have any significant environmental impacts with the implementation of mitigation measures. EDOT will adopt the mitigation measures located in the Mitigation Monitoring and Reporting Program. This conclusion is supported by the following findings:

- The Proposed Project will have no adverse impacts in the areas of agriculture and forest resources, cultural resources, land use and planning, mineral resources, population and housing, recreation and public services.
- The Proposed Project will have a less than significant impact in the areas of aesthetics, air quality, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, utilities and service systems, and greenhouse gas emissions. Discussion on each of these findings is provided below.

Aesthetics: The Project area is not visible from any designated Scenic Highways. The intent of the Project is to improve the quality of the area by stabilizing bare soil areas with native vegetation, by paving a dirt road and by enhancing drainage features and installing infiltration systems that will benefit the environment. While there will be temporary aesthetic impacts due to construction, there will be no long term degradation of aesthetic quality in the Project area and therefore the Project has a less than significant impact.

Air Quality: The Project will have no long term impacts to air quality. Construction equipment may impact air quality for the short term during construction, but impacts are only temporary and will not result in a cumulative increase of criteria pollutants for which the Project region is in non-attainment nor will it expose sensitive receptors to substantial pollutant concentrations. The Project will not create objectionable odors affecting a substantial number of people. Proper best management practices (BMPs), per TRPA's Handbook of BMPs, and construction controls shall be implemented to prevent the Project activities from violating air quality standards and therefore the Project has a less than significant impact.

Biological Resources: Field surveys and assessments were conducted within the Project survey area for special status botanical and wildlife species on June 30, 2010 and July 1, 2010. The biological assessment surveys observed no federal or state-listed candidate, or proposed botanical or wildlife species in the Project study area. However, potential habitat conditions do exist for one special-status species, the Northern Goshawk, although none were noted during the survey. A noxious weed survey was also conducted within the Project survey area on June 30, 2010 and July 1, 2010. The survey identified five noxious weed species within the Project area: cheatgrass (*Bromus tectorum*), bull thistle (*Cirsium vulgare*), scotch broom (*Cytisus scoparius*), oxeye daisy (*leucantheumum vulgare*) and wolly mullein (*Verbascum Thapsus*). The survey also identified one invasive species within the Project area: sweetclover (*Melilotus* sp.). A Noxious Weed Mitigation/Eradication Protocol will be implemented by the County as part of the Proposed Project which will help decrease habitat vulnerability to or below pre-construction levels. The Protocol includes pre-construction elements, such as treating existing noxious weed populations identified in the Project area, as well as during- and post-construction

elements. Additionally, the County will specify weed-free seed mix and require all construction equipment be certified steam cleaned prior to accessing the site.

Cultural Resources: A cultural resource study, which included a literature search and an archaeological survey/inventory of the Project survey area, was completed on July 5, 2010. Fourteen previous cultural resources studies have been conducted in the vicinity of the Project area, four of which included portions of the Area of Potential Effects (APE). No cultural resources have been previously recorded within the APE and none were identified within the APE during the pedestrian survey. The APE is considered to have a low sensitivity for the discovery of prehistoric, ethno historic, or historic cultural material, or subsurface deposits. Because of this, no additional cultural resources work for this Project is recommended. However, in the event that cultural resources are discovered during Project implementation, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

Geology/Soils: The Proposed Project involves earth-moving activities estimated at approximately 740 cubic yards, which will cause temporary soil erosion in the Project area. The majority of the earth-moving activities (approximately 622 cubic yards) involve grading the existing dirt road to prepare it to be paved. The County will prepare and require as part of the Contract Documents a Storm Water Pollution Prevention Plan (SWPPP) and a Revegetation Plan that the contractor must adhere to. The contractor will also implement temporary and permanent BMPs per the TRPA Handbook of BMPs prior to and during construction to prevent erosion within the Project area. EDOT will also perform two years of irrigation/vegetation establishment after the Project is complete to ensure that the site is restored to pre-project conditions, at a minimum. The SWPPP will also include and require appropriate measures to help sequence construction and minimize soil erosion through the use of approved sound construction practices to a less than significant level.

Hazards/Hazardous Materials: The Project will have no long term impacts from hazards or hazardous materials in the Project area. During construction there is a risk of accidental fuel spills from construction equipment. The contractor will be required to prepare and adhere to a Spill Contingency Plan as part of the SWPPP and shall have spill prevention kits and other approved BMPs and construction controls available to prevent and/or contain any accidental spills.

Hydrology/Water Quality: The primary goal of the Project is to benefit water quality by improving the existing stormwater conveyance system and associated facilities in the Project area; thereby reducing the amount of pollutants entering Angora Creek and ultimately, Lake Tahoe. The Project will have no long term negative impacts on hydrology/water quality. Project construction related activities can pose short term water quality impacts during storm events or accidental fuel spills from construction equipment, however the County will prepare a SWPPP, Temporary Erosion Control Plan and a Revegetation Plan that the contractor must adhere to in order to address short term impacts associated with soil disturbance. At a minimum, this will include containing the site with proper BMPs, protecting existing storm water facilities, staging and storing materials properly, and sweeping daily. To ensure all mitigation measures are addressed and monitored, the contractor will prepare and adhere to the SWPPP in accordance with TRPA and the Lahontan Regional Water Quality Control Board (Lahontan) requirements for storm water pollution prevention.

Noise: Project construction will result in a temporary increase in ambient noise levels due to equipment noise and construction activities. Per TRPA Standard Permit Conditions, operation shall be restricted to the hours of 8:00 a.m. to 6:30 p.m. All equipment and vehicles used for Project construction shall have proper muffler devices and be tuned to the manufacturer's specification. The County will advise potentially affected residents of the proposed construction activities including duration, schedule, and contacts for filing noise complaints. The County and/or contractor will respond to all noise complaints received within one working day and will work to resolve the issue immediately.

Recreation: The Proposed Project will have no impact on recreation within the Project area. There is an existing user trail that crosses Boulder Mountain Drive which will remain accessible to the public during construction.

Transportation/Traffic: There will be short term construction impacts on traffic from truck and daily work trips to the Project area. Traffic controls will only be implemented during work hours and when it is necessary to perform work, which will be outlined in a Traffic Control Plan prepared by and adhered to by the contractor. At no time will access for local residents, emergency vehicles, school buses, pedestrians, or bicyclists be prohibited, therefore the Project will have a less than significant impact on transportation and traffic.

Utilities and Service Systems: During Project construction, portions of the site may have exposed soil areas that, during a rain or high wind event or utility line breach, could cause minor erosion. Once construction is complete and the erosion control and water quality improvement measures are in place, surface runoff and erosion will be reduced and water quality will be improved. The contractor will prepare and adhere to a SWPPP and a Temporary Erosion Control which will include TRPA approved BMPs to minimize soil erosion during construction to a less than significant level.

Greenhouse Gas Emissions: Climate change refers to long-term fluctuations in temperature, precipitation, wind, and other elements of Earth's climate system. Natural processes such as solar-irradiance variations, variations in Earth's orbital parameters, and volcanic activity can produce variations in climate. The climate system can also be influenced by changes in the concentration of various gases in the atmosphere, which affect Earth's absorption of radiation.

During construction, the Project would temporarily cause direct greenhouse gas (GHG) emissions from the combustion of fossil fuels used to run construction equipment and vehicles, both onsite and offsite. These GHG emissions would be temporary and one-time emissions during the construction of the Project. Over its lifetime, the Project would directly and indirectly cause negligible GHG emissions from occasional maintenance and personal vehicle use. Therefore, EDOT's analysis focused on construction impacts estimated using the County's past project implementation database and the U.S. Environmental Protection Agency (USEPA) GHG emission factors for diesel fuel and gasoline combustion in construction equipment. The County has reviewed past construction logs for projects equivalent in size and scope to the Proposed Project to determine the typical number and type of vehicles that are actively working to construct the Project each day. Based on this analysis, the County has formulated the following assumptions:

- Fifteen workers per day, driving five vehicles to work an average of 40 miles roundtrip per day
- Vehicles average 20 miles per gallon
- Twelve pieces of construction machinery per day
- Crews work eight hours per day with machinery running half that time (4 hours)
- Machinery burns an average of two gallons of diesel fuel per hour
- Diesel fuel contributes approximately 22.5 lbs CO_2/gallon
- Gasoline contributes approximately 20 lbs CO_2/gallon
- The Project will be completed in 30 working days

Based on these assumptions, the Proposed Project would emit approximately 32 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 480,000,000 metric tons discussed below in the Initial Study (0.00000007 percent). The estimated amount is also significantly less than the San Luis Obispo Air Pollution Control District's (SLOAPCD) significance threshold of 1,150 metric tons of CO_2 equivalents. Because of this and the fact that direct onsite and offsite GHG emissions would terminate following completion construction work, the Project will have a less than significant impact on GHG emissions.

PUBLIC NOTICE

The comment period for this document closes on November 26, 2012. A copy of the Initial Study/Proposed Mitigated Negative Declaration is available for public review at the County of El Dorado Department of Transportation – Tahoe Engineering Unit at 924 B Emerald Bay Road, South Lake Tahoe, CA 96150 between the hours of 8:00 am and 5:00 pm. The document is also available for review at the County of El Dorado Library – South Lake Tahoe Branch at 1000 Rufus Allen Blvd., South Lake Tahoe, CA 96150 between the hours of 10:00 am and 8:00 pm Tuesday and Wednesday and 10:00 am and 5:00 pm Thursday through Saturday. The Library is closed on Sunday and Monday.

All parties providing written comments during this timeframe will be notified of the upcoming hearing before the Board of Supervisors. Additional information may be obtained by contacting the El Dorado County Department of Transportation – Tahoe Engineering Division at (530) 573-7900 or 924 B Emerald Bay Road, South Lake Tahoe, CA 96150.

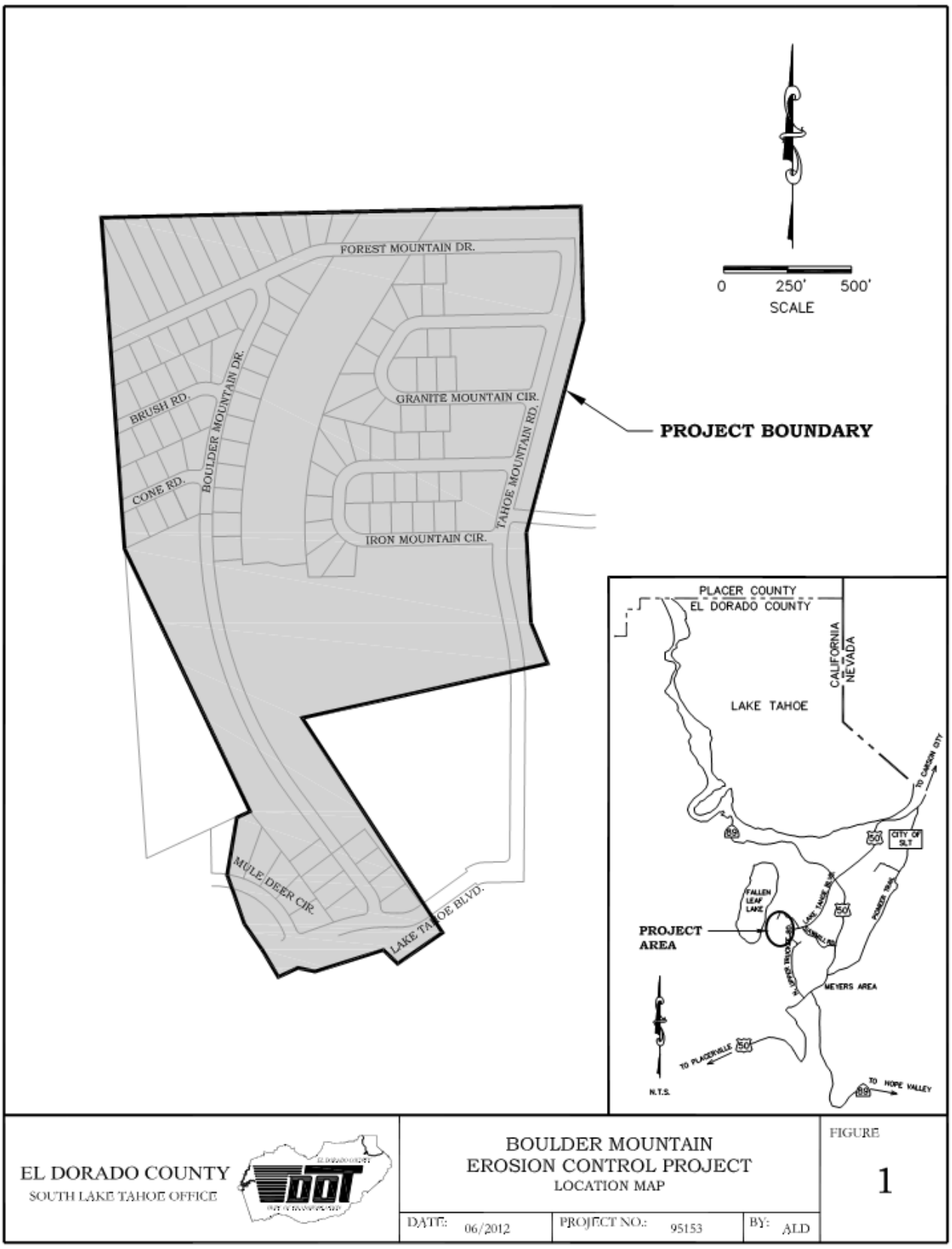
If you wish to appeal the appropriateness or adequacy of this document, address your written comments to our finding that the Project will not have a significant adverse effect on the environment: (1) identify the environmental effect(s), why they would occur, and why they would be significant, and (2) suggest any mitigation measures which you believe would eliminate or reduce the effect to an acceptable level. Regarding item (1) above, explain the basis for your comments and submit any supporting data or references.

Brendan Ferry, Senior Environmental Planner

County of El Dorado—Lead Agency

Recorder's Certification

FIGURE 1


FOREST MOUNTAIN DR.
BRUSH RD.
BOULDER MOUNTAIN DR.
CONE RD.
GRANITE MOUNTAIN CIR.
TAHOE MOUNTAIN RD.
IRON MOUNTAIN CIR.
MULE DEER CIR.
LAKE TAHOE BLVD.
0 250' 500'
SCALE
PROJECT BOUNDARY
PLACER COUNTY
EL DORADO COUNTY
CALIFORNIA
NEVADA
LAKE TAHOE
TO CARSON CITY
CITY OF SLT
FALLEN LEAF LAKE
PROJECT AREA
MEYERS AREA
TO PLACERVILLE
TO HOPE VALLEY
N.T.S.
EL DORADO COUNTY
SOUTH LAKE TAHOE OFFICE
BOULDER MOUNTAIN
EROSION CONTROL PROJECT
LOCATION MAP
FIGURE
1
DATE: 06/2012
PROJECT NO.: 95153
BY: ALD

CEQA
INITIAL STUDY/
PROPOSED MITIGATED NEGATIVE DECLARATION

BOULDER MOUNTAIN
EROSION CONTROL PROJECT
EIP PROJECT # 705.1
JN 95153

STATE CLEARINGHOUSE # 2012102049

Prepared by:

County of El Dorado
Department of Transportation
Tahoe Engineering Unit
924 B Emerald Bay Road
South Lake Tahoe, CA 96150

FINAL
November 2012

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FIGURES

APPENDICES

1.0 INTRODUCTION

The County of El Dorado Department of Transportation-Tahoe Engineering Unit (EDOT) prepared this Draft Initial Study to identify and assess the anticipated environmental impacts of the following Project. This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.), the State CEQA Guidelines (14 CCR 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. This document may rely on previous environmental documents and site-specific studies prepared for the Project.

The Draft Initial Study is a public document used by the decision making lead agency to determine whether a Project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the Project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the Project is adverse or beneficial, the lead agency is required to prepare an Environmental Impact Report (EIR). The lead agency may also use a previously-prepared EIR and supplement that EIR, or prepare a Subsequent EIR to analyze the Project. If the agency finds no substantial evidence that the Project or any of its aspects may cause a significant effect on the environment, a Negative Declaration shall be prepared. If in the course of analysis, the agency recognizes that the Project may have a significant impact on the environment, but that by incorporating specific mitigation measures the impact will be reduced to a less than significant effect, a Mitigated Negative Declaration shall be prepared.

EDOT has reviewed the Proposed Project and determined that the Project, with mitigation measures, as identified in this document, will not have a significant effect on the environment. Therefore, a Mitigated Negative Declaration will meet the requirements of CEQA.

A CEQA Checklist (Appendix A) has been completed based on the Project's Feasibility Report; however, should significant impacts or new mitigation measures result from the CEQA review process, EDOT will recirculate the document for public review. The public review period for the Draft Initial Study/Proposed Mitigated Negative Declaration shall begin on October 26, 2012 and end on November 26, 2012. Comments received after 5:00 pm on November 26, 2012 will not be considered. Written responses should be sent to Brendan Ferry, Senior Environmental Planner, at the following address:

County of El Dorado Department of Transportation
CEQA Compliance
924 B Emerald Bay Road
South Lake Tahoe, CA 96150
(530) 573-7900
brendan.ferry@edcgov.us

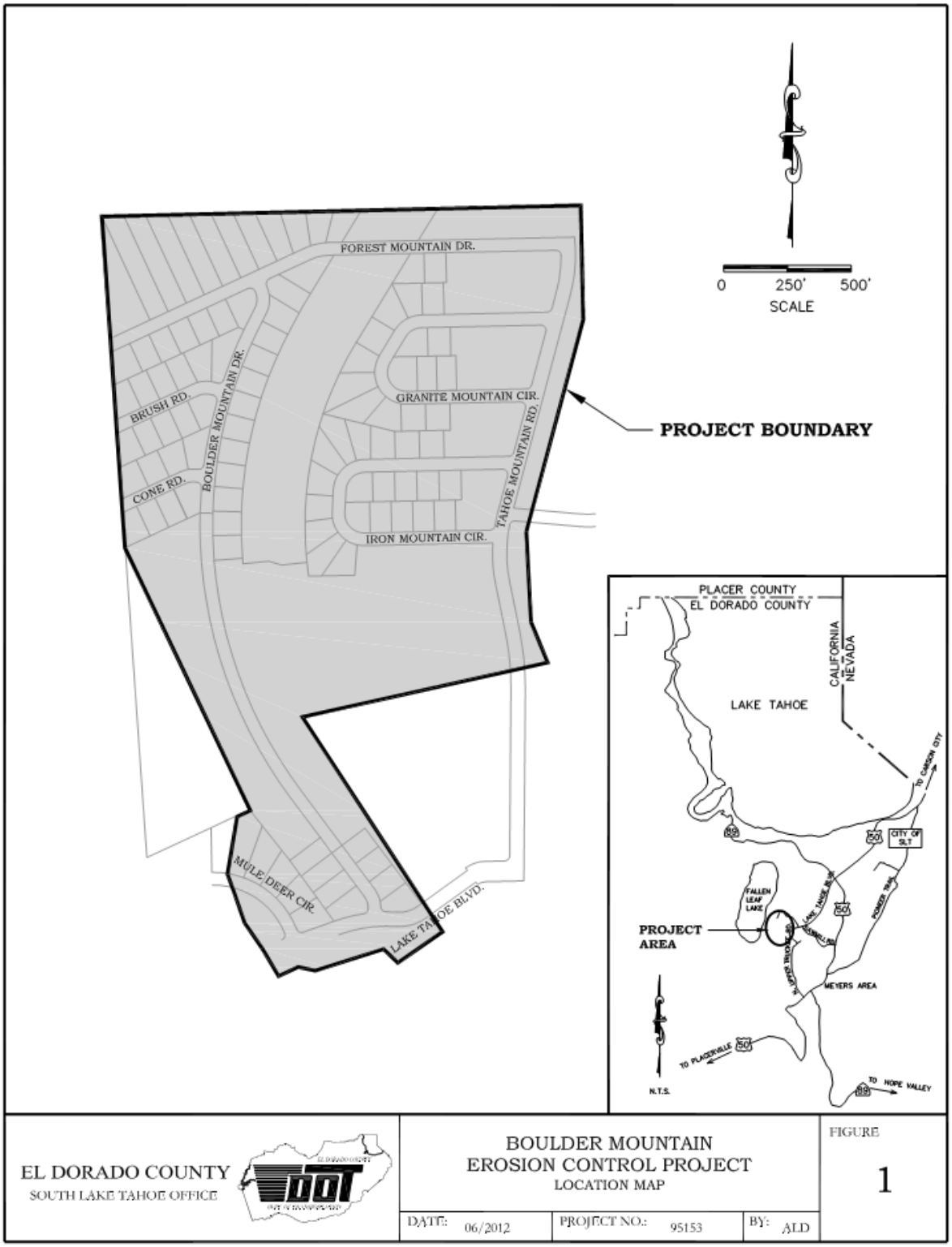
2.0 PROJECT DESCRIPTION AND LOCATION

The County of El Dorado - Department of Transportation (EDOT) proposes to implement the Boulder Mountain Erosion Control Project (Project) during the 2013 construction season to assist with meeting the goals of the Tahoe Regional Planning Agency's (TRPA) Environmental Improvement Program (EIP). In 1997, the TRPA developed a Basin-wide EIP that defined various projects which, once implemented, would assist in attaining and maintaining TRPA Environmental Threshold Carrying Capacities (ETCC) as well as meet other federal and state enviromental goals. TRPA has established thresholds for air quality, water quality, soil conservation, vegetation, noise, scenic resources, recreation, fisheries, and wildlife to address public health and safety of residents and visitors as well as the scenic, recreation, education, scientific, and natural values of the Lake Tahoe Basin. The Boulder Mountain Erosion Control Project is defined in the TRPA EIP as Project # 705.1. This Project is being designed and constructed with financial assistance from the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU) and TRPA mitigation funds.

The Project site is an existing residential development, north of Lake Tahoe Boulevard and west of Tahoe Mountain Road in South Lake Tahoe, CA (Figure 1). The overall goal of the Project is to design and implement erosion control and water quality improvement measures that will reduce the discharge of sediment and pollutants to Lake Tahoe from County administered rights of way in the Boulder Mountain area. The Proposed Project will

not change the use of the site or surrounding area. The Project will benefit the natural environment with the implementation of the proposed improvements. After Project completion, less sediment will enter Angora Creek from the Project area, thereby improving water quality in Lake Tahoe.

Figure 1



The Project is intended to improve water quality by reducing erosion and treating storm water runoff from the existing roadway infrastructure within the Project corridor by installing appropriate best management practices. Figure 5 outlines the Proposed Project alternative, and can be found at the end of this Initial Study.

2.1 Project Need

Pursuant to the requirements of Section 208 of the Clean Water Act, the TRPA prepared a Water Quality Management Plan for the Lake Tahoe Basin (208 Plan). The 208 Plan identified erosion, runoff and disturbance resulting from developments, such as subdivision roads, in the Lake Tahoe Basin as major causes of the decline of Lake Tahoe's water quality and clarity. The 208 Plan also mandates that capital improvement projects such as the Boulder Mountain Erosion Control Project be implemented to bring all County of El Dorado (County) roads into compliance with best management practices (BMP) requirements. Additionally, the TRPA developed the EIP to assist in attaining and maintaining TRPA's Environmental Thresholds. The EIP identified the need to improve the quality of water entering Lake Tahoe by controlling upstream pollutant sources. Pollutant sources primarily include fine sediment and nutrients like nitrogen and phosphorus.

The Project Development Team (PDT) identified erosion, water quality and drainage/infrastructure problems within the Project area. The problems within the Project area are typical of those found within older residential subdivisions and commercially developed areas in the Tahoe Basin. The problems were evaluated during site inspections by EDOT, TRPA and USFS-LTBMU staff. The problem areas the Project intends to address are listed below.

Source Erosion

- Bare Dirt Roadway
- Eroding Slopes
- Eroding Roadside Shoulders
- Compacted Parking Areas

Water Quality

- Road Sand and Cinder Accumulation
- Sediment Deposition and Tracking
- Concentration of Stormwater Flows
- Discharge of Untreated Stormwater

Drainage and Infrastructure

- Eroding Drainage Ditches and Channels
- Undersized and Damaged Culverts
- Undersized or Nonexistent Roadside Ditches
- Undersized or Inadequate Basins

2.2 Project Approach

EDOT utilized the Lake Tahoe Basin Stormwater Quality Improvement Committee's (SWQIC) *Formulating and Evaluating Alternatives for Water Quality Improvement Projects* document for guidance in selecting a preferred Project alternative. The Project Development Team (PDT) investigated a range of possibilities for the water quality improvements in the Project area. The process of evaluating and selecting a preferred Project alternative included producing and analyzing the following documents:

- Draft Feasibility Report (EDOT 2012)
- Final Feasibility Report (EDOT 2012)
- Preferred Alternative Memorandum (EDOT 2012)

In June 2012, the County completed a Draft Feasibility Report (Report) for Boulder Mountain that investigated the existing conditions, identified problem areas and proposed Project alternatives within the Project boundary. The alternatives evaluated different water quality improvements and erosion control mitigation measures for the problem areas. After receiving feedback from the PDT and the public, the County completed a Final Feasibility

Report in August 2012. Finally, based upon further feedback, the County completed a Preferred Alternative Memorandum in September 2012.

The above documents are available through EDOT. A synopsis of alternatives that were evaluated as part of the planning process is presented below.

2.3 Concept Alternatives

In order to develop the Project alternatives, EDOT presented three feasible alternatives for the erosion control and water quality aspects of the Project. Each had pros and cons that were outlined and analyzed in the Feasibility Report. Each alternative was evaluated using a matrix consisting of several factors that affected the feasibility and effectiveness of each alternative. These were factors like cost, affects to sensitive species and cultural sites, safety, scenic issues, permittability, fundability, etc. Once each alternative was evaluated, the PDT and public had a chance to weigh in and decide, with EDOT, on the preferred Project alternative.

EDOT utilized a comprehensive watershed-based approach to develop BMP alternatives for each watershed within the Project area. This strategy helped to identify the existing storm water flow paths, sources of sediment and hydrologic and hydraulic characteristics in a very practical fashion and identified how to properly address the erosion and water quality issues. The Project design focuses mainly on capturing and treating storm water and fine sediment. The BMP alternatives were designed for each problem area and were analyzed at the Project site for effectiveness at solving the water quality issue in a cost effective, easily maintainable manner. The BMP alternatives were developed using proven erosion source control, hydrologic design, and runoff treatment strategies.

The three Project alternatives that were considered are presented below, along with erosion control measures that were considered but not presented. Figure 2 outlines existing conditions and known problem areas within the Project area. Figure 5 identifies the proposed improvements for the preferred Project alternative (Proposed Project), which is described in further detail below in Section 2.4.

The three alternatives formulated to address the erosion, hydrologic, and treatment deficiencies with the Project area are described below.

Alternative 1

Figure 3 depicts the facilities and treatments proposed for Alternative 1. Locations requiring source control include the isolated areas of bare and eroding slopes, the eroding dirt portion of Boulder Mountain Drive, and the eroding portion of the STPUD access road on Forest Mountain Drive. Rock slope protection and revegetation are proposed for stabilizing the eroding slopes. AC pavement is proposed for stabilizing Boulder Mountain Drive and the STPUD access road. The limits of the AC pavement for Boulder Mountain Drive are based on the condition of the existing pavement north and south of the semi paved/unsurfaced portion of the road, which currently is exhibiting evidence of imminent failure. In order to match existing driveways and intersections on the north end of Boulder Mountain Drive, the new pavement section will be crowned, with runoff sheet flowing into the existing roadside conveyances. Below Cone Road, the new pavement section will be installed in such a manner that runoff will sheet flow east for treatment on publically owned parcels. On the south end of Boulder Mountain Drive, runoff will be directed into an existing rock-lined channel and conveyed into the existing sediment basin on the western side of the road or into an existing sediment trap on the eastern side. The paving at the STPUD access will provide a flowpath for seep flow across the surface and will stabilize the dirt access.

With the increase in flow from the nearby seep, the existing 12” diameter pipe will be replaced with an 18” diameter pipe at the intersection of Cone Road and Boulder Mountain Drive. A flared end section with a rock dissipater will be added at the inlet and outlet of the pipe. This will extend the life of the conveyance at this location. It will also ensure adequate capacity in the pipe to handle the blockage due to increased vegetative growth.

To protect the road shoulder and pavement on Iron Mountain Circle and Granite Mountain Circle from further degradation, underground perforated pipe systems are proposed. These pipes will be located in the road shoulder, beneath shallow, roadside ditches. Most, if not all of the surface runoff and contributing seep flow will infiltrate into the perforated pipes and will be conveyed into existing sediment traps or channels for further treatment prior to leaving the Project site.

At the east corner of Boulder Mountain Drive and Forest Mountain Drive, roadway pavement extends onto private property. This pavement will be removed and the area will berevegetated. The sawcut edge of the existing pavement will redefine the northbound lane limit.

Ponding and sediment accumulates at the intersection of Boulder Mountain Drive and Lake Tahoe Blvd. A drainage inlet with a sump is proposed at each corner which will intercept runoff and trap sediment. Runoff from the drainage inlets will be conveyed via pipe to an existing manhole at the intersection. From the manhole, flow will be conveyed along Lake Tahoe Blvd., beyond the Project boundary.

Alternative 2

Figure 5 depicts the facilities and treatments proposed for Alternative 2 (Proposed Project). Alternative 2 is the same as Alternative 1 except that the proposed paving limits on Boulder Mountain Drive do not extend beyond the existing semi paved/unsurfaced portions of the road, and the subsurface perforated pipes along Iron Mountain Circle and Granite Mountain Circle are not proposed. Locations requiring source control include the isolated areas of bare and eroding slopes, the eroding dirt portion of Boulder Mountain Drive, and the eroding portion of the STPUD access road on Forest Mountain Drive. Revegetation is proposed for stabilizing the eroding slopes. AC pavement is proposed for stabilizing Boulder Mountain Drive and the STPUD access road. The limits of the AC pavement for Boulder Mountain Drive are based on the location of the semi paved/unsurfaced portions of the road. The new pavement on Boulder Mountain Drive and at the STPUD access will be installed in the same manner as described in Alternative 1.

With the increase in flow from the nearby seep, the existing 12” diameter pipe will be replaced with an 18” diameter pipe at the intersection of Cone Road and Boulder Mountain Drive. A flared end section with a rock dissipater will be added at the inlet and outlet of the pipe. This will extend the life of the conveyance at this location. It will also ensure adequate capacity in the pipe to handle the blockage due to increased vegetative growth.

To protect the road shoulder and pavement on Iron Mountain Circle and Granite Mountain Circle from further degradation, constructing infiltrating channels and installing driveway pipes is proposed. These channels will be either rock or grass-lined and will convey runoff into existing sediment traps or channels for treatment prior to runoff leaving the Project site. The driveway pipes will be either solid wall or perforated and will ensure runoff remains within the channel alignment while protecting the driveway surface from water related damage.

At the east corner of Boulder Mountain Drive and Forest Mountain Drive, roadway pavement extends onto private property. This pavement will be removed and the area revegetated. The sawcut edge of the existing pavement will redefine the northbound lane limit.

Ponding occurs and sediment accumulates at the intersection of Boulder Mountain Drive and Lake Tahoe Blvd. A drainage inlet with a sump is proposed at each corner which will intercept runoff and trap sediment. Runoff from the drainage inlets will be conveyed via pipe to an existing manhole at the intersection. From the manhole, flow will be conveyed along Lake Tahoe Blvd., beyond the Project boundary.

Alternative 3

Figure 4 depicts the facilities and treatments proposed for Alternative 3. Alternative 3 is differs from Alternative 2 in that it proposes to add aggregate base to Boulder Mountain Drive instead of AC pavement. Alternative 3 also proposes less erosion control and water quality improvements than Alternative 2. Locations requiring source control are isolated areas of bare and eroding slopes, the eroding dirt portion of Boulder Mountain Drive, and the eroding portion of the STPUD access road on Forest Mountain Drive. Revegetation is proposed for stabilizing the eroding slopes. Aggregate base is proposed for stabilizing Boulder Mountain Drive and the STPUD access road. The aggregate base on Boulder Mountain Drive and at the STPUD access will be installed in the same manner as the AC pavement described in Alternative 1.

Erosion Control Measures Considered but Not Selected

Cul-de-sacs at the north and south ends of Boulder Mountain Drive: This proposal was presented at public meetings as a means to abandon Boulder Mountain Drive and provide emergency vehicle turn-around access. Due to the required width of a cul-de-sac, it was determined that additional right-of-way would need to be obtained from the USFS. Restrictions attached to the funding used to purchase the property prevented the USFS from granting the additional right-of-way because existing undisturbed ground surface would have to be paved which is not an allowable use on the USFS parcels purchased with Burton-Santini funding.

The cul-de-sac alternative created another potential problem by reducing the opportunities for ingress-egress into the subdivision. In addition to Forest Mountain Drive, Boulder Mountain Drive is used as the second point of ingress-egress to access the homes on the upper section of Boulder Mountain Drive during the summer and fall months. During the winter months, because the road has not been consistently plowed, homeowners only point of access is from Forest Mountain Drive. The travel way grade at the northern terminus of Boulder Mountain Drive (at Forest Mountain Drive) is approximately 15%. In the past, difficulties have been reported by the homeowners with exiting the subdivision from this point due to the steepness of the road.

The homeowners at the southern end of Boulder Mountain Drive have reported difficulties with egress from the subdivision onto Lake Tahoe Blvd. Due to existing homes and topography, the site distance is limited at this intersection, especially when exiting from Boulder Mountain Drive onto Lake Tahoe Blvd, heading east. The County records of accident reports indicate that in the past 10 years there have been 4 accidents near this intersection, with no fatalities. The County will address this intersection as part of the Lake Tahoe Blvd. Enhancement Project which is currently in the Design Phase.

2.4 Detailed Site Conditions and Proposed Project

The Proposed Project was selected by EDOT, the PDT and the public and is described in further detail below (outlined on Figure 5) and is a compilation of the most comprehensive design ideas for each street within the Project area which meets the goals and objectives of the EIP and the Project. All proposed measures will be in compliance with applicable laws and TRPA and Lahontan regulations.

Locations requiring source control include the isolated areas of bare and eroding slopes, the eroding dirt portion of Boulder Mountain Drive, and the eroding portion of the STPUD access road on Forest Mountain Drive. Revegetation is proposed for stabilizing the eroding slopes. AC pavement is proposed for stabilizing Boulder Mountain Drive and the STPUD access road. The limits of the AC pavement for Boulder Mountain Drive are based on the location of the semi paved/unsurfaced portions of the road. The new pavement section will be installed in such a manner that runoff will sheet flow east for treatment on publically owned parcels or west into an existing rock-lined channel. On the south end of Boulder Mountain Drive, runoff will be directed into the existing rock-lined channel and conveyed into the existing sediment basin on the western side of the road or into an existing sediment trap on the eastern side.

With the increase in flow from the nearby seep, the existing 12” diameter pipe will be replaced with an 18” diameter pipe at the intersection of Cone Road and Boulder Mountain Drive. A flared end section with a rock dissipater will be added at the inlet and outlet of the pipe. This will extend the life of the conveyance at this location. It will also ensure adequate capacity in the pipe to handle the blockage due to increased vegetative growth.

To protect the road shoulder and pavement on Iron Mountain Circle and Granite Mountain Circle from further degradation, EDOT proposes to construct infiltrating channels and install driveway pipes. These channels will be either rock or grass-lined and will convey runoff into existing sediment traps or channels for treatment prior to runoff leaving the Project site. The driveway pipes will be either solid wall or perforated and will ensure runoff remains within the channel alignment while protecting the driveway surface from water related damage.

At the east corner of Boulder Mountain Drive and Forest Mountain Drive, roadway pavement extends onto private property. This pavement will be removed and the area will be revegetated. The sawcut edge of the existing pavement will redefine the northbound lane limit.

Ponding and sediment accumulates at the intersection of Boulder Mountain Drive and Lake Tahoe Blvd. A drainage inlet with a sump is proposed at each corner which will intercept runoff and trap sediment. Runoff from the drainage inlets will be conveyed via pipe to an existing manhole at the intersection. From the manhole, flow will be conveyed along Lake Tahoe Blvd., beyond the Project boundary.

Alternative 2 proposes fewer improvements than Alternative 1 but more than Alternative 3. To ensure that all improvements are effective and sustainable, EDOT proposes the following additions for the Preferred Alternative for the Boulder Mountain ECP:

1) Substitute rock slope protection for revegetation where site conditions warrant; and

2) Add perforated pipe in conjunction with the infiltrating channels where site conditions warrant.

2.5 Project Benefits

The following Project goals were recommended by the PDT to guide the Project through the planning, design and formulating alternatives phase:

1. Reduce the amount of very fine inorganic sediment by 12%, fine inorganic sediment by 25%, and coarse inorganic sediment by 33% from the urbanized watershed bounded by the Project boundary or to the maximum extent practicable prior to discharging into Lake Tahoe. Very fine sediment is defined as particles with a diameter of 20 microns or less (<20 µm), fine sediment is defined as particles which pass a #200 sieve (<74 µm), and coarse sediment is defined as particles retained on or greater than the #200 sieve (>74 µm).
2. Reduce the 25- year, 1- hour storm surface water volume from the urbanized watershed bounded by the Project boundary by 33% or to the maximum extent practicable prior to discharging into Angora Creek.
3. Reduce the 25- year, 1- hour storm surface water peak flow from the urbanized watershed bounded by the Project boundary by 33% or to the maximum extent practicable prior to discharging into Angora Creek.
4. Complete a comprehensive BMP Retrofit Watershed Master Plan which will include the private BMP development as part of the Project Delivery Process (PDP). Achieve 25% participation with the private homeowners within the limits of the Project.

The Project objectives represent physical conditions that can be measured to assess the success of the Project in achieving the Project goals. The Project will conform to the Preferred Design Approach as detailed in the SWQIC process.

Goal # 1 Objectives

1. Stabilize eroding slopes with County approved slope stabilization (Source Control) BMPs.
2. Stabilize eroding channels/ditches with County approved channel or road treatment source control BMPs.
3. Utilize various County approved sediment trapping BMPs (Sediment Traps, Infiltration, Sedimentation/Infiltration Basins, etc.) to capture sediment from impervious surfaces and eroding areas.
4. Capture de-icing abrasives tracked in from Boulder Mountain to prevent discharge to watercourses.
5. Define and maximize the sweeping frequency within the Right-of-Way (ROW) as funding and resources are available. Current County sweeping frequency is approximately once per year.

Goal # 2 Objectives

1. Utilize County ROW and publicly owned parcels to capture, store, and infiltrate a portion of the 25-year, 1-hour storm water volume, which are at main discharge points within the watersheds.
2. Utilize various County approved infiltration and storage BMPs prior to discharging into Angora Creek.

Goal # 3 Objectives

1. Utilize County ROW and publicly owned parcels to detain, spread, and infiltrate the stormwater within the watershed prior to discharging into Angora Creek without violating drainage laws.
2. Utilize various storm water drainage systems, which increase the time of concentration and reduce the peak discharge to the main discharge points into Angora Creek.

Goal # 4 Objectives

1. Utilize the Tahoe Regional Planning Agency (TRPA) Home Landscaping Guide for evaluating and developing BMP solutions for each driveway within the limits of the Project area.
2. Coordinate the private BMPs design within ROW by designs with the Tahoe Resource Conservation District (TRCD)/National Resources Conservation Service (NRCS).

3.0 ENVIRONMENTAL SETTING AND SITE CHARACTERISITCS

The Project is located in the southern section of the Lake Tahoe Basin in Section 18, Township 12 North, Range 18 East, Mount Diablo Meridian. The Project area is approximately 0.5 miles from Angora Creek and approximately 3 miles south of Lake Tahoe. The total Project area is approximately 86 acres and encompasses County Right-of-Way (ROW) and California Tahoe Conservancy (CTC), United States Forest Service (USFS), South Tahoe Public Utility District (STPUD), Lake Valley Fire District, and privately owned residential lots. It also includes portions of Mountain View Estates Unit No.10 and portions of Unit No.7. Improvements within the Project area include approximately 24 to 30 foot wide paved County roads within 50 and 56 foot wide ROW, unpaved roads, rock slope protection, curb and gutter, dike, storm drain systems, sediment basins, channels, and overhead and underground utilities. Portions of the paved County roads are not centered within the ROW.

Within the Project area approximately 35% of the parcels are publicly owned by the CTC, USFS, Lake Valley Fire District, or the STPUD. The majority of the privately owned parcels have been developed with single-family residences. See Figure 1 for further detail.

Topography: The approximate elevation range of the Project site is from 6,380 to 6,790 feet above mean sea level (NGVD 1929). Project area topography consists of sloping terrain with typical slopes ranging from 0% to 30% with some areas exceeding 35%.

Hydrology: The United States Geological Survey (USGS) has divided the Tahoe Basin into 110 hydrologic basins and intervening areas contributing to outflow from Lake Tahoe. The Project area is located within USGS Basin 73 (Upper Truckee River Watershed), which has a drainage area of 56.5 square miles. The watershed drains into Angora Creek which flows approximately one mile before confluencing with the Upper Truckee River, which then flows approximately five miles north into Lake Tahoe.

Runoff from the Project area is directed toward drainage facilities within the County's ROW and is generally conveyed along the existing road shoulders. EDOT has divided the Project area into seven primary watersheds using topographic maps based on aerial photography developed in 2000 and field surveys. Five of the watersheds drain to the culvert crossing Lake Tahoe Blvd between Sawmill Road and Tahoe Mountain Road; one watershed drains into the storm drain system located at the southern end of Boulder Mountain Drive, and one watershed drains into the storm drain system which starts at the corner of Mule Deer Circle and Lake Tahoe Blvd.

Groundwater/Wetlands: Jurisdictional waters of the U.S. are classified into multiple types based on topography, edaphics (soils), vegetation, and hydrologic regime. Primarily, the U.S. Army Corps of Engineers establishes two distinctions: Wetland and non-wetland waters of the U.S. Non-wetland waters are commonly referred to as other waters.

In September of 2010, EDOT's consultant, Nichols Consulting Engineers, Chtd. (NCE) performed a review of published documents and inventory and conducted a field inspection to determine the presence of wetlands within the Project boundary. A description of each feature type delineated within the survey area is provided. Both jurisdictional and non-jurisdictional wetlands were identified within the Project area. The results of their study will be submitted to the U.S. Army Corps of Engineers for a permit, if needed.

Geology/Soils: A preliminary review of regional geology within the Project area reveals this geomorphic unit has a moderate slope comprised of two main geologic map units outlined below.

Tahoe Glacial Till (Qta)

This soil type makes up approximately 80% of the Project site. It consists of unconsolidated bouldery till with a distinct yellow-brown weathered matrix. The deposits are preserved as larger moraines with more rounded and broader crests. Locally may include outwash deposits.

Colluvium - Holocene (Qc)

This soil type is found within the northwestern portion of the Project area and makes up approximately 20% of the Project site. Unsorted, poorly consolidated granitic colluviums, decomposed granite, soil, matrix supported debris flow material, sand and cobble to boulder gravel.

Land Use: The majority of the Project boundary lies within the TRPA Plan Area Statement (PAS) 131 – Angora Highlands, with a small portion falling within PAS 132 – Mountain View. For both PAS 131 and 132, the land use classification is residential, the management strategy is mitigation, and the special designation is none.

Within PAS 131 and 132, the existing primary use is residential at a density of one single family dwelling per parcel. For PAS 131, the planning area is approximately 30 percent built out and is currently zoned low density residential and is generally forested. For PAS 132, the planning area is approximately 40 percent built out and is currently zoned low density residential and is generally forested. In 2007, the Angora fire burned much of the Project area and only small patches of intact forest remain. Most undeveloped areas have since been revegetated.

Cultural Resources: A cultural resource study, which included a literature search and an archaeological survey/inventory of the Project survey area, was completed on July 5, 2010. Fourteen previous cultural resources studies have been conducted in the vicinity of the Project area, four of which included portions of the Area of Potential Effects (APE). No cultural resources have been previously recorded within the APE and none were identified within the APE during the pedestrian survey. The APE is considered to have a low sensitivity for the discovery of prehistoric, ethno historic, or historic cultural material, or subsurface deposits. Because of this, no additional cultural resources work for this Project is recommended. However, in the event that cultural resources are discovered during Project implementation, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action.

Botanical Resources: Botanical surveys occurred within the Project survey area on June 30 and July 1, 2010 and no special status botanical species were observed during the surveys. A noxious weed survey was also conducted within the Project survey area on June 30, 2010 and July 1, 2010. The survey identified five noxious weed species within the Project area: cheatgrass (*Bromus tectorum*), bull thistle (*Cirsium vulgare*), scotch broom (*Cytisus scoparius*), oxeye daisy (*leucantheumum vulgare*) and wolly mullein (*Verbascum Thapsus*). The survey also identified one invasive species within the Project area: sweetclover (*Melilotus* sp.). A Noxious Weed Mitigation/Eradication Protocol will be implemented by the County as part of the Proposed Project which will help decrease habitat vulnerability to or below pre-construction levels. The Protocol includes pre-construction elements, such as treating existing noxious weed populations identified in the Project area, as well as during- and post-construction elements. Additionally, the County will specify weed-free seed mix and require all construction equipment be certified steam cleaned prior to accessing the site.

Vegetation types found in and/or adjacent to the Project area are typical of those found in the Lake Tahoe Basin. The project area is composed primarily of jeffrey pine (covering nearly 100% of the Project area), while adjacent vegetation communities include lodgepole pine, mixed conifer-fir, perennial grasses and forbs, upper montane mixed chaparral, and basin sagebrush alliances. However, the 2007 Angora fire altered the forest density and ground vegetation cover for a large section of the area. An assessment of habitat types is described in depth in Appendix C.

Wildlife Resources: Field surveys and assessments were conducted within the Project survey area for special wildlife species on June 30, 2010 and July 1, 2010. The biological assessment surveys observed no federal or state-listed candidate, or proposed wildlife species in the Project study area. However, potential habitat conditions do exist for one special-status species, the Northern Goshawk, although none were noted during the survey. An assessment of habitat types is described in depth in Appendix C.

Greenhouse Gas Emissions: Climate change refers to long-term fluctuations in temperature, precipitation, wind, and other elements of Earth's climate system. Natural processes such as solar-irradiance variations, variations in Earth's orbital parameters, and volcanic activity can produce variations in climate. The climate system can also be influenced by changes in the concentration of various gases in the atmosphere, which affect Earth's absorption of radiation.

State law defines greenhouse gases (GHG) to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, Section 38505(g)). According to the Governor's Office of Planning and Research (OPR), the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide.

According to California Air Resources Board (CARB) emission inventory estimates, California emitted approximately 480 million metric tons of carbon dioxide equivalents (CO2eq) in 2004. The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO2eq) was as follows:

- Carbon dioxide (CO2) accounted for 83.3 percent;

- Methane (CH4) accounted for 6.4 percent;
- Nitrous oxide (N2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF6) accounted for 3.5 percent.

CARB estimates that transportation was the source of approximately 38 percent of California's GHG emissions in 2004, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions are residential and commercial activities at 9 percent, agriculture at 6 percent, high global warming potential (GWP) gases accounting for 3 percent, and recycling and waste at 1 percent.

Regulatory Setting

Global Warming Solutions (AB 32)

The Global Warming Solutions Act of 2006 (AB 32) codifies California's goal of reducing statewide emissions of GHGs to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased-in starting in 2012 to achieve maximum technologically feasible and cost-effective GHG reductions. In order to effectively implement the cap, AB 32 directs CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor GHG emissions.

Executive Order S-3-05

On June 1, 2005 Governor Arnold Schwarzenegger signed S-3-05 (Order) which established GHG emission reduction targets as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 97

As directed by Senate Bill 97 (SB 97), the Natural Resources Agency adopted Amendments to the CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

Senate Bill 375

California Senate Bill 375 (SB 375) aims to reduce GHG emissions by curbing sprawl because the largest sources of GHG emissions in California are passenger vehicles and light trucks. SB 375 provides emission reduction goals for which regions can plan, integrates disjointed planning activities, and provides incentives for local governments and developers to follow new conscientiously-planned growth patterns.

Senate Bill 1368

California Senate Bill 1368 (SB 1368) adds sections 8340 and 8341 to the Public Utilities Code (effective January 1, 2007) with the intent "to prevent long-term investments in power plants with GHG in excess of those produced by a combined-cycle natural gas power plant with the aim of "reducing emissions of greenhouse gases from the state's electricity consumption, not just the state's electricity production." The bill provides a mechanism for reducing the greenhouse gas emissions of electricity providers, both in-state and out-of-state, thereby assisting CARB in meeting its mandate under AB 32, the Global Warming Solutions Act of 2006.

Significance Criteria

CARB has proposed that different GHG thresholds of significance may apply to projects in different sectors, e.g., industrial, commercial, residential. Two primary reasons that sector-specific thresholds are appropriate are: 1) some sectors contribute more substantially to the problem, and therefore should have a greater obligation for emissions reductions, and, 2) there are differing levels of emissions reductions expected from different sectors in order to meet California's objectives under AB 32. Different types of thresholds – quantitative, qualitative, and performance-based – can apply to different sectors under the premise that the sectors can and must be treated

separately given the state of the science and data. The sector-specific approach is consistent with CARB's Proposed Scoping Plan.

Working with CARB in 2008, the OPR drafted amendments to the CEQA Guidelines for GHG emissions as required by SB 97. In January 2009, OPR held workshops in Los Angeles and Sacramento to present the preliminary draft amendments and obtain input from the public. The workshops included a presentation by OPR and the Resources Agency staff, an overview of the preliminary draft CEQA Guideline amendments, and the process for adopting the regulations by 2010. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines. As directed by SB 97, the Natural Resources Agency adopted Amendments to the CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010.

CEQA requires lead agencies to identify project GHG emissions impacts and their "significance," but is not clear what constitutes a "significant" impact. GHG impacts are inherently cumulative, and since no single project could cause global climate change, the CEQA test is if impacts are "cumulatively considerable." Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a Climate Action Plan (CAP), etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. "Tiering" from such a programmatic-level document is the preferred method to address GHG emissions. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project's GHG emissions must be addressed at the project-level.

The El Dorado County Air Quality Management District (EDCAQMD) has established thresholds of significance for criteria air pollutants (Guide to Air Quality Assessment (February 2002) ("CEQA Guide"))[1]. However, the EDCAQMD has not yet adopted GHG emissions thresholds for land use development projects. In the absence of County adopted thresholds, EDCAQMD recommends using the thresholds adopted by other Counties that were found consistent with the goals of AB 32. Until the County adopts a CAP consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, the County will follow an interim approach to evaluate GHG emissions utilizing significance criteria adopted by the San Luis Obispo Air Pollution Control District (SLOAPCD) to determine the significance of GHG emissions. The County believes that since climate change is a global problem and the location of the individual sources of GHG emissions is somewhat irrelevant, it's appropriate to use thresholds established by other jurisdictions as a basis for impact significance determinations. Projects exceeding these thresholds would have a potentially significant impact and be required to mitigate those impacts to a less than significant level.

The County chose SLOAPCD's thresholds because they are comprehensive and have not been challenged. SLOAPCD's thresholds are very similar to the Bay Area Air Quality Management District (BAAQMD) thresholds. However, BAAQMD's GHG thresholds are under legal challenge because BAAQMD failed to comply with CEQA when adopting the thresholds. Additionally, SLOAPCD developed a screening table using CalEEMod which allows quick assessment of projects to "screen out" those below the thresholds as their impacts would be less than significant.

The thresholds are summarized below:

Significance Determination Thresholds	
GHG Emission Source Category	Operational Emissions
Non-stationary Sources	1,150 MTCO2e/yr OR 4.9 MT CO2e/SP/yr
Stationary Sources	10,000 MTCO2e/yr

SP = service population, which is resident population plus employee population of the project

[1] EDCAQMD CEQA Guide: http://edcgov.us/Government/AirQualityManagement/Guide_to_Air_Quality_Assessment.aspx

Impacts

Construction Emissions

Project construction would generate temporary and one-time GHG emissions mainly from diesel-powered construction equipment and on-road trucks, with a small amount from workers' personal vehicles during the construction of the Project. Greenhouse gases emitted during the combustion of diesel fuel in off-road construction equipment and on-road vehicles would consist mainly of carbon dioxide, along with small amounts of methane and nitrous oxide during the construction period. Construction emissions would be intermittent, and short-term, during one summer construction season. Construction emissions would permanently cease at the end of the Project. Over the long-term, these temporary emissions would be partially offset or mitigated by the establishment of native vegetation at designated areas. The revegetation work, including shrubs, forbs and grasses would be maintained over the life of the Project, up-taking carbon dioxide for decades.

There currently is only limited federal, state, or local regulatory guidance for determining whether a project advances or hinders California's GHG reduction goals and no promulgated thresholds of significance for GHG impacts have been established. For purposes of this analysis, per the amendments to the CEQA Guidelines, an impact could be considered significant if the Project would:

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

- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

During construction, the Project would temporarily cause direct GHG emissions from the combustion of fossil fuels used to run construction equipment and vehicles, both onsite and offsite. These GHG emissions would be temporary and one-time emissions during the construction of the Project only. Over its lifetime, the Project would directly and indirectly cause negligible GHG emissions from occasional maintenance and personal vehicle use. Therefore, this analysis focuses on construction impacts estimated using the County's past project implementation database and the U.S. Environmental Protection Agency (USEPA) GHG emission factors for diesel fuel and gasoline combustion in construction equipment. The County has reviewed past construction project logs for projects equivalent in size and scope to the proposed Project to determine the typical number and type of vehicles that are actively working to construct the Project each day. Based on this analysis, the County has formulated the following assumptions:

- Fifteen workers per day, driving five vehicles to work an average of 40 miles roundtrip per day
- Vehicles average 20 miles per gallon
- Twelve pieces of construction machinery per day
- Crews work eight hours per day with machinery running half that time (4 hours)
- Machinery burns an average of two gallons of diesel fuel per hour
- Diesel fuel contributes approximately 22.5 lbs CO_2/gallon
- Gasoline contributes approximately 20 lbs CO_2/gallon
- The Project will be completed in 30 working days

Based on these assumptions, the Proposed Project would emit approximately 32 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 480,000,000 metric tons discussed above (0.00000007 percent). The estimated amount is also significantly less than the San Luis Obispo Air Pollution Control District's (SLOAPCD) significance threshold of 1,150 metric tons of CO_2 equivalents. Because of this and the fact that direct onsite and offsite GHG emissions would terminate following completion construction work, the Project will have a less than significant impact on GHG emissions.

4.0 PUBLIC INPUT AND PDT COORDINATION

The public involvement process for the Project included two public meetings, which were held on April 12, 2012 and July 19, 2012. The first public meeting was a field meeting with residents that could be potentially affected by

the Project. EDOT provided the public with information on the existing conditions, existing problem areas and draft conceptual alternatives. EDOT also asked the public to express their questions and concerns related to the Project and its potential environmental impacts. The second public meeting focused on the Project alternatives. Public notices for the second meeting were mailed to all property owners within a 300 foot radius of the Project boundary. EDOT received feedback from the public on the Project alternatives that were presented, which helped select the Proposed Project.

EDOT met with the PDT during the Project development process to identify problems and to develop and refine Project alternatives. The PDT consists of resource agency representatives in the Lake Tahoe Basin, including, but not limited to, the Tahoe Regional Planning Agency, USFS-Lake Tahoe Basin Management Unit, California Tahoe Conservancy, Tahoe Resource Conservation District, and Lahontan Regional Water Quality Control Board. The initial PDT meeting on the Project was held in March 2009. At this meeting the PDT reviewed and endorsed the Project. After the development of the Project goals and objectives, a Draft Feasibility Report was produced which was provided to the PDT and the public in June 2012. EDOT then produced a Final Feasibility Report based on comments received from the PDT and public. These documents were provided to the PDT in August 2012. A Final Preferred Alternative Report was then developed based on those recommendations and was provided to the PDT and public in September 2012.

5.0 RIGHT OF WAY REQUIREMENTS

EDOT made every effort to locate proposed improvements within the County right-of-way and as a result no public or private easements are required to construct the Proposed Project.

6.0 COVERAGE AND PERMIT ISSUES

Clean Water Act Section 404

The fieldwork was conducted for the Delineation of Waters of the U.S., including wetlands, as defined by Section 404 of the Clean Water Act. That fieldwork determined that jurisdictional waters and wetlands are present within the Project area. Thus, a wetland delineation report will be prepared and delivered to the U.S. Army Corps of Engineers that includes maps identifying the type, location, and size of all Waters of the U.S. within the Project boundary. A Section 404 Permit will be obtained prior to Project construction, if necessary.

Clean Water Act Section 401

If the Proposed Project involves the discharge to surface waters, which includes Waters of the U.S., Waters of the State, and all other surface waters, a 401 Water Quality Certification will be required from the Lahontan Regional Water Quality Control Board (RWQCB). A 401 Water Quality Certification application will be prepared and submitted to the RWQCB based on the final Project design and its potential to discharge to surface waters.

Lahontan RWQCB NPDES Permit and Basin Plan

Any disturbance to a Stream Environment Zone (SEZ) requires approval from the Lahontan RWQCB. If one acre or more of overall disturbance is slated to occur during construction, which is not currently anticipated, compliance with the NPDES General Construction Permit will be required.

Tahoe Regional Planning Agency General Permit and Stream Environment Zones (SEZ)

A TRPA General EIP Permit will be obtained prior to construction. A Land Capability Verification has been completed by the TRPA. The Proposed Project requires disturbance within sensitive Land Capability District 1b lands (SEZ), and thus EDOT will work with TRPA to ensure compliance with TRPA throughout the permitting process.

7.0 MITIGATION AND MONITORING

Mitigation measures are described in the attached Mitigation Monitoring and Reporting Program (Appendix B). EDOT staff and/or their contractor will conduct on-site monitoring to ensure that mitigation measures are implemented as proposed. A full time construction inspector provided by EDOT and/or contractor will monitor proposed mitigation measures for potential temporary impacts associated with construction. The inspector will

ensure that the contractor strictly adheres to all temporary erosion control requirements and other environmental protection requirements. In addition to County inspections, regulatory agencies will review Project plans and specifications to ensure compliance with local, state, and federal requirements. Any additional mitigation measures required by regulatory agencies will be monitored in the same manner. Throughout the construction of the Project, the agencies will be invited to weekly "tailgate" meetings and will conduct periodic visits to the Project site to enforce the BMPs and ensure compliance with all other mitigation measures.

The maintenance and monitoring of the Project improvements will continue for 20 years after construction completion. Revegetation monitoring will continue for a minimum of two years following construction. Plant establishment will include irrigation and replanting, if necessary. EDOT will inspect all Project improvements during the spring and fall of each year during the twenty-year maintenance period. EDOT engineering staff will direct maintenance based on results of the inspections. Photographs will be taken before and after construction for a period of two years, and following significant storm events to monitor Project improvement performance.

8.0 REFERENCES

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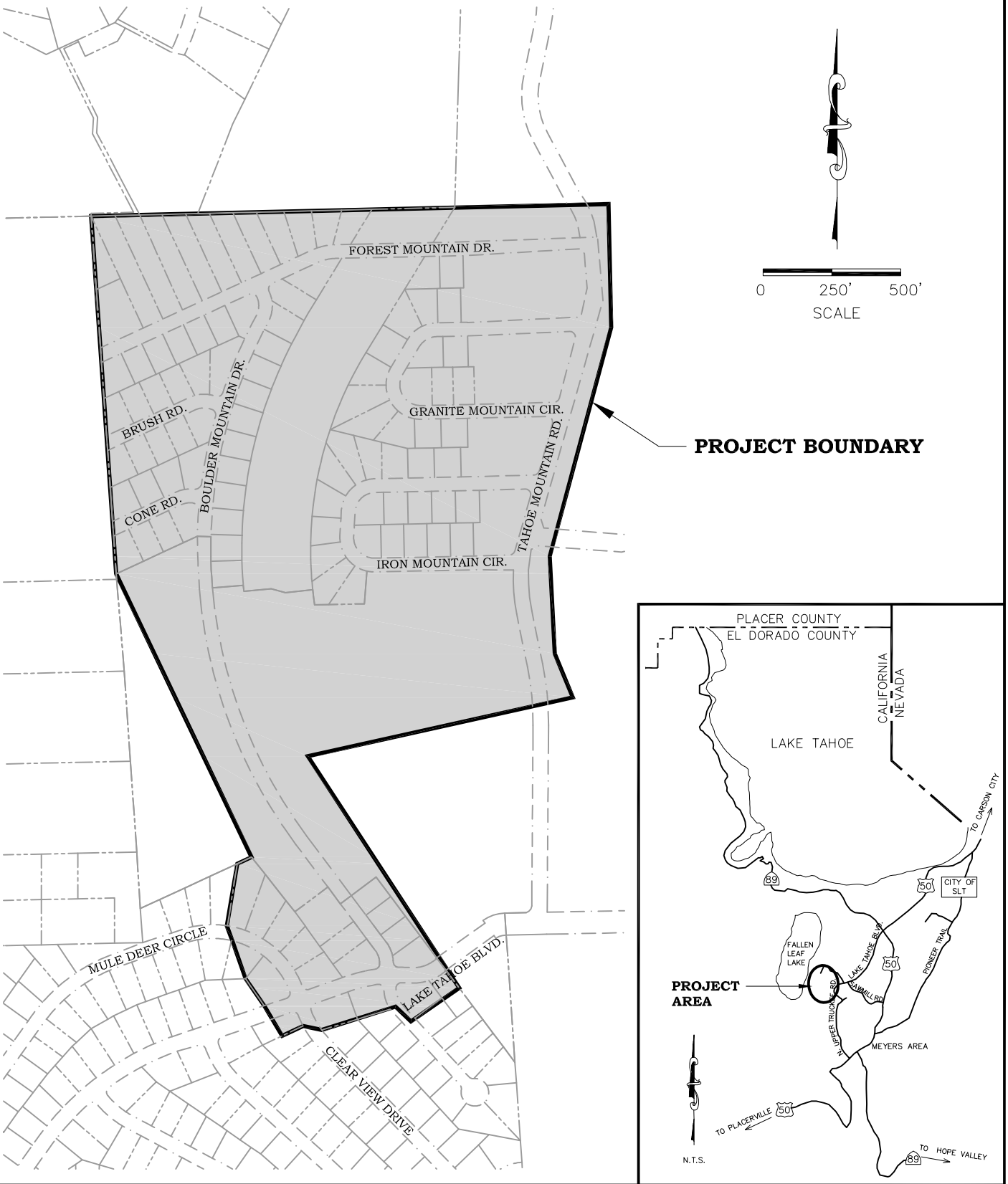
FIGURES



EL DORADO COUNTY
SOUTH LAKE TAHOE OFFICE

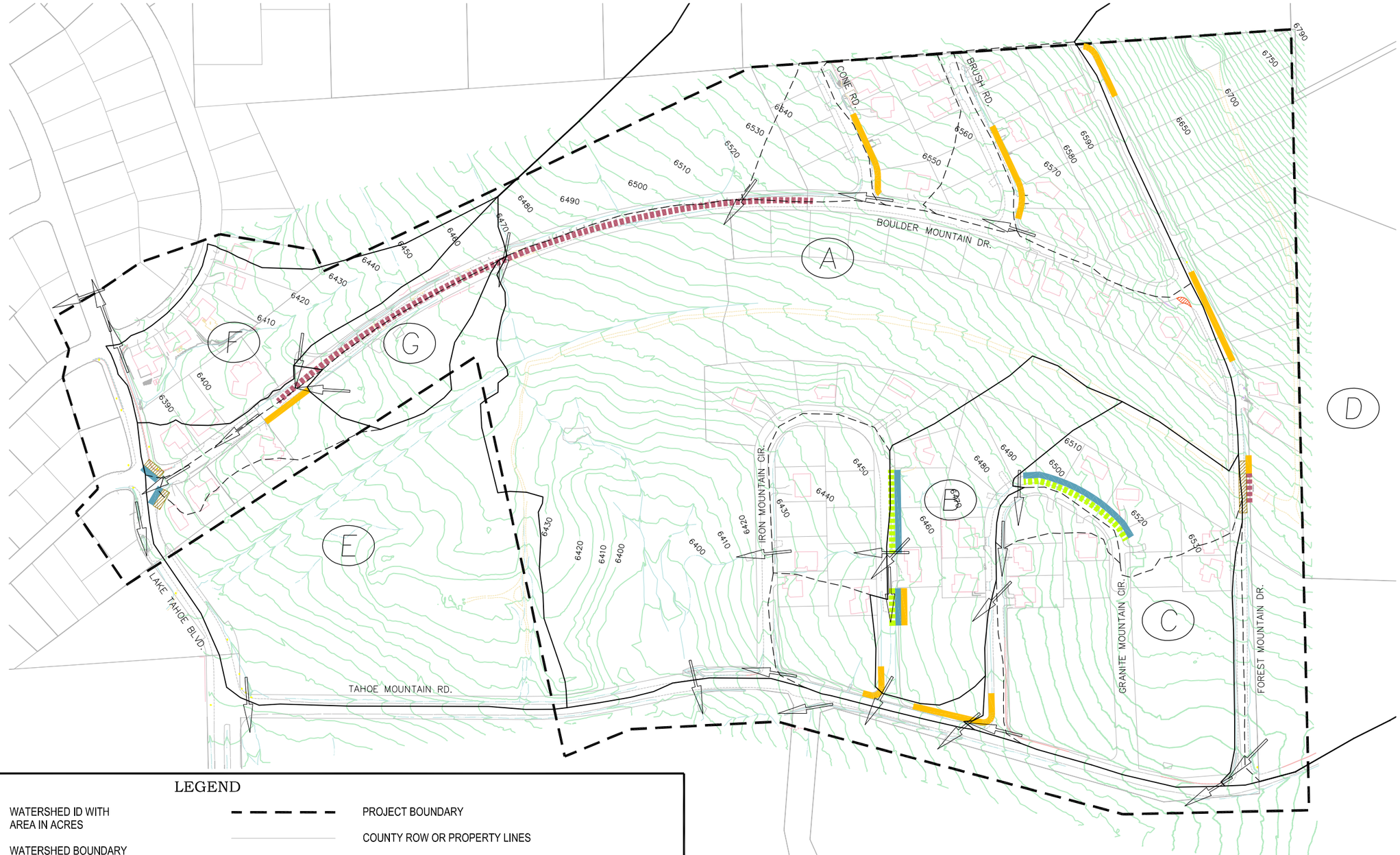
EL DORADO COUNTY DOT DEPT. OF TRANSPORTATION

BOULDER MOUNTAIN EROSION CONTROL PROJECT

LOCATION MAP

FIGURE 1

DATE:	PROJECT NO.:	BY:
09/2012	95153	ALD



LEGEND

G — WATERSHED ID WITH AREA IN ACRES	PROJECT BOUNDARY
WATERSHED BOUNDARY	COUNTY ROW OR PROPERTY LINES
SUB-WATERSHED BOUNDARY	ERODING ROAD OR SHOULDER
EXISTING PIPE AND FLOW DIRECTION (WITHIN PROJECT BOUNDARY)	UNSTABLE SHOULDER
6750 — CONTOUR WITH ELEVATION	ERODING SLOPE
PONDING	SEDIMENT ACCUMULATION
	EXCESS AC PAVEMENT

0' 125' 250'
SCALE

EL DORADO COUNTY
SOUTH LAKE TAHOE OFFICE

BOULDER MOUNTAIN EROSION CONTROL PROJECT
EXISTING CONDITIONS

FIGURE 2

DATE: 09/2012 | PROJECT NO.: 95153 | BY: ALD

PROJECT BOUNDARY

CONE RD.

BRUSH RD.

BOULDER MOUNTAIN DR.

IRON MOUNTAIN CIR.

GRANITE MOUNTAIN CIR.

FOREST MOUNTAIN DR.

LAKE TAHOE BLVD.

TAHOE MOUNTAIN RD.

LEGEND

- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED REMOVE AND/OR ADD AC
- PROPOSED ROCK CHECK
- PROPOSED PERFORATED PIPE
- PROPOSED REVEGETATION
- PROPOSED ROCK SLOPE PROTECTION
- PROPOSED ROCK DISSIPATOR
- PROPOSED FLARED END SECTION

0' 125' 250'

SCALE

EL DORADO COUNTY
SOUTH LAKE TAHOE OFFICE

EL DORADO COUNTY DOT DEPT. OF TRANSPORTATION

BOULDER MOUNTAIN
EROSION CONTROL PROJECT
ALTERNATIVE 1

FIGURE 3

DATE: 09/2012 | PROJECT NO.: 95153 | BY: ALD

LEGEND

PROPOSED AGGREGATE BASE

PROPOSED REVEGETATION

0' 125' 250'

SCALE

EL DORADO COUNTY

SOUTH LAKE TAHOE OFFICE

EL DORADO COUNTY DOT DEPT. OF TRANSPORTATION

BOULDER MOUNTAIN
EROSION CONTROL PROJECT
ALTERNATIVE 3

DATE: 09/2012 | PROJECT NO.: 95153 | BY: ALD

FIGURE 4

PROJECT BOUNDARY

CONE RD.

BRUSH RD.

BOULDER MOUNTAIN DR.

IRON MOUNTAIN CIR.

GRANITE MOUNTAIN CIR.

FOREST MOUNTAIN DR.

LAKE TAHOE BLVD.

TAHOE MOUNTAIN RD.

LEGEND

- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED REMOVE AND/OR ADD AC
- PROPOSED PERFORATED PIPE
- PROPOSED INFILTRATING CHANNEL
- PROPOSED REVEGETATION
- PROPOSED ROCK DISSIPATOR
- PROPOSED FLARED END SECTION

0' 125' 250'

SCALE

EL DORADO COUNTY

SOUTH LAKE TAHOE OFFICE

BOULDER MOUNTAIN EROSION CONTROL PROJECT

PREFERRED ALTERNATIVE

ALTERNATIVE 2

FIGURE 5

DATE: 09/2012 | PROJECT NO.: 95153 | BY: ALD

APPENDIX A:
CEQA CHECKLIST

COUNTY OF EL DORADO **DEPARTMENT OF TRANSPORTATION**

TAHOE ENGINEERING
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KIMBELY A. KERR
Interim Director of Transportation
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Fax: (530) 626-0387

CEQA Checklist

Title: Boulder Mountain Erosion Control Project (JN 95153)	
Description: Construction of erosion control and water quality improvement facilities	
Location: The Project area is located in South Lake Tahoe, California within the Lake Tahoe Basin. The Project is bounded by Lake Tahoe Boulevard and Mule Deer Circle to the south, Tahoe Mountain Road to the east, and Forest Mountain Road to the north (Figure 1).	
Owner/Applicant: County of El Dorado Department of Transportation – Tahoe Engineering Division	
Lead Agency: County of El Dorado Department of Transportation – Tahoe Engineering Division	
County Contact: Brendan Ferry, Senior Environmental Planner	**Phone:** 530-573-7900
Address: 924 B Emerald Bay Road, South Lake Tahoe, CA 96150	

The CEQA Checklist recommended by the California Environmental Quality Act (CEQA) Guidelines is used to determine potential impacts of the Proposed Project on the physical environment. The Checklist provides a list of questions concerning a comprehensive array of environmental issues potentially affected by the Project. An evaluation of impacts for each resource follows:

a) A brief explanation is required for all answers except 'No Impact' answers that are adequately supported by the information a lead agency following each question. A 'No Impact' answer is adequately supported if the referenced information shows 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).

b) All answers must account for the whole action involved, including off-site and on-site impacts. The answer must also consider cumulative and project-level impacts, indirect and direct impacts and construction and operational impacts.

c) Once the lead agency has determined that a particular physical impact may occur, the Checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. A potentially significant impact is appropriate if there is substantial evidence that an effect may be significant. If there are one or more potentially significant impacts when the determination is made, an EIR is required.

d) Mitigated Negative Declaration - Less than Significant with Mitigation: This applies when mitigation measures have been incorporated into a project, which reduced an effect from a 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 Section XVII and earlier analyses may be cross-referenced).

e) Earlier analyses may be used where, pursuant to the tiering, programmatic 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:

   i. **Earlier Analysis Used.** Identify and state where they are available for review.

   ii. **Impacts Adequately Addressed.** Identify which effects from the Checklist were within the scope of an earlier document pursuant to applicable legal standards, and state whether such effects were adequately analyzed and addressed by mitigation measures.

iii. **Mitigation Measures.** For effects that are less than significant with mitigation measures, describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they addressed site-specific conditions for the project.

f) Lead agencies are encouraged to incorporate references into the checklist to provide 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.

g) Supporting Information Sources: A source list should be attached. Individuals who were contacted should be cited in the discussion.

h) 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.

i) The explanation of each issue should identify:

i. The significance criteria or threshold, if any, used to evaluate each question.

ii. The mitigation measure identified, if any, to reduce the impact to less than significant.

I. AESTHETICS – Would the project:

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

Item I-B Discussion: The Proposed Project will remove a small number of trees; however the Project area is not along a scenic highway. No rock outcroppings or historic buildings will be damaged during construction of the Proposed Project; therefore, the Project will have a less than significant impact.

Item I-C Discussion: The Proposed Project will implement new erosion control and water quality protection measures in the subdivision. Care will be taken in the design and construction of the improvements to integrate them into the natural surroundings. The Proposed Project will restore degraded channels and bare soil areas within the County right-of-way and specified parcels. These erosion control and water quality improvement measures will increase the visual character and quality of the site. While construction activities may affect the scenic resources during construction, these impacts will be temporary. The Proposed Project will not substantially degrade the existing visual character or quality of the site or its surroundings; therefore, the Project will have a less than significant 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) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program 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?	☐	☐	☐	☒

Category II Discussion: The Project area does not contain any lands used for agriculture, nor do the plan area statements that encompass the Project area allow for agriculture. Additionally, the Project will not remove any trees, nor will it degrade the surrounding forest land. Therefore, the Proposed Project will have no impact on agriculture or forest resources.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

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

Item III-B Discussion: The Proposed Project will involve excavation and grading. The El Dorado County Air Quality Management District (EDCAQMD) Rule 223 Fugitive Dust General Requirements states that "visible emissions shall not exceed 20% opacity at point-of-origin and shall not extend more than 50 feet from point-of-origin, or cross the Project boundary line, whichever is less." The contractor will comply with the Air Quality Plan and EDCAQMD regulations by implementing air quality Best Management Practices (BMPs) from the TRPA Handbook of Best Management Practices and practices outlined in the EDCAQMD Rule 223 to address fugitive dust. Compliance with the TRPA Air Quality Plan will attain TRPA threshold standards and, therefore, federal and state air quality standards.

The Project will have no long term impacts to air quality. Compliance with EDCAQMD and TRPA regulations through the permitting process will ensure that the Project will not conflict with or obstruct implementation of the air quality plans. Additionally, the Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Finally, the Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment. With the implementation of the

mitigation measures outlined below in *Item III-B Mitigation Measures*, the Proposed Project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation; therefore, the Project will have a less than significant impact.

Item III-B Mitigation Measures:

Mitigation Measure AQ-1: The construction contractor shall implement air quality Best Management Practices from the TRPA Code of Ordinances and Handbook of Best Management Practices.

Mitigation Measures AQ-2: The construction contractor shall water exposed soil twice daily, or as needed, to control wind borne dust. All haul/dump truckloads shall be covered securely.

Mitigation Measure AQ-3: The contractor shall sweep the Project site a minimum of once daily to remove all dirt and mud that has been generated from or deposited on roadways by construction equipment going to and from the construction site.

Mitigation Measure AQ-4: On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.

Mitigation Measure AQ-5: Construction activities shall comply with EDCAQMD Rule 223 - Fugitive Dust, so that emissions do not exceed hourly levels. The contractor will use approved BMPs as outlined in the TRPA Handbook of Best Management Practices and the EDCAQMD Rule 223 to address fugitive dust. Dust mitigation measures and dust control BMPs will include, but are not limited to, stabilizing unpaved areas subject to vehicular traffic, stabilizing storage piles and disturbed areas, suppressing dust by watering disturbed areas, cleaning all construction vehicles leaving the site, mulching bare soil areas, and ceasing grading and earth moving activities when wind speeds are high enough to result in dust emissions crossing the Project boundary.

Mitigation Measure AQ-6: Construction equipment idling shall be restricted to 5 minutes when not in use.

Mitigation Measure AQ-7: The construction contractor shall post a publicly visible sign on the Project site during construction operations that specifies the telephone number and person/agency to contact for complaints and/or inquiries on dust generation and other air quality problems resulting from Project construction.

Item III-C Discussion: Construction activities may impact air quality, but the impacts will be well below established significance levels since the activity is temporary and there will not be any long-term impacts. The Proposed Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment; therefore, the Project will have a less than significant impact.

Item III-D Discussion: Construction activities may impact air quality, but the impacts will be well below established significance levels since the activity is temporary and there will not be any long-term impacts. The Proposed Project will not expose sensitive receptors to substantial pollutant concentrations; therefore, the Project will have a less than significant impact.

Item III-E Discussion: Construction activities may impact air quality, but the impacts will be well below established significance levels since the activity is temporary and there will not be any long-term impacts. The Proposed Project will not create objectionable odors affecting a substantial number of people; therefore, the Project will have a less than significant impact.

IV. BIOLOGICAL RESOURCES – Would the project:

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

Item IV-A Discussion: A *Wildlife Biological Assessment and Biological Evaluation (BABE)* was performed for the Proposed Project. The biological assessment surveys observed no federal or state-listed candidate, or proposed wildlife species in the Project study area. However, potential habitat conditions do exist for one special-status species, the Northern Goshawk, although none were noted during the survey. This determination was based on a thorough data review and a survey of the Project area. The primary purpose of the field survey was to identify and determine the occurrence of, or the suitability of, habitat for special status wildlife species within the Project site.

A *Botanical Biological Assessment and Biological Evaluation (BABE)* was also performed for the Proposed Project. Potential or modeled habitat was identified for a total of 12 special status species in the Project area; however, none of these species were found during surveys.

A *Noxious Weed Risk Assessment (NWRA)* was performed for the Proposed Project. The surveys indicated that five noxious weed species were known to exist within the Project area. These species include cheatgrass (*Bromus tectorum*), bull thistle (*Cirsium vulgare*), scotch broom (*Cytisus scoparius*), oxeye daisy (*leucantheumum vulgare*) and wolly mullein (*Verbascum Thapsus*). The survey also identified one invasive species within the Project area - sweetclover (*Melilotus* sp.). Eleven occurrences of cheatgrass, one occurrence of bull thistle, one occurrence of oxeye daisy, one occurrence of scotch broom, six occurrences of melilotus and five occurrences of wolly mullein were documented. These locations are documented in the NWRA.

With the implementation of the mitigation measures outlined below in *Item IV-A Mitigation Measures*, the Proposed Project will not 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 & Game (CDFG) or U.S. Fish & Wildlife Service (USFWS); therefore, the Project will have a less than significant impact.

Item IV-A Mitigation Measures:

Mitigation Measure B-1: Prior to construction, the County will confirm if any new special status species have been identified by the USFS-LTBMU or the CA Fish & Wildlife Service (via the California Natural Diversity Database - *CNDDB*) within, or immediately adjacent to, the Project area. If new activity or occurrences have been identified, appropriate limited operating periods (LOP) will be observed.

Mitigation Measure B-2: If special status plant species are found prior to or during construction, these populations will be identified and protected with appropriate measures per TRPA and the USFS-LTBMU.

Mitigation Measure B-3: The County will implement and require the contractor to adhere to a Noxious Weed Mitigation Plan (Plan) to decrease habitat vulnerability to or below pre-construction levels. The Plan includes pre-construction elements such as treatment methodologies for existing noxious weed populations identified in the Project area, as well as operating procedures for both during and post-construction. Recommended BMPs will include, but are not limited to: hand removal of existing weeds prior to going to seed, equipment cleaning prior to use, area of disturbance minimization, disturbed ground stabilization upon completion of construction with mulch or other means, certified weed-free mulch and other materials, and disturbed areas revegetation with native plants.

Item IV-B Discussion: A Land Capability Verification, which delineated sensitive Class 1B (stream environment zone (SEZ)) lands within the Project area, was completed and certified by the TRPA. The Project has been designed to avoid SEZs in all possible instances; however, in order to construct some key elements of the Proposed Project, as determined by the PDT, some improvements will encroach slightly into SEZs. This is primarily because these areas are depressed, where stormwater flows are currently directed. Additionally, fieldwork has been completed to delineate Waters of the U.S., including wetlands. Using the data, a wetland delineation report will be prepared and submitted as part of the Section 404 permit application to the U.S. Army Corps of Engineers (USACOE) to make a formal determination. By implementing the mitigation measures outlined below in *Item IV-B Mitigation Measures,* the Proposed Project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; therefore, the Project will have a less than significant impact.

Item IV-B Mitigation Measures:

Mitigation Measure B-4: Construction limit fencing, per TRPA's Code of Ordinances and the Handbook of BMPs, shall be designed and implemented by the contractor to limit SEZ disturbance to an area not to exceed five feet outside of the disturbance zone of the water quality and erosion control improvements. All disturbed areas will be stabilized and revegetated with compost, native seed and mulch. All revegetated areas will be irrigated for a minimum of two years following construction. Construction measures will include, but are not limited to, the use of hand or low impact equipment and the implementation of temporary BMPs such as filter fencing, coir logs, gravel bags, tree protection, and construction limit fencing to minimize disturbance. Although groundwater is not expected to be encountered during construction, if groundwater is encountered and the excavated area requires dewatering to complete the work, TRPA and the Lahontan Regional Water Quality Control Board shall be notified immediately to determine the appropriate course of action. The Storm Water Pollution Prevention Plan (SWPPP) for the Project will include a Dewatering Contingency Plan (Item VI-B Mitigation Measures) that the contractor shall follow.

Mitigation Measure B-5: Stormwater facilities will be designed per TRPA and Lahontan to improve the water quality of stormwater entering SEZs, as compared to the pre-project conditions. The erosion control aspects of the Project will enhance hydrology, soils, and vegetation.

Mitigation Measure B-6: The Project was designed around the findings of the wetland delineation report to avoid or minimize impacts to wetlands and/or other WOUS. The County will also obtain a 404 Permit and a 401 Water Quality Certification, if necessary, and will implement the required mitigation measures. The County will obtain a TRPA EIP Project Permit and will implement the required mitigation measures. Up to 5,036 square feet of SEZ could be disturbed by implementing the Proposed Project. All of the potentially impacted SEZ is along the road shoulder and has been previously disturbed. EDOT will utilize SEZ Mitigation Credits that are stored from pervious County restoration Projects, primarily the Angora SEZ Enhancement Project, in order to mitigate the new SEZ disturbance and comply with any permit requirements.

Item IV-C Discussion: A Land Capability Verification, which delineated sensitive Class 1B (stream environment zone (SEZ)) lands within the Project area, was completed and certified by the TRPA. The Project has been designed to avoid SEZs in all possible instances; however, in order to construct some key elements of the Proposed Project, as determined by the PDT, some improvements will encroach into SEZs. This is primarily because these areas are depressed, where stormwater flows are currently directed. Additionally, fieldwork has been completed to delineate Waters of the U.S., including wetlands. Using the data, a wetland delineation report will be prepared and submitted as part of the Section 404 permit application to the U.S. Army Corps of Engineers (USACOE) to make a formal determination. With the implementation of the mitigation measures outlined above in *Item IV-B Mitigation Measures* and below in *Item IV-C Mitigation Measures,* the Proposed Project will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act; therefore, the project will have a less than significant impact.

Item IV-C Mitigation Measures:

Mitigation Measure B-7: Should any construction work be required in or adjacent to wetlands, it shall be conducted from existing pavement and/or confined to the smallest area possible to complete the work by restricting the contractor's equipment access through the use of construction limit fencing per the TRPA Code of Ordinances.

Mitigation Measure B-8: All excavated material not required to complete the construction work shall be immediately removed from the wetland areas and be contained by BMP measures per TRPA's Handbook of Best Management Practices.

Item IV-D Discussion: With the implementation of Mitigation Measures B-1 - B-3 found in Section IV-A above, the Proposed Project will not 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; therefore, the Project will have a less than significant impact.

V. CULTURAL RESOURCES – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique Paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Category V Discussion: A cultural resources study, which included a literature search and an archaeological survey/inventory of the Project survey area, was completed. Fourteen previous cultural resources studies have been conducted in the vicinity of the Project area, four of which included portions of the Area of Potential Effects

(APE). No cultural resources have been previously recorded within the APE and none were identified within the APE during the pedestrian survey. The APE is considered to have a low sensitivity for the discovery of prehistoric, ethno historic, or historic cultural material or subsurface deposits. Because of this, no additional cultural resources work for this Project is recommended. However, in the event that cultural resources are discovered during Project implementation, Project personnel shall halt all activities in the immediate area and notify a qualified archaeologist to determine the appropriate course of action. Therefore, the Project will have no impact on cultural resources.

VI. GEOLOGY & SOILS – Would the project:

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

Item VI-B Discussion: The intent of the Proposed Project is to implement erosion control and water quality improvements within the Project area that will stabilize bare soils and improve stormwater quality. During construction, portions of the site will have exposed soil areas that may, during a rain storm, high wind event or utility line breach, erode and pose a threat to water quality. Once Project construction is complete, there will be an overall decrease of erosion in the Project area. With the implementation of the mitigation measures outlined below in *Item VI-B Mitigation Measures,* the Proposed Project will not result in any significant increase in wind or water erosion of soils, either on or off the site; therefore, the Project will have a less than significant impact.

Item VI-B Mitigation Measures:

Mitigation Measure G-1: The contractor shall prepare, submit and adhere to a Storm Water Pollution Prevention Plan (SWPPP) to the County, Lahontan Regional Water Quality Control Board (Lahontan), and TRPA prior to

construction. The SWPPP shall be in accordance with TRPA and Lahontan requirements for stormwater pollution prevention in the Tahoe Basin. As part of the SWPPP, the contractor will be required to prepare and adhere to a Temporary BMP Plan, a Spill Contingency Plan and a Dewatering Plan.

The Temporary BMP Plan will include design and specifications that detail the required construction BMPs that shall be installed prior to and during construction to prevent any erosion that may occur during a rain or wind event. All temporary BMPs shall be installed and maintained per TRPA's Handbook of Best Management Practices. Temporary BMPs will include, but are not limited to: gravel bags, silt fencing, tree protection fencing, construction limit fencing, coir logs, visqueen, and construction access gravel. Prior to construction, all storage, access, and staging areas shall be secured by the contractor and approved by EDOT, Lahontan, and TRPA. No staging or storage will occur in Stream Environment Zones (SEZs). The contractor shall be responsible for maintenance of mobilization sites, including placement and maintenance of BMPs. All equipment, vehicles, and materials shall be stored on paved or previously disturbed surfaces only; in locations approved by the County, Lahontan, and TRPA.

The contractor shall limit the areas to be disturbed to the area within the boundary of the construction limit fencing, which shall be designed and installed prior to commencement of construction. The boundary of the construction limit fencing shall be displayed on the EC Sheets of the construction plans and shall be set to the minimum size required to construct proposed improvements, per the Projects plans and specifications. All disturbed areas shall be restored to a better than pre-construction condition. The contractor shall meet the permit requirements for BMPs, staging areas, revegetation, grading season restrictions, and all other permitting agency approval conditions. Construction will take place within the Lake Tahoe construction season (between May 1st and October 15th).

The Spill Contingency Plan, which the contractor shall adhere to, shall outline how to properly handle accidental construction related spills and must include the requirement for spill prevention kits to be available on site to contain and properly clean any accidental spills. The Spill Contingency Plan will help the contractor to minimize the potential for and effects from spills of hazardous, toxic, or petroleum based substances during construction activities. The Spill Prevention Kit will contain, but is not limited to, absorbent pads, plastic bags, containment devices, drain seals and drip pans. This plan will also outline who to call if utility lines are damaged during construction.

The Dewatering Plan, which the contractor shall adhere to, will outline the process that will be required of the contractor if groundwater is intercepted during construction. The Dewatering Plan shall be prepared and submitted for approval by EDOT, Lahontan, and TRPA prior to commencement of construction. Construction sequencing shall be designed to avoid and minimize the potential of encountering groundwater during construction. However, if groundwater is encountered and the excavated area requires dewatering to complete the work, construction shall immediately cease and TRPA, Lahontan, and the County shall be notified immediately. The agencies will then observe the construction work to ensure that the approved dewatering plan is being adhered to and that dewatering effluent is properly contained and disposed of. Based on the results of the Soils/Hydrology Analysis, which is performed by TRPA prior to construction, dewatering areas will be better identified to avoid and reduce the potential of groundwater interception.

Mitigation Measure G-2: The contractor shall attend the TRPA pre-grade onsite inspection meeting to ensure that proper BMPs are in place per the SWPPP and that all permit conditions have been met prior to commencement of construction.

Mitigation Measure G-3: EDOT shall conduct daily inspections of BMPs to ensure they are properly placed and maintained for maximum water quality benefit. As part of this process, EDOT and/or the contractor will complete inspection forms for submittal to regulatory agencies to demonstrate deficiencies and that corrective action has been immediately taken.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

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

Item VII-A Discussion: Project construction would generate temporary and one-time greenhouse gas (GHG) emissions mainly from diesel-powered construction equipment and on-road trucks, with a small amount from workers' personal vehicles during construction of the Project. Greenhouse gases emitted during the combustion of diesel fuel in off-road construction equipment and on-road vehicles would consist mainly of carbon dioxide, along with small amounts of methane and nitrous oxide. Construction emissions would be intermittent, and short-term, during one summer construction season. Construction emissions would permanently cease at the end of the Project. Over the long-term, these temporary emissions would be offset or mitigated by the growth of native vegetation at designated restoration areas. The revegetation work, including trees, grasses, and shrubs would be maintained over the life of the Project to sequester carbon dioxide.

There currently is no federal, state, or local regulatory guidance for determining whether a project advances or hinders California's GHG reduction goals and no promulgated thresholds of significance for GHG impacts have been established. Therefore, this analysis focuses on construction impacts estimated using the County's past project implementation database and the U.S. Environmental Protection Agency (USEPA) GHG emission factors for diesel fuel and gasoline combustion in construction equipment. The County has reviewed past construction logs for projects equivalent in size and scope to the Proposed Project, to determine the typical number and type of vehicles that are actively working to construct the project each day. Based on this analysis, the County has formulated the following assumptions:

- Fifteen workers per day, driving five vehicles to work an average of 40 miles roundtrip per day
- Vehicles average 20 miles per gallon
- Twelve pieces of construction machinery per day
- Crews work eight hours per day with machinery running half that time (4 hours)
- Machinery burns an average of two gallons of diesel fuel per hour
- Diesel fuel contributes approximately 22.5 lbs CO_2/gallon
- Gasoline contributes approximately 20 lbs CO_2/gallon
- The Project will be completed in 30 working days

Based on these assumptions, the Proposed Project would emit approximately 32 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 480,000,000 metric tons discussed above (0.00000007 percent). The estimated amount is also significantly less than the San Luis Obispo Air Pollution Control District's (SLOAPCD) significance threshold of 1,150 metric tons of CO_2 equivalents. GHG emissions would terminate following completion of construction work. Therefore, due to the intent of the Project and with the implementation of Mitigation Measures AQ-1 - AQ-7 found in Section III above, the Proposed Project will not create a substantial amount of greenhouse gas emissions; therefore, the Project will have a less than significant impact.

VIII. HAZARDS & HAZARDOUS MATERIALS – Would the project:

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

Item VIII-A Discussion: During Project construction, there exists a risk of accidental fuel spills from construction equipment. With the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the Proposed Project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; therefore, the Project will have a less than significant impact.

Item VIII-B Discussion: During Project construction, there exists a risk of accidental fuel spills from construction equipment. With the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the Proposed Project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; therefore, the Project will have a less than significant impact.

IX. HYDROLOGY & WATER QUALITY – Would the project:

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

Item IX-A Discussion: During construction, grading and excavation will take place that may have the potential to cause erosion. During Project construction, there exists a risk of accidental fuel spills from construction equipment. Once construction is complete and the erosion control and water quality improvement measures are in place, water quality in the area will be improved. With the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the Proposed Project will not violate any water quality standards; therefore, the Proposed Project will have a less than significant impact.

Item IX-C Discussion: One of the goals of the Proposed Project is to reduce peak flows and volumes while providing treatment for the pollutants of primary concern. The Project will slightly affect drainage patterns in order to improve hydraulic and hydrologic connectivity of the site and move stormwater to where it can be infiltrated. As a result, flow rates and volumes at the Project outflow locations will likely be decreased due to the infiltration components of this Project. The Proposed Project will not substantially alter the existing drainage pattern of the

site or area in a manner which would result in substantial erosion or siltation on- or off-site; therefore, the Proposed Project will have a less than significant impact.

Item IX-D Discussion: One of the goals of the Proposed Project is to reduce peak flows and volumes while providing treatment for the pollutants of primary concern. The Project will affect drainage patterns in order to improve hydraulic and hydrologic connectivity of the site and move stormwater to where it can be infiltrated. As a result, flow rates and volumes at the Project outflow locations will likely be decreased due to the infiltration components of this Project. The Proposed Project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site; therefore, the Proposed Project will have a less than significant impact.

Item IX-E Discussion: During construction of the Proposed Project, grading and excavation will take place that may have a potential to cause increased surface runoff. Once construction is complete and the erosion control and water quality improvement measures are in place, surface flows and volumes will likely be reduced from their existing condition and an improved stormwater system will be in place. With the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the Proposed Project will not 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; therefore, the Project will have a less than significant impact.

Item IX-F Discussion: During construction of the Proposed Project, grading and excavation will take place that may have a potential to cause increased surface runoff and minor erosion. Once construction is complete and the erosion control and water quality improvement measures are in place, surface runoff and erosion will be reduced and water quality will be improved. With the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the Proposed Project will not otherwise substantially degrade water quality; therefore, the Project will have a less than significant impact.

X. LAND USE & PLANNING – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Category X Discussion: The Proposed Project will not physically divide an established community; conflict with any applicable land use plan, policy, or regulation; or conflict with any applicable habitat conservation plan or natural community conservation plan. The Project area is located in an unincorporated area of El Dorado County within the Tahoe Basin. Land use policies for the Project area are discussed in the El Dorado County General Plan, the TRPA Regional Plan, and the TRPA Plan Area Statements (PAS). The Project lies within PAS 131 and 132, which have a land use classification of “Residential”, with a maximum density of one single family dwelling per parcel. The Proposed Project will not impact the land use of the area and is consistent with the existing allowed uses; therefore, the Proposed Project will have no impact on land use or planning.

XI. MINERAL RESOURCES – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Category XI Discussion: There are no known mineral resources that would be of value to the region or the state in the Project area. Therefore, the Proposed Project will have no impact on mineral resources.

XII. NOISE – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Item XII-A Discussion: Standard construction equipment shall be used to construct the improvements associated with the Proposed Project. The equipment will increase noise levels over that of regular levels in the neighborhood, but the noise levels will be within allowable noise decibel standards imposed by the County and the TRPA. The TRPA Code of Ordinances states that TRPA-approved construction projects are exempt from the quantitative limits contained in the Noise Ordinance and Community Plan if construction activities take place between the hours of 8:00 a.m. and 6:30 p.m. With the implementation of the mitigation measures outlined below in *Item XII-A Mitigation Measures,* the Proposed Project may result in a temporary or periodic exposure to or generation of noise levels in excess of standards established in the local General Plan, Community Plan, or Noise

Ordinance, but it will be temporary and is allowable under local ordinances. Therefore, the Project will have a less than significant impact.

Item XII-A Mitigation Measures:

Mitigation Measure N-1: In order to mitigate the impacts of temporarily increased ambient noise levels, construction noise emanating from all construction activities shall only occur between the hours of 8:00 a.m. and 6:30 p.m. per TRPA Code and the County's General Plan, unless other hours are approved by TRPA.

Mitigation Measure N-2: All construction equipment and vehicles used for Project construction shall be fitted with factory installed muffling devices and will be maintained in good working order. EDOT will advise potentially affected residents of the proposed construction activities including duration, schedule of activities, and contacts for filing noise complaints. EDOT staff and/or the contractor shall respond to all noise complaints received within one working day and resolve the issue within two working days.

Item XII-B Discussion: Standard construction equipment will be used to construct the proposed improvements. The equipment will create groundborne vibrations and noise levels over that of regular levels in the neighborhood, but the groundborne vibrations and noise levels will be within acceptable noise decibel standards imposed by the County and the TRPA. The Proposed Project will not result in exposure of persons to or generation of groundborne vibration or noise levels in excess of standards established in the local General Plan, Community Plan, or Noise Ordinance, or applicable standards of other agencies; therefore, the Project will have a less than significant impact.

Item XII-D Discussion: Refer to the information stated in the *Item XII-A Discussion*. With the implementation of Mitigation Measures N-1 and N-2 found in Section XII above, the Proposed Project may result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project, but it will be temporary and is allowable under local ordinances. Therefore, the Project will have a less than significant impact.

XIII. POPULATION & HOUSING – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Category XIII Discussion: The Proposed Project will not directly or indirectly induce or displace existing or future housing. Therefore, the Proposed Project will have no impact on population and housing.

XIV. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services, including:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

Category XIV Discussion: The Proposed Project will have no impact on fire protection, police protection, schools, parks, or other public facilities. Improvements are designed and located to ensure that regular access and maintenance can take place. The Proposed Project will not result in substantial adverse physical impacts associated with the new or altered facilities; therefore, the Project will have no impact on public services.

XV. RECREATION – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
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, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Item XV-A Discussion: The Proposed Project will not affect the recreational components of the Project area; therefore the Project will have no impact.

XVI. TRANSPORTATION & TRAFFIC – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant	☐	☐	☐	☒

components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Item XVI-E Discussion: At some locations, temporary lane closures may be necessary to facilitate Project construction; however, at no time would access for local residents, school buses, or emergency vehicles be prohibited. Traffic controls will only be implemented during work hours and when it is necessary to perform work. With the implementation of the mitigation measures outlined below in *Item XVI-E Mitigation Measures,* the Proposed Project will not result in inadequate emergency access; therefore, the Project will have a less than significant impact.

Item XVI-E Mitigation Measures:

Mitigation Measure T-1: The contractor will be required to prepare and adhere to a Traffic Control Plan for TRPA and County review and approval. Elements of the plan will include appropriate use of signage, flaggers, traffic calming, and alternative routes to accommodate local and through traffic. In addition, EDOT will advise local residents regarding schedules for construction traffic detours through signage, press releases, and distribution of flyers in area neighborhoods well in advance of construction initiation. Access will not be prohibited, at any time, for local residents, school buses or emergency vehicles.

XVII. UTILITIES & SERVICE SYSTEMS – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the	☐	☒	☐	☐

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
construction of which could cause significant environmental effects?				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Item XVII-C Discussion: The Proposed Project will implement erosion control and water quality improvement measures that will reduce the discharge of sediment and pollutants to Lake Tahoe from the County rights-of-way. The Proposed Project will install new storm water drainage and treatment facilities to supplement and improve the existing storm water infrastructure. All newly proposed stormwater facilities will be installed within existing drainage areas. This Project is identified in the Lake Tahoe Environmental Improvement Program and is intended to improve the environment by addressing stormwater deficiencies, erosion, and water quality problems. The Proposed Project will require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, however with the implementation of Mitigation Measures G-1, G-2 and G-3 found in Section VI above, the construction will not cause significant environmental effects; therefore, the Project will have a less than significant impact.

MANDATORY FINDINGS OF SIGNIFICANCE

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

OTHER RESPONSIBLE AND TRUSTEE AGENCIES (whose approval is required)

☐ California Department of Fish and Game	☐ Local Agency Formation Commission (LAFCO)
☐ California Department of Forestry	☐ National Marine Fisheries Service
☐ California Department of Health Services	☒ Tahoe Regional Planning Agency
☐ California Department of Toxic Substances	☒ U.S. Army Corps of Engineers
☐ California Department of Transportation (Caltrans)	☐ U.S. Fish and Wildlife Service
☐ California Integrated Waste Management Board	☒ USFS - LTBMU
☒ California Regional Water Quality Control Board	☐ California Tahoe Conservancy

LIST OF PREPARERS

Principal Authors

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Contributors

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Charles Zeier

DETERMINATION – The Environmental Review Committee finds that (choose one):

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

Signature_____ _____Date November 30, 2012

Brendan Ferry, County of El Dorado

APPENDIX B:
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

PROJECT NAME: BOULDER MOUNTAIN EROSION CONTROL PROJECT

MITIGATED NEGATIVE DECLARATION #: ***2012102049***

REGULATORY BACKGROUND

This Mitigation Monitoring and Reporting Plan (MMRP) was prepared to comply with Section 21081.6 of the Public Resources Code, which requires the following:

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

This MMRP is intended to ensure the effective implementation of mitigation measures that are within the authority of the County of El Dorado (County). The mitigation measures will be implemented (including monitoring where identified) throughout all phases of the development and operation of the Boulder Mountain Erosion Control Project (Proposed Project). Monitoring of such mitigation measures may extend through Project permitting, construction, and Project operations, as necessary.

The required monitoring and reporting shall be accomplished through the County's Standard Mitigation Monitoring Program and/or the Project Specific Mitigation Monitoring and Reporting Program as defined in the County of El Dorado Code.

PROGRAM IMPLEMENTATION

The MMRP Checklist (Table C-1) lists all mitigation measures identified in the *CEQA Checklist* for the Proposed Project. In general, monitoring becomes effective at the time the action is taken on the Project. Timing of monitoring is organized as follows:

- Prior to Construction: The monitoring activity consists of ensuring that a particular mitigation action has taken place prior to the beginning of any construction or grading activities.
- During Construction: The monitoring activity consists of active monitoring while grading or construction is occurring on the Project site.
- Prior to Operation: The monitoring activity consists of active monitoring after initial site grading and facility construction has occurred, but prior to the initiation of Project operations.
- Ongoing: The monitoring activity consists of monitoring after the grading and construction phase of the Project has been completed, and relates to ongoing operation of the Project.

The mitigation measures listed in Table C-1 are numbered as they are described in the *CEQA Checklist*. County of El Dorado staff will be responsible for implementing and/or ensuring that the mitigation measures listed in the MMRP are undertaken for this Project, to the extent such mitigation measures apply to the Project within the County of El Dorado. Implementation includes ensuring that any required actions are included in bid documents and contracts as part of the design/build process for the Project, and ensuring that the contractor includes specified mitigation activities in plans and specifications for construction. County staff shall designate mitigation measure responsibility and oversee the contractor and consultants.

APPENDIX C:
TABLES

TABLE C-1. MITIGATION MONITORING AND REPORTING PROGRAM FOR THE BOULDER MOUNTAIN EROSION CONTROL PROJECT

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
AESTHETICS				
No mitigation measures required.				
AGRICULTURAL RESOURCES				
No mitigation measures required.				
AIR QUALITY- Item III-B				
Mitigation Measure AQ-1: The construction contractor shall implement air quality Best Management Practices from the TRPA Code of Ordinances and Handbook of Best Management Practices.	DOT or its Contractor	DOT	Prior to and During Construction	
Mitigation Measures AQ-2*:* The construction contractor shall water exposed soil twice daily, or as needed, to control wind borne dust. All haul/dump truckloads shall be covered securely.	DOT or its Contractor	DOT	Prior to and During Construction	
Mitigation Measure AQ-3: The contractor shall sweep the Project site a minimum of once daily to remove all dirt and mud which has been generated from or deposited on roadways by construction equipment going to and from the construction site.	DOT or its Contractor	DOT	Prior to and During Construction	
Mitigation Measure AQ-4: On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.	DOT or its Contractor	DOT	Prior to and During Construction	
Mitigation Measure AQ-5: Construction activities shall comply with EDCAQMD Rule 223-Fugitive Dust, so that emissions do not exceed hourly levels. The contractor will use approved BMP practices as outlined in the TRPA Handbook of Best Management Practices and the EDCAQMD Rule 223 to address fugitive dust. Dust mitigation measures and dust control BMPs will include, but are not limited to, stabilization of unpaved areas subject to vehicular traffic, stabilization of storage piles and disturbed areas, dust suppression through watering of areas to be disturbed, cleaning of all construction vehicles leaving the site, mulching of bare soil areas, and suspension of grading and earth moving activities when wind speeds are high enough to result in dust emissions crossing the Project boundary.	DOT or its Contractor	DOT	Prior to and During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure AQ-6: Construction equipment idling shall be restricted to 5 minutes when not in use.	DOT or its Contractor	DOT	Prior to and During Construction	
Mitigation Measure AQ-7: The construction contractor shall post a publicly visible sign on the Project site during construction operations that specify the telephone number and person/agency to contact for complaints and/or inquiries on dust generation and other air quality problems resulting from Project construction.	DOT or its Contractor	DOT	Prior to and During Construction	
BIOLOGICAL RESOURCES- Item IV-A				
Mitigation Measure B-1: Prior to construction, the County will confirm if any new special status species have been identified by the USFS-LTBMU or the CA Fish & Wildlife Service (via the California Natural Diversity Database - *CNDDB*) within, or immediately adjacent to, the Project area. If new activity or occurrences have been identified, appropriate limited operating periods (LOP) will be observed.	DOT or its Consultant	DOT	Prior to Construction	
Mitigation Measure B-2: If special status plant species are found prior to or during construction, these populations will be identified and protected with appropriate measures per TRPA and the USFS-LTBMU.	DOT or its Consultant	DOT	Prior to Construction	
Mitigation Measure B-3: The County will implement and require the contractor to adhere to a Noxious Weed Mitigation Plan (Plan) to decrease habitat vulnerability to or below pre-construction levels. The Plan includes pre-construction elements such as treatment methodologies for existing noxious weed populations identified in the Project area, as well as operating procedures for both during and post-construction. Recommended BMPs will include, but are not limited to: hand removal of existing weeds prior to going to seed, equipment cleaning prior to use, area of disturbance minimization, disturbed ground stabilization upon completion of construction with mulch or other means, certified weed-free mulch and other materials, and disturbed areas revegetation with native plants.	DOT or its Consultant	DOT	Prior to Construction	
BIOLOGICAL RESOURCES - ITEM IV-B				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure B-4: Construction limit fencing, per TRPA's Code of Ordinances and the Handbook of BMPs, shall be designed and implemented by the contractor to limit SEZ disturbance to an area not to exceed five feet outside of the disturbance zone of the water quality and erosion control improvements. All disturbed areas will be stabilized and revegetated with compost, native seed and mulch. All revegetated areas will be irrigated for a minimum of two years following construction. Construction measures will include, but are not limited to, the use of hand or low impact equipment and the implementation of temporary BMPs such as filter fencing, coir logs, gravel bags, tree protection, and construction limit fencing to minimize disturbance. Although groundwater is not expected to be encountered during construction, if groundwater is encountered and the excavated area requires dewatering to complete the work, TRPA and the Lahontan Regional Water Quality Control Board shall be notified immediately to determine the appropriate course of action. The Storm Water Pollution Prevention Plan (SWPPP) for the Project will include a Dewatering Contingency Plan (Item VI-B Mitigation Measures) that the contractor shall follow.	DOT or its Consultant	DOT	Prior to and During Construction	
Mitigation Measure B-5: Stormwater facilities will be designed per TRPA and Lahontan criteria to improve the water quality of storm water entering SEZs, as compared to the pre-Project conditions. The erosion control aspects of the Project will enhance hydrology, soils, and vegetation.	DOT or its Consultant	DOT	Prior to and During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure B-6: The Project was designed around the findings of the wetland delineation report to avoid or minimize impacts to wetlands and/or other WOUS. The County will also obtain a 404 Permit and a 401 Water Quality Certification, if necessary, and will implement the required mitigation measures. The County will obtain a TRPA EIP Project Permit and will implement the required mitigation measures. Up to 5,036 square feet of SEZ could be disturbed by implementing the Proposed Project. All of the potentially impacted SEZ is along the road shoulder and has been previously disturbed. EDOT will utilize SEZ Mitigation Credits that are stored from pervious County restoration Projects, primarily the Angora SEZ Enhancement Project, in order to mitigate the new SEZ disturbance and comply with applicable permits.	DOT or its Consultant	DOT	Prior to and During Construction	
BIOLOGICAL RESOURCES - Item IV-C				
Mitigation Measure B-7: Should any construction work be required in or adjacent to wetlands, it shall be conducted from existing pavement and/or confined to the smallest area possible to complete the work by restricting the contractor's access with equipment through the use of construction limit fencing per the TRPA Code of Ordinances.	DOT or its Consultant	DOT	Prior to and During Construction	
Mitigation Measure B-8: All excavated material not required to complete the construction work shall be immediately removed from the wetland areas and be contained by BMP measures per TRPA's Handbook of Best Management Practices.	DOT or its Consultant	DOT	Prior to Construction	
CULTURAL RESOURCES				
No mitigation measures required.				
GEOLOGY AND SOILS - Item VI-B				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure G-1: The contractor shall prepare, submit and adhere to a Storm Water Pollution Prevention Plan (SWPPP) to the County, Lahontan Regional Water Quality Control Board (Lahontan), and TRPA prior to construction. The SWPPP shall be in accordance with the TRPA and Lahontan requirements for storm water pollution prevention in the Tahoe Basin. As part of the SWPPP, the contractor will be required to prepare and adhere to a Temporary BMP Plan, a Spill Contingency Plan, and a Dewatering Plan. The Temporary BMP Plan will include design and specifications that detail the required construction BMPs that shall be installed prior to and during construction to prevent any erosion that may occur during a rain or wind event. All temporary BMPs shall be installed and maintained per TRPA's Handbook of Best Management Practices. Temporary BMPs will include, but are not limited to: gravel bags, silt fencing, tree protection fencing, construction limit fencing, coir logs, visqueen and gravel construction access. Prior to construction, all storage, access, and staging areas shall be secured by the contractor and approved by EDOT, Lahontan and TRPA. No staging or storage will occur in Stream Environment Zones (SEZs). The contractor shall be responsible for maintenance of mobilization sites, including placement and maintenance of BMPs. All equipment, vehicles, and materials shall be stored on paved or previously disturbed surfaces only; in locations approved by the County, Lahontan and TRPA. The contractor shall limit the areas to be disturbed to the area within the boundary of the construction limit fencing, which shall be designed and installed prior to commencement of construction. The boundary of the construction limit fencing shall be displayed on the EC Sheets of the construction plans and shall be set to the minimum size required to construct proposed improvements, per the Projects plans and specifications. All temporary BMPs shall be maintained during construction and shall be monitored daily by the construction site inspector. All disturbed areas shall be restored to a better than pre-construction condition.	DOT and its Contractor	DOT	Prior to and During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure G-1 (Continued): The contractor shall meet the permit requirements for BMPs, staging areas, revegetation, grading season restrictions, and all other permitting agency approval conditions. Construction will take place within the Lake Tahoe construction season (between May 1st and October 15th). The Spill Contingency Plan, which the contractor shall adhere to, shall outline how to properly handle accidental construction related spills and must include the requirement for spill prevention kits to be available on site to contain and properly clean any accidental spills. The Spill Contingency Plan will help the contractor to minimize the potential for and effects from spills of hazardous, toxic, or petroleum based substances during construction activities. The Spill Prevention Kit will contain, but is not limited to, sorbent pads, plastic bags, containment devices, drain seals, and drip pans. This plan will also outline who to call if utility lines are damaged during construction. The Dewatering Plan, which the contractor shall adhere to, will outline the process that will be required of the contractor if groundwater is intercepted during construction. The Dewatering Plan shall be prepared and submitted for approval by EDOT, Lahontan and TRPA prior to commencement of construction. Construction sequencing shall be designed to avoid and minimize the potential of encountering groundwater during construction, however if groundwater is encountered and the excavated area requires dewatering to complete the work, construction shall immediately cease and TRPA, Lahontan and the County shall be notified immediately to observe the construction work to ensure that the approved dewatering plan is being adhere to and that dewatering effluent is properly contained and disposed of. Based on the results of the Soils/Hydrology Analysis, which is performed by TRPA prior to construction, dewatering areas will be better identified to avoid and reduce the potential of groundwater interception.	DOT and its Contractor	DOT	Prior to And During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure G-2: The contractor shall attend the TRPA pre-grade onsite inspection meeting to ensure that proper BMPs are in place per the SWPPP and that all permit conditions have been met prior to commencement of construction.	DOT and its Contractor	DOT	Prior to and During Construction	
Mitigation Measure G-3: EDOT shall conduct daily inspections of BMP measures to ensure they are properly placed and maintained for maximum water quality benefit. As part of this process, EDOT and/or the contractor will complete formal inspection forms for submittal to regulatory agencies to demonstrate deficiencies and that corrective action has been immediately taken.	DOT and its Contractor	DOT	Prior to and During Construction	
GREENHOUSE GAS EMISSIONS - Item VII-A				
Mitigation Measure: Implement Mitigation Measures identified under Item III-B Mitigation Measures.	DOT or its Contractor	DOT	Prior to and During Construction	
HAZARDS AND HAZARDOUS MATERIALS - Item VIII-A and Item VIII-B				
Mitigation Measure: Implement Mitigation Measures identified under Item VI-B Mitigation Measures.	DOT or its Contractor	DOT	Prior to and During Construction	
HYDROLOGY AND WATER QUALITY - Item IX-A, Item IX-E and Item IX-F				
Mitigation Measure: Implement Mitigation Measures identified under Item VI-B Mitigation Measures.	DOT or its Contractor	DOT	Prior to and During Construction	
LAND USE AND PLANNING				
No mitigation measures required.				
MINERAL RESOURCES				
No mitigation measures required.				
NOISE - Item XII-A and Item XII-D				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure N-1: In order to mitigate the impacts of temporarily increased ambient noise levels, construction noise emanating from all construction activities shall only occur between the hours of 8:00 a.m. and 6:30 p.m. per TRPA Code and the County's General Plan, unless other hours are approved by TRPA.	DOT or its Contractor	DOT	During Construction	
Mitigation Measure N-2: All construction equipment and vehicles used for Project construction shall be fitted with the factory installed muffling devices and will be maintained in good working order. EDOT will advise potentially affected residents of the proposed construction activities including duration, schedule of activities, and contacts for filing noise complaints. EDOT staff and/or contractor shall respond to all noise complaints received within one working day and resolve the issue within two working days.	DOT or its Contractor	DOT	Prior to and During Construction	
POPULATION AND HOUSING				
No mitigation measures required.				
PUBLIC SERVICES				
No mitigation measures required.				
RECREATION				
No mitigation measures required.				
TRANSPORTATION AND TRAFFIC - Item XVI-E				
Mitigation Measure T-1: The contractor will be required to prepare and adhere to a Traffic Control Plan for TRPA and County review and approval. Elements of the plan will include appropriate use of signage, flaggers, traffic calming, and alternative routes to accommodate local and through traffic. In addition, EDOT will advise local residents regarding schedules for construction traffic detours through signage, press releases, and distribution of flyers in area neighborhoods well in advance of construction initiation. Access will not be prohibited, at any time, for local residents, school buses or emergency vehicles.	DOT	DOT	Prior to and During Construction	
UTILITIES AND SERVICE SYSTEMS - Item XVI-C				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure: Implement Mitigation Measures identified under Item VI-B Mitigation Measures.	DOT or its Contractor	DOT	Prior to and During Construction	

[1] The department listed in the Implementing Responsibility column is the department responsible for conducting the mitigation measure.
[2] The department listed in the Monitoring Responsibility column is responsible for verifying that compliance with the mitigation measure occurs and that all monitoring and reporting is completed.
[3] Responsible Entity: DOT-Department of Transportation

Table 1. Boulder Mountain Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Arabis rigidissima* var. *demota Galena Creek rockcress		S	SI	1B.2	Broad-leaved upland forests, upper montane coniferous forests on rocky substrates. Known in CA from only two occurrences near Martis Peak and in NV from eleven occurrences in the Carson Range. Elevation range 7,398 to 8,398 feet.	August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Arabis rectissima* var. *simulans Washoe Trail or Tall rockcress		LSI			Jeffrey pine-fir forest on gentle slopes, in gently disturbed areas, on sandy granitic or andesitic soil. The elevation range is from 7,021 to 10,020 feet.	June to July	**Unlikely.** Outside of elevation range.
Arabis tiehmii Tiehm's rockcress		S		1B.3	High elevation metavolcanic or decomposed granite ridges and steep slopes. Elevation range 9,745 to 11,775 feet.	July to August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Botrychium ascendens Upswept moonwort		S		2.3	Wet or moist soils in lower montane coniferous forests, such as along the edges of lakes and streams. Elevation range 4,950 to 6,039 feet.	Fertile early July to early September	**Potential.** May occur. Not encountered.
Botrychium crenulatum Scalloped moonwort		S		2.2	Lower montane coniferous forests, meadows and seeps, marshes and swamps. Elevation range 4,950 to 10,800 feet.	Fronds mature June to September	**Potential.** May occur. Not encountered.
Botrychium lineare Slender moonwort		S		1B.3	Wet or moist soils in upper montane coniferous forests, such as along the edges of lakes and streams. Elevation range from sea level to 10,640 feet.	Fronds mature June to September	**Potential.** May occur. Not encountered.
Botrychium lunaria Common moonwort		S		2.3	Montane coniferous forests, meadows and seeps. Elevation range 7,524 to 11,220 feet.	Fertile in August	**Unlikely.** Outside of elevation range.
Botrychium minganense Mingan moonwort		S		2.2	Wet or moist soils in lower montane coniferous forests, such as along the edges of lakes and streams. Elevation range 4,950 to 6,039 feet.	Fronds mature June to September	**Potential.** May occur. Not encountered.
Botrychium montanum Western goblin		S		2.1	Wet or moist soils in lower montane coniferous forests, such as along the edges of lakes and streams. Elevation range 4,950 to 6,039 feet.	Fronds mature July to August	**Potential.** May occur. Not encountered.
Bruchia bolanderi Bolander's candle moss		S		2.2	Meadows in mixed conifer and subalpine communities, streams and wet meadows, from 5,577 to 9,186 feet.	Moss	**Potential.** May occur. Not encountered.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Dendrocollybia racemosa Branched collybia		S			Grows on decayed, blackened mushrooms or coniferous duff, usually within old growth stands.	Fall and Winter	**Unlikely.** Site lacks suitable habitat.
Draba asterophora* var. *asterophora Tahoe draba		S	SI	1B.2	Alpine boulder and rock fields in crevices, and open talus slopes of decomposed granite in subalpine coniferous forests. Elevation range 8,325 to 11,670 feet.	July to September	**Unlikely.** Outside of elevation range.
Draba asterophora* var. *macrocarpa Cup Lake draba		S	SI	1B.1	Alpine boulder and rock fields in shade of granitic rocks in subalpine coniferous forest. Elevation range 8,202 to 9,235 feet.	July to August	**Unlikely.** Outside of elevation range.
Epilobium howellii Subalpine fireweed		S		4.3	Meadows and seeps in upper montane coniferous forests. Elevation range 6,600 to 8,910 feet.	July to August	**Unlikely.** Outside of elevation range.
Erigeron miser Starved daisy		S		1B.3	Rocky outcrops in upper montane coniferous forests. Elevation range 6,072 to 8,646 feet.	Blooms June to October	**Unlikely.** Site lacks undisturbed suitable habitat.
Eriogonum umbellatum* var. *torreyanum Torrey's buckwheat		S		1B.2	Meadows and seeps, upper montane coniferous forests; volcanic, rocky soils. Elevation range 6,121 to 8,646 feet.	July to September	**Potential.** May occur. No known occurrences in LTMBU. Not encountered.
Helodium blandowii Blandow's bog-moss		S		2.3	Bogs and fens that are not too rich in iron. Elevation range 6,562 to 8,859 feet.	Moss	**Unlikely.** Outside of elevation range.
Hulsea brevifolia Short-leaved hulsea		S		1B.2	Lower and upper montane coniferous forests. Granitic or volcanic, sandy, or gravelly substrate. Elevation range 4,950 to 10,560 feet.	Blooms May to August	**Unlikely.** Site lacks undisturbed suitable habitat.
Lewisia kelloggii* ssp. *hutchisonii Hutchison's lewisia		S		3.3	Ridge tops or flat open spaces with widely spaced trees and sandy granitic to erosive volcanic soil. Elevation range 5,000 to 7,000 feet.	June to July	**Unlikely.** Site lacks undisturbed suitable habitat.
Lewisia kelloggii* ssp. *kelloggii Kellogg's lewisia		S			Ridge tops or flat open spaces with widely spaced trees and sandy granitic to erosive volcanic soil. Elevation range 5,000 to 7,000 feet.	June to July	**Unlikely.** Site lacks undisturbed suitable habitat.
Lewisia longipetala Long-petaled lewisia		S	SI	1B.3	Alpine boulder and rock fields in subalpine coniferous forests. Elevation range 8,325 to 9,740 feet.	June to August	**Unlikely.** Outside of elevation range.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Meesia longiseta Meesia moss		LSI			Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Potential.** May occur. Not encountered.
Meesia triquetra Three-ranked hump-moss		S		2.2	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Potential.** May occur. Not encountered.
Meesia uliginosa Broad-nerved hump-moss		S		2.2	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Potential.** May occur. Not encountered.
Myurella julacea Small mousetail moss		LSI		2.3	Shaded, damp cliffs and in crevices or on ledges, usually growing among other bryophytes or as small, pure patches on base-rich soil among rocks, or in crevices on mountains. Occuring from sea-level to subalpine areas.	Moss	**Unlikely.** Site lacks undisturbed suitable habitat.
Orthotrichum praemorsum Orthotrichum moss		LSI			Shaded, moist habitats of Eastside Sierra Nevada. Rock outcrops up to 8,200 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Orthotrichum shevockii Shevrock's moss		LSI		1B.3	Dry granitic rock outcrops in Carson Range, Douglas, and Carson City counties.	Moss	**Unlikely.** Site lacks suitable habitat and is outside of known range.
Orthotrichum spjutii Spjut's bristle-moss		LSI		1B.3	Continually misted, shaded granitic rock faces at high elevations.	Moss	**Unlikely.** Site lacks suitable habitat.
Peltigera hydrothyria Veined water lichen		S			Mixed coniferous forests, bogs, fens, wet meadows, seeps, and clear, cold streams. Elevation range 4,000 to 8,000 feet.	Lichen	**Potential.** May occur. Not encountered.
Pohlia tundrae Tundrae pohlia moss		LSI		2.3	Gravelly, damp soils of alpine boulder and rock fields. Elevation range 8,860 feet to 9,840 feet.	Moss	**Unlikely.** Outside of elevation range.
Rorippa subumbellata Tahoe yellow cress	FCE	S	SI	1B.1/ SE	Shoreline supporting decomposed granitic soils; known only from the shoreline of Lake Tahoe. Elevation range 6,210 to 6,230 feet.	Blooms May to September	**Unlikely.** Outside of elevation range.
Sphagnum species Sphagnum species		LSI			Usually in fens and bogs, sometimes in very wet, non-acidic habitats that remain saturated.	Moss	**Potential.** May occur. Not encountered.

Federally Listed Species (Federal):
FE = Federally Endangered
FT = Federally Threatened

Tahoe Regional Planning Agency (TRPA):
SI = TRPA Special Interest Species

California Native Plant Society (CNPS) List Categories:
1A = Plants presumed extinct in California
1B = Plants rare, threatened, or endangered in California and elsewhere

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
FD = Federally Delisted PT = Proposed Threatened FCE = Federally Endangered Candidate FPD = Proposed for Delisting	**USFS – Lake Tahoe Basin Management Unit Species (LTBMU):** S = USFS Sensitive Species LSI = USFS Species of Interest **California State Listed Species (CA):** SE = State Endangered ST = State Threatened SR = State Rare SC = State Candidate					2 = Plants rare, threatened or endangered in California, but common elsewhere 3 = Plants about which we need more information 4 = Plants of limited distribution **CNPS Threat Code Extensions:** .1 = Seriously endangered in California (Over 80% of occurrences threatened) .2 = Fairly endangered in California (20-80% occurrences threatened) .3 = Not very endangered in California (<20% of occurrences threatened)	

Sources: USFWS 2010, USFS 2010, USDA 2005a-b, CNDDB 2008, CDFG 2010, CNPS 2001, TRPA 1987

Notes:

- No special status species were found within the project area.
- The LTBMU does not currently support any plant species listed as threatened or endangered under the ESA.
- Federal Species of Concern no longer exists as a category.

Table 2. Boulder Mountain Erosion Control Project – Invasive and Noxious Weed Plant Species List and Habitat Analysis

Common Name	Scientific Name	LTBWCG	CDFA	SNFPA	Cal-IPC	Species Present? Y or N	If Present, Gross Area of Infestation (sq. ft.) or Number of Plants
Russian knapweed	*Acroptilon repens*	Group 1	B	NW	Moderate	N	
Tree of heaven	*Ailanthus altissima*			NW	Moderate	N	
Cheatgrass	*Bromus tectorum*			NW	High	Y	15 Populations
Heart-prodded hoarycress	*Cardaria draba*	Group 1	B	NW	Moderate	N	
Globe-prodded hoary cress	*Cardaria pubescens*	Group 1	B	NW	Limited	N	
Plumeless thistle	*Carduus acanthoides*		A	NW	Limited	N	
Musk thistle	*Carduus nutans*	Group 1	A	NW	Moderate	N	
Purple starthistle	*Centaurea calcitrapa*		B	NW	Moderate	N	
Diffuse knapweed	*Centaurea diffusa*	Group 1	A	NW	Moderate	N	
Spotted knapweed	*Centaurea maculosa*	Group 2	A	NW	High	N	
Yellow starthistle	*Centaurea solstitialis*	Group 1	C	NW	High	N	
Squarrose knapweed	*Centaurea squarrosa*	Group 1	A	NW	Moderate	N	
Rush skeletonweed	*Chondrilla juncea*	Group 1	A	NW	Moderate	N	
Canada thistle	*Cirsium arvense*	Group 1	B	NW	Moderate	N	
Bull thistle	*Cirsium vulgare*	Group 2		NW	Moderate	Y	1 Population
Poison hemlock	*Conium maculatum*				Moderate	N	
Field bindweed	*Convolvulus arvensis*		C	NW		N	
Bearded creeper	*Crupina vulgaris*		A	NW	Limited	N	
Scotchbroom	*Cytisus scoparius*	Group 2	C	NW	High	Y	1 Population
Teasel	*Dipsacus fullonum*	Group 1			Moderate	N	
Stinkwort	*Dittrichia graveolens*	Group 1			Moderate Alert	N	
Quackgrass	*Elytrigia repense*		B	NW		N	
French broom	*Genista monspessulana*		C	NW	High	N	
Hydrilla	*Hydrilla veticillata*		A	NW	High Alert	N	
St. John's wort/Klamathweed	*Hypericum perforatum*	Group 2	C	NW	Moderate	N	
Tall whitetop/Perennial pepperweed	*Lepidium latifolium*	Group 2	B	NW	High	N	
Oxeye daisy	*Leucanthemum vulgare*	Group 2		NW	Moderate	Y	1 Population
Dalmatian toadflax	*Linaria genistifolia* spp. *dalmatica*	Group 2	A	NW	Moderate	N	
Yellow toadflax	*Linaria vulgaris*	Group 2			Moderate	N	
Purple loosestrife	*Lythrum salicaria*		B	NW	High	N	
White Sweetclover	*Melilotus alba*					Y	5 Populations

Common Name	Scientific Name	LTBWCG	CDFA	SNFPA	Cal-IPC	Species Present? Y or N	If Present, Gross Area of Infestation (sq. ft.) or Number of Plants
Eurasian watermilfoil	*Myriophyllum spicatum*	Group 2		NW	High	N	
Scotch thistle	*Onopordum acanthium*	Group 1	A	NW	High	N	
Reed canary grass	*Phalaris arundinacea*					N	
Curlyleaf pondweed	*Potamogeton crispus*	Group 2			Moderate	N	
Sulfur cinquefoil	*Potentilla recta*	Group 1				N	
Russian thistle	*Salsola tragus*		C	NW	Limited	N	
Perennial sowthistle	*Sonchus arvensis*		A			N	
Medusa-head	*Taeniatherum caput-medusae*		C	NW	High	N	
Tamarisk	*Tamarix chinensis*			NW	High	N	
Puncture vine	*Tribulus terrestris*		C	NW		N	
Woolly mullein	*Verbascum thapsus*			NW	Limited	Y	5 Populations

Lake Tahoe Basin Weed Coordinating Group (LTBWCG) prioritizes invasive weeds of concern by management group.

- Group 1: Watch for, report, and eradicate immediately.
- Group 2: Manage infestations with the goal of eradication.

The California Department of Food and Agriculture's (CDFA) noxious weed list (http://www.cdfa.ca.gov/phpps/ipc/) divides noxious weeds into categories A, B, and C.

- A-listed Weeds: Eradication or containment is required at the state or county level.
- B-listed Weeds: Eradication or containment is at the discretion of the County Agricultural Commissioner (CAC).
- C-listed Weeds: Require eradication or containment only when found in a nursery or at the discretion of the CAC.
- Q-listed Weeds: Require temporary "A" action pending determination of a permanent rating.

Sierra Nevada Forest Plan Amendment (SNFPA) (USDA 2004b) part 3.6 defines noxious weeds (NW) as those plant species designated as noxious weeds by Federal or State law. Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and generally non-native.

California Invasive Plant Council (Cal-IPC) invasive plant inventory (http://www.cal-ipc.org/ip/inventory/weedlist.php) categorizes non-native invasive plants by the ecological impacts of each plant on wild lands into three categories high, moderate, & limited as well as an alert. An "alert" is assigned for species with significant potential for invading new ecosystems.

- High: these species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- Moderate: these species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- Limited: these species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

Table 3. Special Status Wildlife Species Considered for the Boulder Mountain Erosion Control Project

Common Name *Scientific Name*	Federal Status[1]	State Status[1]		Local Status[1]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence
		CESA	CDFG				
Amphibians							
Northern leopard frog *Rana pipiens*			SSC	S	No	No	**Not expected to occur**. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).
Mountain yellow-legged frog *Rana muscosa*	FC			S	No	No	**Not expected to occur**. The only location in the Tahoe Basin where mountain yellow-legged frogs have been consistently detected is at the headwaters of Trout Creek (USDA 2008).
Yosemite toad *Bufo canorus*	FC		SSC		No	No	**Not expected to occur.** Outside of the known range.
Birds							
American peregrine falcon *Falco peregrinus*	DL (8/99)	SCD	FP	SI	No	No	**Not expected to occur. No Potential to Impact TRPA Threshold Standard.** Suitable habitat does not exist in the project area, and this species is not known to occur in the project area.
Bald eagle *Haliaeetus leucocephalus*	DL (8/07)	SE	FP	SI S	No	No	**Not expected to occur. No Potential to Impact TRPA Threshold Standard**. Suitable bald eagle habitat does not occur in the project area and no nest areas are known to be located near the project area.
California spotted owl *Strix occidentalis occidentalis*			SSC	S	Yes	Yes	**Low. No potential to impact TRPA Threshold Standard.** The small pockets of mature, multi-storied forest that exist in this vicinity were impacted by the Angora fire and would not likely support the reproductive or foraging requirements of this species.
Golden eagle *Aquila chrysaetos*			FP	SI	No	No	**Not expected to occur.** The project area is impacted by the recent Angora fire and suitable foraging habitat is fragmented. This generalist species could use the area for foraging, but they are not likely to nest within the project area.
Great gray owl *Strix nebulosa*		SE		S	No	No	**Not expected to occur.** Undisturbed mature red fir forests or wet meadows used for roosting and foraging are not present.

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Common Name *Scientific Name*	Federal Status[1]	State Status[1]		Local Status[1]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence
		CESA	CDFG				
Northern goshawk *Accipiter gentilis*			SSC	S SI	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** The project area may contain suitable nesting habitat; however, no nest sites are located within 0.5 miles of the project area. Several northern goshawk detections have been made within 0.5 miles of the project area (TRPA), but the likelihood of northern goshawks nesting within the project area are low due to the proximity of humans and habitat alteration as a result of the Angora Fire.
Osprey *Pandion haliaetus*				SI	No	No	**Low. No Potential to Impact TRPA Threshold Standard.** The project area may be used occasionally for perching, but no known nest sites are located within 0.5 miles of the project area.
Waterfowl (collectively)				SI	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Riparian habitat found in the project area may provide suitable habitat for waterfowl species, but it is unlikely year-round surface water exists in the project area.
Willow flycatcher *Empidonax traillii*		SE		S	No	No	**Low.** The willow flycatcher has very distinct habitat requirements that include meadow size, vegetation type, height, and access to water. While willow flycatcher detections have been made outside of the project area (TRPA), there are no established territories, nesting sites, or documented detections within 0.5 miles of the project area.
Mammals							
American marten *Martes americana*				S	No	No	**Low.** American marten rely on mature forests for foraging, cover, and reproduction. This species is not often found in clear areas, devoid of canopy cover that is characteristic of much of the burned sites in the project area. Therefore, it is unlikely American marten would occur within the project area.
California wolverine *Gulo gulo luteus*		ST	FP	S	No	No	**Not expected to occur.** Suitable alpine habitat is not present in the project area. There are very few documented occurrences in the region.

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		CESA	CDFG				
Mountain beaver *Aplodontia rufa*			SSC		No	No	**No expected to occur.** While riparian and SEZ habitat is present within the project area, it is limited and would not likely support the foraging, cover, reproductive requirements of mountain beaver.
Mule deer *Odocoileus hemionus*				SI	No	Yes	**Low. No Potential to Impact TRPA Threshold Standard.** Stream environment zones (SEZ) are identified as movement and migration corridors according to Chapter 78 of the TRPA Code of Ordinances. While narrow bands of SEZ are located within the project area, none of the proposed improvements will take place in these areas. Therefore, it is unlikely that this project would impact the mule deer population.
Northern flying squirrel *Glaucomys sabrinus*					No	No	**Not expected to occur.** The northern flying squirrel is associated with late seral closed canopy coniferous forests. It is not likely the northern flying squirrel would occur within the project area as the habitat present there does not support the reproductive or cover requirements for this species.
Pacific fisher *Martes pennanti pacifica*	FC	SCT	SSC		No	No	**Not expected to occur.** Appropriate riparian habitat for denning and foraging is not present.
Sierra Nevada red fox *Vulpes vulpes necator*		ST		S	No	No	**Not expected to occur.** Appropriate riparian habitat for denning and foraging is not present. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).
Townsend's big ear bat *Corynorhinus townsendii*			SSC	S	No	No	**Not expected to occur.** There are few occurrences of this species in the Tahoe Basin, and they are not known to occur in the project area. This species is vulnerable to disturbance, so it is not likely they would roost within the highly impacted project area. Because roosting sites (undisturbed caves or cave surrogates) are the most important limiting resource for Townsend's big ear bat (Zeiner et al. 1990), their occurrence in the project area is unlikely.
Fish							
Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*	FT				No	No	**Not expected to occur within the project area.** Suitable habitat for Lahontan Cutthroat Trout is not located within 0.5 miles of the project area. Therefore, activities related to this project are not expected to impact this species.

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		CESA	CDFG				
Lahontan Lake tui chub *Gila bicolor pectinifer*			SSC	S	No	No	**Not expected to occur within the project area.** Suitable habitat for Lahontan Lake tui chub is not located within 0.5 miles of the project area. Therefore, activities related to this project are not expected to impact this species.
Aquatic invertebrates							
Great Basin rams-horn *Helisoma newberryi newberryi*				S	No	No	**Not expected to occur.** Suitable habitat, which includes large lakes and slow rivers with a muddy substrate, does not occur within 0.5 miles of the project area.

[1] Status Codes

No species in the Lake Tahoe Basin are currently listed as "Endangered" by the USFWS under the ESA

FT = Federally Threatened under the ESA
FC = Federal Candidate species for listing as Threatened or Endangered under the ESA
DL = Federally De-listed
SCD = California State Candidate for Delisting
SE = California State Endangered
ST = California State Threatened
SSC = CDFG Species of Special Concern
FP = CDFG Federally Protected
S = USFS Region 5 Sensitive Species
SI = TRPA Special Interest Species

Sources: USFWS 2010, USFS 2010a-i, USDA 2005, USDA 2007, TRPA 2010, TRPA 2006, TRPA 1987, CDFG 2008, CNDDB 2008, and CDFG 2010